

Los Angeles World Airports (LAWA) has prepared this project-level final environmental impact report (Final EIR) for the South Airfield Improvement Project (SAIP), pursuant to the California Environmental Quality Act (CEQA). The SAIP is a component of the LAX Master Plan Program approved by the Los Angeles City Council in December of 2004. The LAX Master Plan was the subject of a certified, program-level environmental impact report (LAX Master Plan Final EIR) and an approved environmental impact statement (LAX Master Plan Final EIS), which were prepared by LAWA and the Federal Aviation Administration, respectively.

The SAIP Final EIR is “tiered” from the LAX Master Plan Final EIR. This means that this Final EIR builds on the work contained in the LAX Master Plan Final EIR, and provides additional project-level information and analysis as necessary for the public and decision makers to evaluate the SAIP as required by CEQA. CEQA encourages public agencies to tier environmental analyses for individual projects from program-level environmental impact reports to eliminate repetitive discussions and to focus the later EIR (such as this SAIP EIR) on issues that may not have been fully addressed at a project-level of detail.

The LAX Master Plan Final EIR dealt with many of the specific issues associated with the SAIP. Accordingly, as required by CEQA, this “tiered” EIR supplements the information and analysis provided in the LAX Master Plan EIR with further detailed information and analysis at the project level. For this reason, the considerable information about the SAIP that is contained in the LAX Master Plan EIR is not repeated in this Final EIR. To aid the reader, however, an effort has been made to provide a brief summary for each of the areas covered in the LAX Master Plan Final EIR, and the location where the reader can locate the prior treatment of those areas.

This Final EIR is prepared in accordance with all requirements of CEQA. This Final EIR incorporates and responds to comments received on the Notice of Preparation for the EIR and on the Draft EIR and includes Corrections and Additions to the Draft EIR. LAWA, the Los Angeles Board of Airport Commissioners and the Los Angeles City Council will use this Final EIR to inform their decisions on the SAIP, as CEQA requires.

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Preface

This document, in conjunction with the previously prepared documents described below, constitutes the Final Environmental Impact Report (Final EIR) for the South Airfield Improvement Project (SAIP) proposed at Los Angeles International Airport (LAX). As further described in the Introduction to this document, the SAIP includes various runway and taxiway improvements proposed for the south airfield complex at LAX. In accordance with the California Environmental Quality Act (CEQA), the City of Los Angeles, as Lead Agency, completed an Environmental Impact Report to address and disclose the potential environmental impacts associated with the proposed project. The City of Los Angeles circulated a Draft EIR regarding the SAIP, received public and agency comments on the Draft EIR, and prepared written responses to those comments - all of which provides the basis for this Final EIR.

Pursuant to CEQA Guidelines 15132, a final EIR consists of:

- (a) The draft EIR or a revision of the draft.
- (b) Comments and recommendations received on the draft EIR either verbatim or in summary.
- (c) A list of persons, organizations, and public agencies commenting on the draft EIR.
- (d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
- (e) Any other information added by the Lead Agency.

Accordingly, the Final EIR for the SAIP consists of two components, as follows:

Draft EIR and Technical Appendices

Volume 1 – Draft EIR: Volume 1 of the Final EIR includes the Draft EIR-Main Document, which was distributed for public review and comment from August 1, 2005 through September 15, 2005.

Volume 2 – Draft EIR Technical Appendices: Volume 2 of the Final EIR consists of the technical appendices (i.e., Appendices A through N) that were developed in conjunction with the Draft EIR.

Responses to Comments and Corrections and Additions to the Draft EIR

Volume 3 - Responses to Comments and Corrections and Additions to the Draft EIR: The second part of the Final EIR consists of a compilation of the comments received on the Draft EIR, and the written responses prepared by the City to those comments. This document includes indices (i.e., lists) of agencies, organizations, and individuals that commented on the Draft EIR, and provides a copy of the comment letters in their original form (i.e., photocopies of comment letters). This document also describes other information, such as a delineation of corrections and additions to information presented in the Draft EIR, which has been added by the City as part of the Final EIR. The information presented herein constitutes the second component of the Final EIR.

All of the documents described above, comprising the Final EIR for the SAIP, are available for public review at:

Karen Hoo
LAWA Administration Building
Environmental Planning
7301 World Way West, 3rd Floor
Los Angeles, CA 90045
(310) 646-3853

I. Introduction and Indices

1.1 Introduction

In compliance with the California Environmental Quality Act (CEQA), the City of Los Angeles has completed this Environmental Impact Report (EIR) relative to local action pertaining to the South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). As described in the Preface of this document, the Final Environmental Impact Report (Final EIR) for the SAIP consists of two components: Volumes 1 and 2, Draft EIR and associated Technical Appendices for the SAIP, and Volume 3 - Responses to Comments and Corrections and Additions to the Draft EIR. This document constitutes the second component of the Final EIR.

A detailed description of the SAIP is provided in Volume 1 of the Final EIR (see Chapter II in the Draft EIR-Main Document). On August 1, 2005, the City of Los Angeles published a Draft EIR for the proposed SAIP. In accordance with CEQA, the Draft EIR was circulated for public review, with the review period closing on September 15, 2005. One public workshop and two stakeholder forums were held during the comment period.

As explained in more detail in Volume 1 of the Final EIR, the SAIP is the first of a number of projects to be implemented pursuant to the previously approved LAX Master Plan. The LAX Master Plan was approved based on a certified, final program-level EIR. Consistent with the LAX Master Plan Final EIR, Los Angeles World Airports (LAWA), the City agency charged with operating and maintaining LAX, proposes to construct a new 75-foot wide parallel taxiway between the two existing south airfield runways to meet the LAX Master Plan objectives as specified in Chapter 2 of the LAX Master Plan Final EIR. To meet the FAA required runway-to-taxiway centerline spacing and to improve runway safety and further prevent runway incursions, the addition of the parallel taxiway would require that the southern-most runway, Runway 7R-25L, be relocated in its entirety 55.42 feet to the south of its current location. The relocation of Runway 7R-25L would include the relocation and replacement of all navigational and visual aids and other associated site work such as utilities, lighting, signage, grading, and drainage. Storm water drainage work associated with these improvements would be conducted consistent with Best Management Practices as outlined in the Standard Urban Storm Water Mitigation Plan (SUSMP) required by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division (WPD). The drainage work included as part of the SAIP is consistent with the Conceptual Drainage Plan (CDP) that was developed pursuant to LAX Master Plan Commitment HWQ-1.

The LAX Master Plan was approved based on a certified program EIR, the LAX Master Plan EIR. A program EIR, under CEQA Guideline 15168, is an EIR prepared for a program or plan-level document that analyzes the potential impacts of the program or plan and implementing activities as they are known at the time the program or plan is approved. Projects implementing the plan or program need only then be analyzed to the extent that they were not analyzed under the program level EIR. The SAIP is such a project. Accordingly, the SAIP EIR is a "project" or "tiered" EIR based upon the LAX Master Plan EIR. Thus, the focus of its analysis is project-specific attributes, information or circumstances not known or present at the time of, and therefore not analyzed in, the LAX Master Plan EIR. Information and analysis presented in the LAX Master Plan EIR need not, and therefore is not, reproduced or redone in the SAIP EIR.

The SAIP would not permanently alter operational capacity at LAX. Thus, most impacts of the SAIP that may not have been fully analyzed in the LAX Master Plan EIR are those that would occur during the approximately 26-month construction period. Accordingly, that, too, is the primary focus of the SAIP EIR. Post-construction operational impacts associated with the SAIP were typically analyzed in the LAX Master Plan EIR and have not changed since that time. Thus, under the tiering provisions of CEQA described above, the SAIP Draft EIR generally is not required to reevaluate post-construction operational impacts already fully analyzed in the LAX Master Plan EIR.

In accordance with CEQA Guideline 15088, the City of Los Angeles prepared responses to all comments received on the Draft EIR. As required by the CEQA Guidelines, the focus of the responses to comments is on "the disposition of significant environmental issues raised." Detailed responses are not provided to comments on the merits of the proposed project or on other topics that do not relate to environmental issues.

This document, which is the second component of the Final EIR, presents the comments received during the public review period for the Draft EIR and provides written responses to those comments. A total of 35 comment letters were received during the public review period. The indices presented at the end of this chapter list the agencies, organizations, and individuals that submitted comments on the Draft EIR. Copies of all comment letters received are provided in Attachment 1 of this document. A total of 613 individual comments resulted from such input. Chapter II and Chapter III of this document present topical responses and individual responses, respectively, prepared by the City of Los Angeles relative to comments received during the review period for the Draft EIR (August 1, 2005 to September 15, 2005). While not required by CEQA, the City has also prepared responses to comments contained in two letters received after the close of the comment period for the Draft EIR. Chapter IV of this document provides corrections and additions to information presented in the Draft EIR.

The format for the responses to comments presents, on a letter-by-letter basis, each comment, which is then followed immediately by a response. The comments and responses are organized and grouped into categories based on the affiliation of the commentor. The comments are presented in the following order: state agencies, regional agencies, local agencies, and public comments (i.e., letters from private citizens, organizations, etc.).

An alphanumeric index system is used to identify each comment and response, and is keyed to each letter and the individual comments therein. For example, the first letter within the group of state agencies submitting comments on the Draft EIR is from the California Air Resources Board, and the text of the letter is considered to have two individual comments. The subject letter was assigned the alphanumeric label "SAIP-AS00001," representing "South Airfield Improvement Project-Agency-State-Letter No. 1." The two individual comments within the letter are labeled as SAIP-AS00001-1 and SAIP-AS00001-2. The same basic format and approach is used for the comment letters from regional agencies ("AR"), local agencies ("AL"), and public comments ("PC").

The following are the prefix codes used for categorizing the comment letter types:

<u>Letter ID Prefix</u>	<u>Description</u>
AS	State Agency
AR	Regional Agency
AL	Local Agency
PC	Public Comment

To assist the reader's review and use of the responses to comments, three indices are provided. These indices provide the alphanumeric label number, commentor name, affiliation (i.e., name of agency or organization that the author represents), and date (if provided) of each comment letter. The first index lists all of the comment letters by alphanumeric label number, the second index lists all of the comment letters by the commentor's last name, and the third index lists all of the comment letters by the affiliation, if any, of the commentor. Some comment letters were signed by multiple parties. The indices include all signatories to each letter received. However, only the first signatory is identified in Chapter 3.

The responses to comments consist of both topical responses and individual responses. Within the 613 individual comments submitted on the Draft EIR, many of the same issues were raised by multiple commentors, and many comments pertained to a general theme that was common to multiple commentors. To respond to these comments, topical responses were prepared that provide a single comprehensive discussion of the issue of concern. A total of nine topical responses are provided. Each topical response ("TR") has an alphanumeric designation related to its general subject matter. For example, topical responses pertaining to the SAIP project description are designated "TR-SAIP-PD." Each topical response is also identified by a number. The first topical response pertaining to the SAIP project description is thus designated "TR-SAIP-PD-1." Individual comments are cross-referenced to these topical responses. The topical responses are provided in Chapter II.

Chapter III provides individual comments and responses, presented on a letter-by-letter basis. Each comment is typed exactly as it appears in the original comment letter. No corrections to typographical errors or other edits to the original comments were made. A copy of each original comment letter is provided in Attachment 1 of this document.

Immediately following each typed comment is a written response developed by the City of Los Angeles. In many instances, the response to a particular comment may refer to the response(s) to another comment(s) that expressed the same concern or is otherwise related. Cross-referencing of responses uses the alphanumeric index system described above. For example, a response may indicate "Please see Response to Comment SAIP-AL00001-2" if that response addresses the same concern expressed in a different comment. In cases where the content of a comment letter is identical to the content of another comment letter, but the addressee is different, a single set of responses is provided for both letters. In such instances, the comment portion of an identical letter states "The content of this comment letter is identical to comment letter [ID number]; please refer to the responses to comment letter [ID number]."

Together with the Draft EIR, the responses to comments, along with corrections and additions to the Draft EIR, constitute the Final EIR. Pursuant to CEQA, the Final EIR is not circulated for another round of comments and responses. The Final EIR is presented to the decision-makers for their use in considering the project. Interested persons may comment on the Final EIR, including these

responses, in the course of the decision-making process related to the SAIP; however, the City is not required to provide responses to such comments.

1.2 Indices of Comment Letters

Following are three indices that organize the comment letters by letter identification number, commentor, and affiliation.

Index by Letter Identification (ID) Number

Letter ID	Commentor	Affiliation/Agency	Department	Date
SAIP-AS00001	Witherspoon, Catherine	California Environmental Protection Agency	Air Resources Board	9/14/2005
SAIP-AS00002	Powell, Cheryl J.	State of California	DOT/District 7	9/14/2005
SAIP-AS00003	Mulligan, Michael J.	State of California	Department of Fish and Game	9/14/2005
SAIP-AS00004	Roberts, Terry	State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	9/15/2005
SAIP-AS00005	Roberts, Terry	State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	9/15/2005
SAIP-AR00001	Smith, Steve	South Coast Air Quality Management District		9/15/2005
SAIP-AL00001	Hartl, James E.	County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	8/22/2005
SAIP-AL00001	Hoffman, Ronald D.	County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	8/22/2005
SAIP-AL00002	Perlmutter, Robert	Shute, Mihaly & Weinberger LLP		9/9/2005
SAIP-AL00003	Brown, Tim	Inglewood Unified School District		9/12/2005
SAIP-AL00004	Hart, Berne C.	Chevalier, Allen & Lichman, LLP		9/14/2005
SAIP-AL00005	Perlmutter, Robert S.	Shute, Mihaly & Weinberger LLP		9/14/2005
SAIP-AL00005	Ross, Gabriel M.B.	Shute, Mihaly & Weinberger LLP		9/14/2005
SAIP-AL00006	Perlmutter, Robert S.	Shute, Mihaly & Weinberger LLP		9/29/2005
SAIP-PC00001	Hyra, J A.	None Provided		7/26/2005
SAIP-PC00002	Abbott, Dwight	None Provided		8/1/2005
SAIP-PC00003	Whitcomb, Bernice	None Provided		8/29/2005
SAIP-PC00004	Gilbert, Robert L.	Los Angeles World Airports	Stakeholder Liaison Office	9/12/2005
SAIP-PC00005	Aguilar, Pricilla	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Arauz, Janice	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Cornejo, Alex	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Cornejo, Lupe	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Cornejo, Tony	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005

Index by Letter Identification (ID) Number

Letter ID	Commentor	Affiliation/Agency	Department	Date
SAIP-PC00005	Jimenez, Addys	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Jimenez, Adolfo	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Medina, Hilda	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Ramirez, Sonia	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00005	Torres, Roger	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005
SAIP-PC00006	Acherman, Robert	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Bonner, Rex	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Cope, Danna	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Curtiss, D. A. Curt	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Dragone, John	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Hamilton, Patricia	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Hefner, Roy	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Rubin, Martin	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Saenz, Edgar	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Sambrano, Diane	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Schneider, Denny	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Schneider, Nan	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Tena-Barajas, Flor	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00006	Williams, Jr., James	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005
SAIP-PC00007	Anderson, Michael H.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Gee-Wilson, Susan	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Hyatt, Richard	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Janneh, Mustapha	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Leon, Domingo	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Mashugh, David	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	O'Neil, James S.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Provost, Diana	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Russell, Jon D.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005

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Letter ID	Commentor	Affiliation/Agency	Department	Date
SAIP-PC00007	Talichet, David	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00007	Wiley, Roland A.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005
SAIP-PC00008	Jones, John	None Provided		9/12/2005
SAIP-PC00008	Jones, Wendy	None Provided		9/12/2005
SAIP-PC00009	Rubin, Martin	Concerned Residents Against Airport Pollution		9/13/2005
SAIP-PC00010	Peterson, Linda	Los Angeles International Airport Advisory Committee		9/14/2005
SAIP-PC00011	Abbott, A. Dwight	None Provided		9/14/2005
SAIP-PC00012	Cope, Danna	None Provided		9/8/2005
SAIP-PC00013	Jones, John	None Provided		9/10/2005
SAIP-PC00013	Jones, Wendy	None Provided		9/10/2005
SAIP-PC00014	McCarty, John M.	None Provided		9/14/2005
SAIP-PC00014	McCarty, Shirley C.	None Provided		9/14/2005
SAIP-PC00015	Fucci, John T.	Kilroy Realty Corporation		9/15/2005
SAIP-PC00016	Waters, Maxine	U.S. House of Representatives	35th Congressional District	9/15/2005
SAIP-PC00017	Sambrano, L. Diane	None Provided		9/15/2005
SAIP-PC00018	Hurst, Richard	El Segundo Aviation Safety and Noise Abatement Committee		9/15/2005
SAIP-PC00019	Schneider, Denny	None Provided		9/15/2005
SAIP-PC00020	Schneider, Dennis J.	LAX/Community Noise Roundtable		9/15/2005
SAIP-PC00021	Hamilton, Patricia	None Provided		9/14/2005
SAIP-PC00022	Garnholz, Liz	El Segundo Aviation-Safety and Noise-Abatement Committee		9/14/2005
SAIP-PC00023	Hamilton, Patricia	None Provided		9/15/2005

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Commentor	Affiliation/Agency	Department	Date	Letter ID
Abbott, A. Dwight	None Provided		9/14/2005	SAIP-PC00011
Abbott, Dwight	None Provided		8/1/2005	SAIP-PC00002
Acherman, Robert	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Aguilar, Pricilla	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Anderson, Michael H.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Arauz, Janice	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Bonner, Rex	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Brown, Tim	Inglewood Unified School District		9/12/2005	SAIP-AL00003
Cope, Danna	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Cope, Danna	None Provided		9/8/2005	SAIP-PC00012
Cornejo, Alex	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Cornejo, Lupe	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Cornejo, Tony	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Curtiss, D. A. Curt	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Dragone, John	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Fucci, John T.	Kilroy Realty Corporation		9/15/2005	SAIP-PC00015
Garnholz, Liz	El Segundo Aviation-Safety and Noise-Abatement Committee		9/14/2005	SAIP-PC00022
Gee-Wilson, Susan	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Gilbert, Robert L.	Los Angeles World Airports	Stakeholder Liaison Office	9/12/2005	SAIP-PC00004
Hamilton, Patricia	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Hamilton, Patricia	None Provided		9/14/2005	SAIP-PC00021
Hamilton, Patricia	None Provided		9/15/2005	SAIP-PC00023
Hart, Berne C.	Chevalier, Allen & Lichman, LLP		9/14/2005	SAIP-AL00004
Hartl, James E.	County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	8/22/2005	SAIP-AL00001
Hefner, Roy	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Hoffman, Ronald D.	County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	8/22/2005	SAIP-AL00001

Index by Commentor

Commentor	Affiliation/Agency	Department	Date	Letter ID
Hurst, Richard	El Segundo Aviation Safety and Noise Abatement Committee		9/15/2005	SAIP-PC00018
Hyatt, Richard	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Hyra, J A.	None Provided		7/26/2005	SAIP-PC00001
Janneh, Mustapha	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Jimenez, Addys	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Jimenez, Adolfo	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Jones, John	None Provided		9/12/2005	SAIP-PC00008
Jones, John	None Provided		9/10/2005	SAIP-PC00013
Jones, Wendy	None Provided		9/12/2005	SAIP-PC00008
Jones, Wendy	None Provided		9/10/2005	SAIP-PC00013
Leon, Domingo	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Mashugh, David	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
McCarty, John M.	None Provided		9/14/2005	SAIP-PC00014
McCarty, Shirley C.	None Provided		9/14/2005	SAIP-PC00014
Medina, Hilda	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Mulligan, Michael J.	State of California	Department of Fish and Game	9/14/2005	SAIP-AS00003
O'Neil, James S.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Perlmutter, Robert	Shute, Mihaly & Weinberger LLP		9/9/2005	SAIP-AL00002
Perlmutter, Robert S.	Shute, Mihaly & Weinberger LLP		9/14/2005	SAIP-AL00005
Perlmutter, Robert S.	Shute, Mihaly & Weinberger LLP		9/29/2005	SAIP-AL00006
Peterson, Linda	Los Angeles International Airport Advisory Committee		9/14/2005	SAIP-PC00010
Powell, Cheryl J.	State of California	DOT/District 7	9/14/2005	SAIP-AS00002
Provost, Diana	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Ramirez, Sonia	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Roberts, Terry	State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	9/15/2005	SAIP-AS00005

Index by Commentor

Commentor	Affiliation/Agency	Department	Date	Letter ID
Roberts, Terry	State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	9/15/2005	SAIP-AS00004
Ross, Gabriel M.B.	Shute, Mihaly & Weinberger LLP		9/14/2005	SAIP-AL00005
Rubin, Martin	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Rubin, Martin	Concerned Residents Against Airport Pollution		9/13/2005	SAIP-PC00009
Russell, Jon D.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Saenz, Edgar	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Sambrano, Diane	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Sambrano, L. Diane	None Provided		9/15/2005	SAIP-PC00017
Schneider, Dennis J.	LAX/Community Noise Roundtable		9/15/2005	SAIP-PC00020
Schneider, Denny	None Provided		9/15/2005	SAIP-PC00019
Schneider, Denny	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Schneider, Nan	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Smith, Steve	South Coast Air Quality Management District		9/15/2005	SAIP-AR00001
Talichet, David	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Tena-Barajas, Flor	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Torres, Roger	LAX Master Plan Stakeholder Committee - Group 1		9/10/2005	SAIP-PC00005
Waters, Maxine	U.S. House of Representatives	35th Congressional District	9/15/2005	SAIP-PC00016
Whitcomb, Bernice	None Provided		8/29/2005	SAIP-PC00003
Wiley, Roland A.	LAX Master Plan Stakeholder Committee - Group 3		9/10/2005	SAIP-PC00007
Williams, Jr., James	LAX Master Plan Stakeholder Committee - Group 2		9/10/2005	SAIP-PC00006
Witherspoon, Catherine	California Environmental Protection Agency	Air Resources Board	9/14/2005	SAIP-AS00001

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California Environmental Protection Agency	Air Resources Board	Witherspoon, Catherine	9/14/2005	SAIP-AS00001
Chevalier, Allen & Lichman, LLP		Hart, Berne C.	9/14/2005	SAIP-AL00004
Concerned Residents Against Airport Pollution		Rubin, Martin	9/13/2005	SAIP-PC00009
County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	Hartl, James E.	8/22/2005	SAIP-AL00001
County of Los Angeles	Regional Planning Commission, Airport Land Use Commission	Hoffman, Ronald D.	8/22/2005	SAIP-AL00001
El Segundo Aviation Safety and Noise Abatement Committee		Hurst, Richard	9/15/2005	SAIP-PC00018
El Segundo Aviation-Safety and Noise-Abatement Committee		Garnholz, Liz	9/14/2005	SAIP-PC00022
Inglewood Unified School District		Brown, Tim	9/12/2005	SAIP-AL00003
Kilroy Realty Corporation		Fucci, John T.	9/15/2005	SAIP-PC00015
LAX Master Plan Stakeholder Committee - Group 1		Aguilar, Pricilla	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Arauz, Janice	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Cornejo, Alex	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Cornejo, Lupe	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Cornejo, Tony	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Jimenez, Addys	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Jimenez, Adolfo	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Medina, Hilda	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Ramirez, Sonia	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 1		Torres, Roger	9/10/2005	SAIP-PC00005
LAX Master Plan Stakeholder Committee - Group 2		Acherman, Robert	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Bonner, Rex	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Cope, Danna	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Curtiss, D. A. Curt	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Dragone, John	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Hamilton, Patricia	9/10/2005	SAIP-PC00006

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LAX Master Plan Stakeholder Committee - Group 2		Hefner, Roy	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Rubin, Martin	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Saenz, Edgar	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Sambrano, Diane	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Schneider, Denny	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Schneider, Nan	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Tena-Barajas, Flor	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 2		Williams, Jr., James	9/10/2005	SAIP-PC00006
LAX Master Plan Stakeholder Committee - Group 3		Anderson, Michael H.	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Gee-Wilson, Susan	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Hyatt, Richard	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Janneh, Mustapha	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Leon, Domingo	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Mashugh, David	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		O'Neil, James S.	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Provost, Diana	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Russell, Jon D.	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Talichet, David	9/10/2005	SAIP-PC00007
LAX Master Plan Stakeholder Committee - Group 3		Wiley, Roland A.	9/10/2005	SAIP-PC00007
LAX/Community Noise Roundtable		Schneider, Dennis J.	9/15/2005	SAIP-PC00020
Los Angeles International Airport Advisory Committee		Peterson, Linda	9/14/2005	SAIP-PC00010
Los Angeles World Airports	Stakeholder Liaison Office	Gilbert, Robert L.	9/12/2005	SAIP-PC00004
None Provided		Abbott, A. Dwight	9/14/2005	SAIP-PC00011
None Provided		Abbott, Dwight	8/1/2005	SAIP-PC00002
None Provided		Cope, Danna	9/8/2005	SAIP-PC00012
None Provided		Hamilton, Patricia	9/14/2005	SAIP-PC00021
None Provided		Hamilton, Patricia	9/15/2005	SAIP-PC00023
None Provided		Hyra, J A.	7/26/2005	SAIP-PC00001

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None Provided		Jones, John	9/12/2005	SAIP-PC00008
None Provided		Jones, John	9/10/2005	SAIP-PC00013
None Provided		Jones, Wendy	9/12/2005	SAIP-PC00008
None Provided		Jones, Wendy	9/10/2005	SAIP-PC00013
None Provided		McCarty, John M.	9/14/2005	SAIP-PC00014
None Provided		McCarty, Shirley C.	9/14/2005	SAIP-PC00014
None Provided		Sambrano, L. Diane	9/15/2005	SAIP-PC00017
None Provided		Schneider, Denny	9/15/2005	SAIP-PC00019
None Provided		Whitcomb, Bernice	8/29/2005	SAIP-PC00003
Shute, Mihaly & Weinberger LLP		Perlmutter, Robert	9/9/2005	SAIP-AL00002
Shute, Mihaly & Weinberger LLP		Perlmutter, Robert S.	9/14/2005	SAIP-AL00005
Shute, Mihaly & Weinberger LLP		Perlmutter, Robert S.	9/29/2005	SAIP-AL00006
Shute, Mihaly & Weinberger LLP		Ross, Gabriel M.B.	9/14/2005	SAIP-AL00005
South Coast Air Quality Management District		Smith, Steve	9/15/2005	SAIP-AR00001
State of California	Department of Fish and Game	Mulligan, Michael J.	9/14/2005	SAIP-AS00003
State of California	DOT/District 7	Powell, Cheryl J.	9/14/2005	SAIP-AS00002
State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	Roberts, Terry	9/15/2005	SAIP-AS00005
State of California	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	Roberts, Terry	9/15/2005	SAIP-AS00004
U.S. House of Representatives	35th Congressional District	Waters, Maxine	9/15/2005	SAIP-PC00016

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II. Topical Responses

2.1 TR-SAIP-PD-1 - Purpose of and Need for the SAIP

There are three misconceptions that arise in comments on the SAIP Draft EIR. These misconceptions are that:

- the SAIP has a purpose other than to improve safety at LAX;
- the SAIP would substantially affect LAX's ability to accommodate the Airbus A380 and other "new large aircraft (NLA),"¹ and
- the SAIP affects the regional distribution of airport capacity and usage and therefore attract additional demand to LAX that would otherwise be satisfied by other airports in the region.

None of these claims is correct. The basic purpose of the SAIP is to improve safety at LAX. The SAIP's purpose is not to accommodate NLA, including the Airbus A380. In fact, NLA could operate at LAX today without the SAIP. The SAIP also does not affect airport capacity and does not affect the regional distribution of air traffic.

Issues relating to the purpose and need for the LAX Master Plan as a whole were addressed in the LAX Master Plan and the LAX Master Plan EIR, and to that extent those issues are not unique or related to the SAIP, they are not re-analyzed or addressed in detail in the SAIP EIR.

The primary purpose of the SAIP is to reduce the existing potential for runway incursions within the south airfield at LAX and to reduce the risk that an incursion results in a serious accident. This is described in more detail below, and in Chapter 2 of the SAIP Draft EIR and Chapter 2 of the LAX Master Plan.

The Primary Purpose of the SAIP is to Reduce the Potential for Runway Incursions

As stated in the LAX Master Plan and in Chapter 2 of the SAIP Draft EIR, the primary purpose of the SAIP is to improve safety by minimizing the potential for runway incursions in the south airfield complex at LAX. The existing runway incursion risk at LAX, and need for airfield improvements to help address and reduce that risk, were clearly acknowledged and addressed in the LAX Master Plan EIS/EIR. (Please see, in particular Topical Response TR-SAF-1 in Part II of the LAX Master Plan Final EIR.)

The South Airfield and NLA Studies (Study) referenced in Chapter 2 of the SAIP Draft EIR, highlight the fact that runway incursions represent an extremely serious safety concern at U.S. airports, particularly at LAX. Several other studies and reports assess runway incursions at airports around the country and at LAX. These studies include the National Aeronautics and Space Administration (NASA) "Phase I Baseline Simulation and Phase II Alternatives Simulation," the LAX Master Plan Update, the Taxiway B16 Operational Analysis, and Runway Incursion Action Team (RIAT) studies that have been conducted at various airports throughout the U.S.

¹ New Large Aircraft (NLA) includes the Airbus A380.

According to the latest FAA Runway Safety Report², "[f]or the four-year period [FY2000 through 2003], LAX led the nation in the total number of runway incursions (34 events), number of COMM/COMM runway incursions (30 events), and the overall number of Category A and B runway incursions (11 events). At LAX, ten of these Category A and B incursions involved two commercial aircraft and almost half involved an aircraft that failed to hold short of runway 7R-25R after landing on runway 7R-25L. These closely spaced parallel runways handle high numbers of takeoffs and landings. Upon exiting the runway, the pilot has only a short distance to stop the aircraft before coming to the other parallel runway." The report also states that "since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions. This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors. LAX has reported zero Category A runway incursions for the past three fiscal years. From FY 2000 through FY 2003, the number of Category B runway incursions at LAX has decreased from four events to zero events."

The primary purpose of the SAIP is to further enhance the safety of the runways at LAX. Specifically, relocating Runway 7R-25L and constructing a new center taxiway between the two south airfield runways will minimize the potential for runway incursions, which could result in serious aircraft accident.³ An expert's report included as an appendix to the Draft EIR describes the operational characteristics of the current runway configurations that are the primary cause for LAX's runway incursions, as well as the improvements in the Master Plan and the SAIP that will remedy this issue. (Draft EIR, Appendix C, Interim Operational Plan Analysis Existing and Future Runway Operations.) In addition, in two recent letters dated July 25, 2005, and August 2, 2005, the FAA has cited an increase in recent runway incursions at LAX, taken the position that the SAIP improvements will prevent many of the runway incursions in the future, and demanded completion of the SAIP without delay.

Since June 1, 2005, seven runway incursions have occurred at LAX, with six of these occurring on the south airfield. Details of each of these runway incursions are presented below:

05/23/05 (Incursion #1)

A turboprop was instructed to "position and hold" on Runway 7L-25R. The pilot correctly read back the clearance. On the next transmission, the controller cleared a B757 to cross Runway 7L-25R at Taxiway November. The controller then observed the turboprop approaching rotation at Taxiway Golf without a takeoff clearance with the B757 in the middle of Runway 7L-25R. **This was a Category D Runway Incursion.**

² FAA Runway Safety Report, Runway Incursion Trends and Initiatives at Towered Airports in the United States, FY 2000-FY 2003, August 2004

³ The FAA tracks four categories of runway incursions - A, B, C, D:

Category A: Separation decreases to the point that participants take extreme action to narrowly avoid a collision, or the event results in a collision.

Category B: Separation decreases, and there is a significant potential for a collision.

Category C: Separation decreases, but there is ample time and distance to avoid a collision.

Category D: There is little or no chance of collision, but the definition of a runway incursion is met.

See http://www.faa.gov/about/plans_reports/performance/performance/targets/details/05S4_Runway_Incursions.htm

06/19/05 (Incursion #2)

A Regional jet landed on Runway 7R-25L, exited at Taxiway Kilo, and was instructed to "hold short of Runway 7L-25R." The pilot correctly read back the instruction. The controller cleared a second regional jet for takeoff on Runway 7L-25R. The controller then observed the first regional jet cross the Runway 7L-25R hold bar and stop prior to the runway edge line, so he cancelled the takeoff clearance of the second regional jet, which aborted takeoff. **This was a Category C Runway Incursion.**

06/21/05 (Incursion #3)

A B737 landed on Runway 7R-25L and exited at Taxiway Kilo. The pilot was instructed to hold short of Runway 7L-25R. The pilot correctly read back the instruction. A MD80 was on takeoff roll on Runway 7L-25R when the pilot of the B737 advised he was "slightly" beyond the hold short bars. The B737 pilot was advised of departing traffic, and the MD80 continued its departure. **This was a Category D Runway Incursion.**

06/22/05 (Incursion #4)

A B737 landed on Runway 6L-24R and was cleared to cross Runway 6R-24L. The pilot then heard a go-around and observed landing lights at the departure end of Runway 6R-24L, so he stopped to confirm his crossing instructions. His initial call received no response and after the second call he was told to standby. The controller then cleared a B737 for takeoff on Runway 6R-24L. After a third call for verification on crossing instructions, the controller replied, "Negative, hold short of Runway 6R-24L." The pilot advised he was already stopped beyond the hold bars. The departing B737 continued its departure. **This was a Category D Runway Incursion.**

07/1/05 (Incursion #5)

A regional jet landed on Runway 7R-25L and exited at Taxiway Kilo. A turboprop was departing Runway 7L-25R when the controller observed the regional jet pass the hold bar and stop at the edge line of Runway 7L-25R. The turboprop aborted takeoff after the clearance was cancelled. **This was a Category D Runway Incursion.**

07/28/05 (Incursion #6)

A Cessna turboprop aircraft was instructed to hold short of Runway 7L-25R at Taxiway Golf. A B757 was then cleared for takeoff on Runway 7L-25R. The B757 pilot questioned the takeoff clearance when he observed the Cessna crossing the runway in front of him. The controller observed the Cessna clearing the runway, so he again cleared the B757 for takeoff. **This was a Category D Runway Incursion.**

In light of these recent incursions and the threat of future incursions, the SAIP improvements are necessary to prevent runway incursions at LAX in the future.

The FAA defines runway incursions (in part) as, "[a]ny occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, intending to takeoff, landing or intending to land." A review of runway incursions by the FAA throughout the U.S. revealed the following facts:

- weather is not a factor in 89 percent of runway incursions;
- pilots taxiing onto runways or taxiways without clearance accounted for 62 percent of incursions;

- pilots landing or departing without clearance accounted for 23 percent of incursions;
- pilots landing on the wrong runway accounted for 10 percent of incursions;
- pilot distractions accounted for 17 percent of incursions;
- pilot disoriented or lost during 12 percent of incursions;
- pilots not being familiar with air traffic control procedures or language accounted for 22 percent of incursions;
- pilots not familiar with the airport accounted for 19 percent of incursions;
- general aviation aircraft are involved in 69 percent of all runway incursions;
- low time pilots (less than 100 hrs) account for 32 percent of all runway incursions;
- high time pilots (greater than 3000 hrs) account for 10 percent of incursions;
- the top five aircraft involved in runway incursions were all single engine, general aviation airplanes.

This demonstrates that there is no single or simple cause of runway incursions, and that a variety of circumstances that may lead to potentially serious consequences. Factors that have been shown to influence the rate of runway incursions include airfield layout, controller workload, pilot/controller miscommunications, day/nighttime visual aids, and other human factors. The factor that is not human-related is the configuration of the airfield. Thus, reconfiguring the south airfield is a key component in reducing runway incursions at LAX and reducing the risk that a runway incursion will result in a serious accident. Accordingly, the SAIP is a key component of a multifaceted approach to improving safety at LAX.

The efforts LAWA has already implemented to help reduce both the frequency and severity of runway incursions are detailed, in part, in FAA Runway Safety Report - Runway Incursion Trends and Initiatives at Towered Airports in the United States, FY 2000 - FY 2003. This report is available at www.faa.gov. Page 39 of the report states: "Since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions. This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors."

Despite the ongoing efforts and improvement in safety, as shown by the recent spate of potentially serious runway incursions at the south airfield, the configuration of the south airfield remains a primary cause of incursions and therefore a serious threat to overall airport safety. The SAIP is thus key to reducing both the frequency and severity of runway incursions at LAX.

Airfield Geometry

As reported in Section 10 of the Final Report for the South Airfield and NLA Studies, the location and geometry of several taxiways off Runway 7R-25L were found to be significant factors contributing to runway incursions at LAX. Runway incursions at LAX most often occur at Taxiways K, M, N, and P, which serve the south parallel runways 7R-25L and 7L-25R. Most of the runway incursions occur on these taxiways as a result of a combination of factors. The Central Terminal Area (CTA) is located roughly at the mid-point of Runways 7R-25L and 7L-25R. Pilots try to shorten their taxi route by exiting off Runway 7R-25L at the closest taxiway exit while maintaining a higher taxi exit speed in order to reach their gate in the shortest possible time. The higher speed does not allow adequate time or distance to stop their aircraft at the Runway 7L-25R holding position. This, combined with the pilots' misjudgment of the adequacy of available space between Runways

7R-25L and 7L-25R to accommodate two aircraft, results in the aircraft entering onto Runway 7L-25R. This misjudgment is most often associated with the need for controllers to "stack" aircraft between Runways 7R-25L and 7L-25R.

The potential for runway incursions is also exacerbated by the fact that a majority of the high-speed exit taxiways in the south airfield at LAX do not meet the FAA's currently established geometric standards. New FAA standards call for the inclusion of long and gentle spiral curves along the centerline of the taxiways which are combined with wide-throat entrances.

The Proposed Improvements Will Reduce the Potential for Runway Incursions

The SAIP improvements propose a new center taxiway located midpoint between Runways 7R-25L and 7L-25R. Aircraft landing on Runway 7R-25L – the primary landing runway on the South Airfield of LAX, will then be routed to the center taxiway and will hold parallel to the runway until air traffic controllers give clearance to taxi forward, turn and cross Runway 7L-25R. During west-flow operations, the new required westward turn will eliminate the potential of aircraft accidentally encroaching onto Runway 7L-25R when it is occupied.

As noted in Chapter 2 of the SAIP Draft EIR, the new center parallel taxiway is being designed to accommodate Airplane Design Group V (ADG-V), which based on the FAA's classification, includes aircraft with wingspan of up to, but not including 214 feet. The Boeing 747-400 is a typical aircraft of ADG-V. The classification of the taxiway as ADG-V dictates the geometric layout and separation requirements. Accordingly, this new parallel taxiway will be 75 feet wide and will be separated by 400 feet to either runway in the south complex.

In short, recognition of the existing runway incursion problem at LAX, and the need to provide runway and taxiway improvements to help address and reduce that risk, have always been a fundamental part of the LAX Master Plan process. The primary purpose of the SAIP, as the first project to be implemented under the approved LAX Master Plan, is to reduce runway incursions and to reduce the risk that runway incursions would result in a serious accident.

Relationship between New Large Aircraft, Including the Airbus A380, and the SAIP

As stated on page II-2 of the SAIP Draft EIR, it is anticipated that several international air carriers operating at LAX will initiate A380 service at LAX in the 2007 timeframe, regardless of whether the SAIP is approved and implemented. The impending operation of the NLA, including the A380, at LAX with or without any of the LAX Master Plan improvements was also acknowledged and analyzed in the LAX Master Plan EIS/EIR (See Response to Comment PHM00039-3 in Part II of the LAX Master Plan Final EIR. Indeed, NLA operations at LAX were assumed within the No Action/No Project Alternative). The ability of LAX to accommodate the A380 does not depend on the SAIP, and failure to approve and implement the SAIP would not preclude the A380 from operating at LAX. Accordingly, contrary to a number of comments to that effect, the purpose of the SAIP is not to allow LAX to accept the A380 or NLA generally. Moreover, because NLA service will occur regardless of the SAIP, potential environmental impacts of NLA service are not potential environmental impacts of the SAIP.

The following summarizes some of the key aspects of how the nature and operation of the A380, or other NLA, relate to the existing and proposed design of the south airfield.

The A380, with a wingspan of over 261 feet, is classified by the FAA as Airplane Design Group VI aircraft. The dimensional requirements (pavement widths and separations) for Group VI aircraft exceed those of Group V aircraft, such as the Boeing 747. The recommended taxiway and runway widths for Group VI aircraft are 100 feet and 200 feet respectively.

Existing Runway 7R-25L is 200 feet wide and is thus able to accommodate Group VI (A380) aircraft operations. Partly due to its width (50 feet wider than any other LAX runway), Runway 7R-25L has already been designated, in the interim basis⁴, as the primary runway for all Group VI aircraft arrival and departure operations. The ability of existing Runway 7R-25L to accommodate arrivals and departures of NLA was analyzed in the LAX Master Plan EIR (see Response to Comment AR00003-60 in Part II of the LAX Master Plan Final EIR).

Operations of NLA on the proposed center taxiway would be restricted since the separation distance between the centerline taxiway and the adjacent runways does not meet the recommended separation for Group VI aircraft. Thus, as is already planned, NLA would primarily utilize existing Taxiways A, AA, and S, and the west portions of Existing Taxiway C and B to reach either the existing or relocated Runway 7R-25L.

Because NLA will operate at LAX regardless of the SAIP and in the timeframe covered by the LAX Master Plan, the potential operational impacts of including the A380 in the aircraft fleet mix at LAX in the future were included in the analyses contained in the LAX Master Plan EIS/EIR. (See Section 2.3.7 (page 2-12) of the LAX Master Plan Final EIR.)

Regional Approach and the SAIP

The SAIP does not alter the long-term capacity of LAX, and therefore does not affect the distribution of air traffic among regional airports or LAWA's ability to deal with that distribution in the future. Where and how future aviation demand is accommodated in the region is not related to the serious runway incursion risk at LAX that needs to be addressed immediately.

The issue of how the LAX Master Plan is part of a regional approach to accommodating future commercial aviation demand in southern California was thoroughly addressed in the LAX Master Plan EIS/EIR. (See, in particular, Topical Response TR-RC-1 in Part II of the LAX Master Plan Final EIR.) Nothing has changed with respect to the SAIP regarding that issue and decision made in the LAX Master Plan to accommodate a certain level of regional air traffic at LAX. Under the tiering provisions of CEQA, the distribution of air traffic among airports in the region need not be addressed again in the SAIP EIR.

Conclusion

In summary, the primary purpose of the SAIP is to address the existing runway incursion problem at LAX, which occurs primarily in the south airfield. The SAIP does not alter the airport's ability to receive the A380 or NLA generally, nor does it differ from what is expected regarding NLA under the Master Plan. As noted above, the introduction of NLA at LAX is anticipated to occur in the future regardless of whether the SAIP is approved. The SAIP is specific to a discrete issue, runway incursions, that is particular to LAX, and is not related to a regional approach to accommodating commercial aviation demand in southern California.

⁴ The LAX Master Plan anticipates permanent, long-term facilities for NLA, including the reconfiguration of the north complex at LAX to meet FAA ADG-VI airfield dimensional standards.

2.2 TR- SAIP-PD-2 - Relationship of the SAIP Tiered EIR to the LAX Master Plan EIR

The SAIP EIR is "tiered" from the LAX Master Plan EIR. Tiering is a streamlining process whereby an EIR is prepared for a "high level" planning action such as the adoption of a master plan, and then is relied upon and augmented by a tiered EIR for a specific project implementing the plan or a portion of the plan. CEQA specifically encourages tiering of environmental review "whenever feasible." Pub. Res. Code § 21093; see also CEQA Guidelines 15152, 15168.

Tiering is appropriate in this situation and all of the requisite elements for preparing and relying on a tiered EIR are present. "Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis of foreseeable impacts to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed." CEQA Guideline 15152(b).

Under this structure, it is not necessary to reevaluate potential impacts of the tiered project where those impacts have been evaluated in the program EIR. CEQA Guideline 15168(c). Typically, a plan will describe implementation projects in a more general level of detail, and thus the EIR for the plan also evaluates the implementation project at a similarly general level of detail. This is specifically permitted by CEQA Guideline 15145. The tiered EIR then evaluates any potential new impacts or changes in the severity of impacts that may appear from the additional detail developed in the process of designing and proposing the specific implementation project.

Here, the LAX Master Plan analyzed the SAIP at a relatively thorough level for a program-level EIR because the SAIP is the first implementation project under the LAX Master Plan and it was largely designed and well defined at the time the LAX Master Plan Final EIR was prepared and certified. Under the tiering process therefore, to avoid repetition, the SAIP Draft EIR only analyzes the potential impacts of the project that were not fully analyzed in the LAX Master Plan EIR, or that result from characteristics or components of the SAIP that were not known at the time the LAX Master Plan EIR was prepared, or from any external circumstances that may have changed since that time. Moreover, as explained further in Topical Response TR-SAIP-GEN-3, the LAX Master Plan EIR contains a great number of mitigation measures applicable to Master Plan projects, including the SAIP. Thus, the SAIP Draft EIR began with the vast majority of potentially feasible mitigation measures already analyzed and defined.

In determining which impact categories the SAIP Draft EIR would analyze, LAWA carefully reviewed the LAX Master Plan EIR against existing conditions and the most current and detailed description of the SAIP and determined, based on that review and the supporting administrative record, which categories required further analysis. In terms of direct impacts of SAIP construction, these are hydrology/water quality, off-airport surface transportation, air quality, including airport operational impacts during construction and human health risks, noise (including both construction noise and off-airport operational noise during construction), and biotic resources. For all other

impact categories, the LAX Master Plan EIR sufficiently analyzed the potential direct impacts of SAIP construction and impacts occurring during the construction period unrelated to the SAIP. For the purposes of readability, continuity and full disclosure, those impact categories not re-analyzed in the SAIP Draft EIR are briefly described in Chapter 5.

Because the SAIP generally will not alter the airport's capacity or operations in the long-term (see Topical Response TR-SAIP-PD-3), with two exceptions, LAWA determined based on its analysis and the supporting administrative record, that post-construction operational impacts of the SAIP do not require further analysis. These exceptions are: drainage and storm water quality (due to a more detailed level of planning than was available for the LAX Master Plan EIR), and health risks (due to additional baseline information). In all other categories, the effects of the SAIP are analyzed in the LAX Master Plan EIR, therefore the SAIP Draft EIR need not include further discussion or analysis in those areas.

2.3 TR-SAIP-PD-3 - Airport Capacity and Operations as Related to the SAIP

As discussed in Topical Response TR-SAIP-PD-2 regarding the relationship of the tiered SAIP EIR to the LAX Master Plan EIR, with two exceptions, all post-construction operational impacts of the SAIP were fully analyzed in the LAX Master Plan EIR. Pursuant to CEQA's tiering process, the SAIP EIR need not reevaluate the post-construction operational impacts of the SAIP that were previously adequately analyzed in the LAX Master Plan EIR, but need only evaluate the direct impacts of construction of the SAIP, the indirect impacts of temporary changes in airport operations due to construction of the SAIP, and the impacts of operation of the airport with the SAIP implemented in the limited impact areas that were not already fully analyzed in the LAX Master Plan EIR.

Further demonstrating that the SAIP EIR need not analyze post-construction impacts of operations at LAX is the fact that the SAIP will not alter airspace traffic, runway operational characteristics, or the practical capacity of LAX. In other words, in nearly all respects, post-construction operations at LAX will not be affected by the SAIP. On-going operations at LAX are discussed and analyzed extensively in the LAX Master Plan EIR. That analysis need not be repeated in a tiered EIR.

Specifically, the LAX Master Plan forecasted activity levels for the Master Plan alternatives, including a No Project scenario and the environmentally preferred Alternative D, which was ultimately selected for approval. (LAX Master Plan, Appendix D, p. D-3 and Appendix E.) The Master Plan's analysis determined that under a No Project scenario, the airport would have the ability to accommodate approximately 71.2 million annual passengers (MAP) and 779,500 annual operations in 2005. (Id.) That analysis further concluded that, under Alternative D, the airport would temporarily experience a relatively reduced capacity, accommodating less than one percent fewer passengers (70.8 MAP) and 4.4 percent fewer annual operations (745,000) annual operations, compared with the No Project scenario, in the SAIP's then-projected peak construction year of 2005. (Id.) The reason for this temporary reduction in capacity was that Runway 7R-25L would be closed in the peak construction year for the SAIP, which would leave only three available runways.

The SAIP EIR uses a straight-line interpolation to project that, under a No Project scenario (i.e., without the SAIP), the airport would accommodate 71.9 MAP and 780,000 annual operations in 2006. The SAIP EIR then applies the same reduction factors (i.e., a reduction factor of less than 1 percent in annual passengers and 4.4 percent in annual operations) to determine that the constraints

associated with operating a three-runway airfield during SAIP construction would reduce airfield capacity during a 2006 peak SAIP construction year to 71.4 MAP and 745,500 annual operations. (SAIP EIR, Appendix D, pp. D-3 – D-4.) The 4.4 percent adjustment represents the difference between the 2005 "No Project" scenario and the 2005 Alternative D scenario operations levels as presented in the LAX Master Plan Final EIR and used for the analyses in that document. This slight increase in passengers and operations is expected to occur regardless of the SAIP.

The SAIP EIR also explains that once construction is completed, operation of the SAIP will not affect future capacity of, or operations levels at, LAX. The LAX Master Plan analyzed the overall capacity constraints at LAX in great detail. Currently, the practical capacity of the airport is primarily limited by the curbside capacity of the Central Terminal Area (CTA) at peak hour, which causes the practical capacity to be approximately 78.7 MAP. Under the Master Plan, the practical capacity of the airport in 2015 will be approximately the same. Based on expert analysis, LAWA identified the effective infrastructure constraints on activity levels under the Master Plan as the four-runway system, limited gate space (terminal frontage available to park aircraft side by side), and limited on-airport cargo warehousing space. At build-out of the LAX Master Plan, the primary constraint on practical capacity would be the limited number of aircraft gates. Under the Master Plan, the maximum level of passenger and cargo activity that the airport could reasonably accommodate without unreasonable delay was determined to be 78.9 MAP and 3.12 MAT (million annual tons of cargo). The Master Plan was designed to increase efficiency and enhance safety, while still maintaining the existing practical capacity of the airport.

As part of the planned Master Plan improvements, the SAIP will serve the goal of enhanced safety, while still maintaining the existing practical capacity of the airport. LAWA's experts determined that the SAIP will not alter the practical capacity of the airport because the SAIP improvements will not change the primary constraints on the practical capacity of the airport, that is, the current constraint of the limited CTA curbside capacity and the LAX Master Plan constraint of reducing the number of aircraft gates.

The SAIP also will not alter airspace traffic or runway operational characteristics. An expert analysis prepared by HNTB for LAWA, dated January 2005, concluded that the SAIP will not result in any change to runway utilization or operations. (Draft EIR, Appendix C, Interim Operational Plan Analysis Exiting and Future Runway Operations.) Specifically, the expert analysis determined that the improvements to the south airfield runways will not impact the existing operational procedures nor impact the existing balance of operations between the north and south runway complexes at LAX during in the five year interim period following completion of the SAIP and before improvements to the north runway complex.

In sum, although the SAIP will perform its purpose of enhancing the safety of runways at LAX, it is not designed to, and will not, increase the capacity of the airport to accommodate operations levels higher than those identified and evaluated in the LAX Master Plan EIR for the Master Plan's "horizon year" of 2015. Nor will the SAIP have an appreciable effect on airspace traffic or runway operational characteristics, compared with those identified and evaluated in the LAX Master Plan EIR for the year 2015. Nevertheless, during construction of the SAIP, the airport's capacity to accommodate operations will be temporarily depressed due to the closure of Runway 7R-25L, which will result in peak construction-year operations at a temporarily reduced level, compared with 2005 levels forecast in the LAX Master Plan under a "No Project" scenario, and will also result in temporary changes to airspace traffic and runway operational characteristics. Since the program-

level LAX Master Plan EIR has (except in the limited areas of drainage and storm water pollutant loads) already fully evaluated impacts of the character and level of operations under the Master Plan (including the SAIP) in 2015, the SAIP project-level EIR appropriately completes the required environmental analysis of the SAIP, by focusing on the impacts of construction, and temporary changes in operations due to construction, of the SAIP. (See Topical Response TR-SAIP-PD-2, regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.)

2.4 TR-SAIP-ALT-1 - Analysis of Alternatives

As noted in a number of comments, the SAIP Draft EIR does not contain a new analysis of alternatives, but rather relies on the alternatives analysis in the LAX Master Plan Final EIR. Accordingly, Section 2.2 of the SAIP Draft EIR briefly describes that alternatives analysis as it pertains to airfield design.

The SAIP Draft EIR also contains discussion of studies of other potential methods for achieving the goals of the SAIP. (Sections 2.3.3, 2.3.4; see also Appendix B.) These are the End-Around Taxiway Studies and the Interim Operational Plan Analysis. Both of these were prepared in response to comments by the City of El Segundo during the LAX Master Plan process. Fifteen different runway configurations were examined in the LAX Master Plan. (See Figure 2.0-1 (page 2-3) of the LAX Master Plan). These studies demonstrate that as part of that process, LAWA evaluated various means of achieving the safety improvements sought by the SAIP. In approving the LAX Master Plan, which included a detailed proposal for the SAIP (as evaluated in this SAIP EIR), the City concluded that the most feasible and desirable way to achieve the necessary safety improvements and reduction of incursions and incursion risk in the south airfield was to implement the SAIP as now proposed and evaluated in the SAIP Draft EIR. In other words, the analysis of potential alternatives to the SAIP occurred in the LAX Master Plan process and is described in detail in the LAX Master Plan EIR.

In addition to the studies described above, the LAX Master Plan EIR analyzed a reasonable range of alternatives to the overall LAX Master Plan, in accordance with CEQA's requirements. (LAX Master Plan Final EIR at Ch. 3.) The SAIP EIR, as an EIR for a tiered project, need not reevaluate the alternatives to the LAX Master Plan evaluated in the LAX Master Plan Final EIR nor evaluate an entirely new set of alternatives to the SAIP.

As explained in Topical Response TR-SAIP-PD-1, the SAIP and its purpose and need were fully defined in the LAX Master Plan process. Once the LAX Master Plan was adopted, therefore, the decision as to feasible alternatives to the SAIP had been made as well. Under the tiering concept, CEQA does not require that decision to be revisited or reanalyzed. Specifically, CEQA Guideline 15168(c)(3) provides that a lead agency should incorporate feasible alternatives developed in the program EIR into subsequent actions in the program. In other words, the lead agency need not reinvent, nor reanalyze, the reasonable range of alternatives analyzed in the program EIR in preparing the tiered project EIR because the plan or program evaluated in the program EIR is where the subsequent project is determined. Put another way, as was the case here, alternatives to the plan or program typically also involve alternatives to the subsequent project. The program EIR's alternatives analysis, therefore, is also an analysis of potential alternatives to the subsequent project. Once the plan or program is adopted by the decision-maker, however, the subsequent projects have also been selected, and further analysis of alternatives is not necessary. Conversely, an alternative to the subsequent project that had not been considered in the plan or program more than likely would be

inconsistent with the plan or program. An alternative that is inconsistent with the plan or program is, by definition, infeasible. See CEQA Guideline 15126.4.

This logic is consistent with the many principles governing the program EIR/tiered EIR concept in CEQA. For example, one purpose of this concept is to allow consideration of, and decisions regarding, broad planning options and related environmental issues, at an early stage of a large planning process. (*Rio Vista Farm Bureau Center v. County of Solano*, 5 Cal.App.4th 351 (1992).) Reconsidering alternatives to each project within the plan, when those alternatives have already been considered and decided upon at a more global level during the plan preparation and environmental review processes, would be contrary to this principle.

Another purpose of the tiering concept in CEQA is to avoid duplicative consideration or analysis of basic policy decisions. CEQA Guideline 15168(b)(4). Reevaluating project alternatives after high level policy decisions regarding a plan and its component parts have been made during the plan preparation and adoption process, would be contrary to this principle as well.

Likewise, an EIR is not required to evaluate alternatives to a component of a project. (*Big Rock Mesas Property Owners Ass'n v. Board of Supervisors*, 73 Cal.App.3d 218, 227 (1977).) The SAIP is a component of the overall LAX Master Plan Program. Thus, the SAIP EIR need not reevaluate alternatives to either the overall program, i.e., the LAX Master Plan, or to the project component at hand, i.e., the SAIP.

In summary, the SAIP Draft EIR need not contain an alternatives analysis. Rather, as a tiered EIR, it may rely on the alternatives analysis of the program-level EIR, which here is the LAX Master Plan EIR. The LAX Master Plan EIR contained a full CEQA-compliant alternatives analysis. Moreover, it included planning studies and analysis of potential variations on the SAIP. Thus, alternatives to the SAIP have been adequately analyzed under CEQA.

2.5 TR- SAIP-GEN-1 - Environmental Baselines

CEQA Guideline 15125(a) provides that the environmental setting at the time of publication of the NOP will "normally" constitute the baseline physical condition against which an agency compares the potential impacts of a project to determine whether the impacts are significant. However, a lead agency is not inflexibly required to use conditions at the time of NOP publication as the baseline for analysis in all impact areas. CEQA is clear that the lead agency has broad discretion to compare the project's impacts to a different baseline, where substantial evidence supports the agency's decision that doing so will accurately disclose and evaluate the significance of environmental impacts. (*Save Our Peninsula Comm. v. Monterey County Bd. Of Supervisors*, 87 Cal.App.4th 99, 126 (2001); *Fat v. County of Sacramento*, 97 Cal.App.4th 1270, 1277 (2002).)

In most impact categories, the post-construction operations-related impacts of the SAIP (i.e., the direct effect of changes in airport-related operations due to the SAIP that occur after construction of the SAIP is complete) were fully evaluated in the LAX Master Plan EIR, which compared those impacts to the environmental baseline conditions in existence at the time of publication of the Notice of Publication for the LAX Master Plan project (1996), as supplemented by disclosure of changes to background environmental conditions that were observed during development and evaluation of the Master Plan project. See TR-SAIP-PD-2 regarding the relationship of the SAIP EIR to the LAX Master Plan EIR.

Pursuant to CEQA Guideline 15125(a), the SAIP Draft EIR generally employs an environmental baseline that consists of conditions as they existed in August 2004, when the Notice of Preparation ("NOP") of the SAIP EIR was published. Specifically, where the evidence demonstrates that environmental baseline conditions have materially changed between preparation of the LAX Master Plan EIR and August 2004, the Draft EIR compares project impacts to an updated August 2004 baseline. When a year's worth of data is needed to provide an accurate and complete description of baseline conditions at the time of publication of the NOP, the EIR uses data from calendar year 2003, the last full year before August 2004.

There are two exceptions to the Draft EIR's use of an environmental baseline consisting of conditions at the time of NOP publication: first, because the Draft EIR is "tiered" from the program EIR for the LAX Master Plan, where environmental baseline conditions in August 2004 were materially identical to those described in LAX Master Plan EIR, the SAIP Draft EIR incorporates the LAX Master Plan EIR's description of baseline conditions. Therefore, as discussed in greater specificity below, in the areas of water quality (storm water pollutant loads) and biotic communities, the SAIP Draft EIR uses the environmental background information from the LAX Master Plan EIR.

Second, as also described in greater detail below, in areas where changes to airport operations due to construction of the SAIP have no potential to indirectly cause significant impacts, such as off-airport surface transportation and construction traffic noise, the Draft EIR compares the direct impacts of SAIP construction to an "adjusted" baseline that includes all changes to baseline conditions anticipated to occur in the SAIP's peak construction year that are not directly due to SAIP construction.

Baseline for Hydrology/Water Quality Impacts

The SAIP Draft EIR's analysis of hydrology and water quality impacts, like its analysis of other impact areas, is "tiered" from the analysis presented in the program EIR for the LAX Master Plan. The LAX Master Plan evaluated the hydrology/water quality impacts of all Master Plan alternatives related to groundwater recharge and dry weather flows; therefore, these issues are not reevaluated in the SAIP Draft EIR. (See discussion in Section 4.1 (subsection 4.1.1) of the SAIP Draft EIR; see also evaluation of hydrology and water quality impacts in Section 4.7, and Technical Reports 6 and S-5, of the LAX Master Plan Final EIR.) Because a detailed design of the future drainage system under the Master Plan had not been undertaken at the time of preparation of the LAX Master Plan Final EIR, the LAX Master Plan Final EIR evaluated impacts in the areas of drainage (flooding) and pollutant loads in storm water flows at a general, "programmatic" level of detail, and concluded that increases in impervious surfaces under the Master Plan would result in increased storm water runoff and increased pollutant loads in that runoff. The Master Plan EIR concluded that flooding and water quality impacts due to these increases would nevertheless be less than significant, through application of a Conceptual Drainage Plan (CDP) to LAX Master Plan projects, under Master Plan

Commitment HWQ-1.⁵ Consistent with Commitment HWQ-1, LAWA prepared a CDP, dated June 2005, which is a study of drainage design/water quality management concepts that are intended to be further developed in the context of future implementation of individual LAX Master Plan projects (including the SAIP) prior to final approval of drainage/water quality improvements for those projects. (CDP, page ES-4; the CDP is included, for informational purposes, as Appendix A to the Draft EIR.) Based upon now-available project-level design information about increases to impervious surfaces and improvements to on-airport drainage facilities under the SAIP, the SAIP Draft EIR focuses on project-specific hydrology/water quality impacts of construction and operation of the SAIP, namely the potential for impacts in the areas of drainage (flooding) and water quality that may result from storm water runoff associated with construction and operation of the SAIP.

Hydrology

The SAIP Draft EIR's evaluation of potential flooding impacts under the SAIP describes baseline (existing) conditions affecting the potential for flooding using information and data about on-airport impervious surfaces and drainage facilities contained in the Final On-Site Hydrology Report for Los Angeles International Airport (PBQ&D, 2002) and the Conceptual Drainage Plan prepared by LAWA in June 2005. Using the same methodology employed in the LAX Master Plan EIR (as described in Technical Report 6 and Technical Report S-5 of the LAX Master Plan EIR), the SAIP Draft EIR evaluates hydrology impacts in the area of drainage (flooding) by determining whether implementation of the SAIP (including proposed increases to impervious surfaces and also proposed improvements to existing on-airport drainage facilities) would cause or exacerbate flooding with potential to harm people or property in a 25-year "design storm" (i.e., a rainfall event so heavy as to occur, on average, once in a 25-year period). Because on-airport drainage infrastructure facilities, as proposed to be improved under the SAIP, are determined to have adequate capacity to accommodate runoff from on-airport impervious surfaces, as increased under the SAIP, without any flooding of sufficient duration or extent to harm people or property in a 25-year storm event, the SAIP Draft EIR concludes that the SAIP will not cause a significant drainage impact.

Water Quality

In analyzing water quality impacts in the area of storm water runoff pollutant loads, the SAIP Draft EIR presents baseline runoff flow and pollutant loads, newly calculated to represent 2003 conditions, based upon project-specific construction design engineering data for the SAIP. Baseline water quality conditions were analyzed using the same methodology and the same parameters as used for the LAX Master Plan Final EIR, including historical (i.e., 1994 to 2000) storm water data within the County of Los Angeles and data previously developed by the American Association of Airport Executives (AAAE). (See Table 4.1-1, page IV-21 of the SAIP Draft EIR; see also discussion in

⁵ The LAX Master Plan EIR identified several potential means by which peak flows of surface water runoff under the Master Plan could be reduced, and additionally concluded that significant adverse flooding and water pollution impacts could be mitigated through application of Master Plan Commitment HWQ-1, which required LAWA to prepare (in accordance with FAA guidance and to the satisfaction of the City of Los Angeles Department of Public Works, Bureau of Engineering) a Conceptual Drainage Plan (CDP) to "provide the basis and specifications by which detailed drainage improvement plans will be designed in conjunction with site engineering specific to each Master Plan project." (Master Plan FEIR, page 4-766, describing Master Plan Commitment HWQ-1.) The Master Plan EIR also specified that Best Management Practices (BMPs) would be incorporated into the CDP to minimize the effect of airport operations on surface water resulting from the Master Plan. (Id.) Additionally, the Master Plan EIR stated that under Master Plan Commitment HWQ-1, LAWA would prepare project-specific Standard Urban Stormwater Mitigation Plans (SUSMPs) for individual projects under the Master Plan, with the objective of reducing the discharge of pollutants from the storm water conveyance system to the maximum extent practicable. (Second Addendum to the LAX Master Plan Final EIR, Appendix AD(2)-B, page 10.)

LAX Master Plan Final EIR, Sections 4.7.2 and 4.7.3, and also Technical Reports 6 and S-5 of the LAX Master Plan EIR.) As explained in Section 4.7 (page 4-753) of the LAX Master Plan Final EIR, and also in Topical Response TR-HWQ-1 to comments on the LAX Master Plan Final EIR, the storm water pollutant load modeling methodology used by LAWA accounts for drainage area, average annual rainfall, runoff factors based on the percent imperviousness area, and land use-based "Event Mean Concentration" (EMC) data concerning storm water concentration of pollutants of concern. However, the storm water pollutant load modeling methodology does not account for changes in the intensity (as opposed to the type) of land use, as there is no recognized methodology for incorporating such data about such changes into an assessment of storm water pollutant load impacts. (See Section 4.7 (page 4-753) of the LAX Master Plan Final EIR, and also Topical Response TR-HWQ-1 to comments on the LAX Master Plan Final EIR.) Therefore, and because changes to the intensity of airport operations since preparation of the LAX Master Plan EIR cannot be factored into the available methodology for evaluating storm water pollutant load impacts, it was determined to be appropriate to perform the SAIP Draft EIR's evaluation of storm water pollutant load impacts by comparing changes in land use areas (i.e., acreage of open space versus acreage of airport operations) under the SAIP with 2003 baseline conditions. (See EIR section 4.1.3.) Due to the fully built-out nature of the SAIP project site, it was determined that there was no material change to relevant infrastructure at the project site between preparation of the LAX Master Plan Final EIR and publication of the NOP for the SAIP EIR. Therefore, baseline information pertaining to the on-airport drainage system relies upon 1996 baseline data described in Technical Report 6 (as supplemented by Technical Report S-5) and Section 4.7 of the LAX Master Plan Final EIR, as does baseline information pertaining to regional conditions.

Baseline for Off-Airport Surface Transportation and Construction Traffic Noise Impacts

The potential impacts of SAIP construction in two categories (off-airport surface transportation and construction traffic noise) would occur against an exceptionally fluid, constantly evolving environmental background, i.e., off-airport surface traffic conditions in the vicinity of LAX. Therefore, the SAIP Draft EIR compares project impacts in those impact areas to an "adjusted" environmental baseline, to determine whether those impacts are potentially significant. The adjusted baseline methodology uses traffic data collected in August 2004, and adds to those data the additional traffic volumes that are anticipated to occur due to growth in traffic from airport-related sources (airline passengers, employees, cargo), other known airport projects, and non-airport projects and activities during the SAIP's peak construction year, to develop a composite, or "adjusted," environmental background. Such an adjusted background allows the SAIP EIR to accurately compare the direct impacts of SAIP construction in the areas of off-airport surface transportation and construction traffic noise with a realistic picture of the non-project-related environmental background that will exist at the time those impacts would occur.

As explained in the SAIP Draft EIR, the use of an "adjusted baseline" methodology to determine potential transportation-related impacts is consistent with the methodology used in the LAX Master Plan EIR traffic study (LAX Master Plan Final EIR, Chapter 4.3.2, Section 4.3.2.3, pg. 4-423), and with the requirements set forth in the Draft L.A. CEQA Thresholds Guide (May 1998).⁶ This is an appropriate approach where an agency determines, based on substantial evidence, that conditions at the time environmental review commences will either improve or degrade by the time the project is

⁶ The referenced Draft CEQA Guide is the latest available version of the document and was used as directed by the Los Angeles Department of Transportation.

implemented, the agency may take the changing environment into account in setting the baseline for its impact analysis. (See *Napa Citizens for Honest Gov't v. Napa County Bd. Of Supervisors*, 97 Cal.App.4th 342, 363 (2001).) Los Angeles County also requires an adjusted baseline approach in its CEQA guidance. This methodology is explained in detail in the LAX Master Plan EIR at pages 4-7 through 4-8. See also SAIP Draft EIR at Section 4.2.2.3.

The purpose of an EIR is to isolate and disclose information about the potential impacts of the proposed project. Here, the proposed project, construction of the SAIP, will not start until 2006. The NOP was published in August 2004. Between that date and the commencement of construction, it is anticipated that growth in background traffic in the project vicinity will occur. None of this foreseeable additional background traffic, however, is attributable, either directly or indirectly, to the project. Thus, using the conditions at the time the NOP is published as the comparison point for determining project impacts might inaccurately overstate project impacts by effectively treating background traffic growth during the EIR preparation period as project-induced.

Accordingly, foreseeable traffic levels at the time the SAIP is under construction are the most appropriate conditions against which to measure potential project impacts. The adjusted baseline represents those traffic levels by taking existing traffic counts and adjusting them to account for the background traffic growth occurring until that time using aggregate growth factors. Those factors are derived from historical and current traffic counts and anticipated off-site projects, as further explained in Section 4.2.3.3.4 of the Draft EIR. The aggregate growth factors for each intersection in the study are shown in Table 4.2-4. The off-site projects considered are listed in Table 4.2-7.

To ensure the fullest disclosure of information, Table 4.2-13 of the SAIP Draft EIR contains data and comparisons of intersection levels of service for both the non-adjusted baseline condition and the adjusted baseline condition. (See also SAIP Draft EIR at Section 4.2.2.2, Tables 4.2-6, 4.2-10.) Thus, all information is provided for both non-adjusted baseline and adjusted baseline scenarios so that an interested party may examine it and understand the specific effects of using the adjusted baseline on an intersection-by-intersection basis, and the impacts of the SAIP had the adjusted baseline methodology not been used.

The adjusted baseline methodology is appropriate only for evaluation of the off-site surface transportation / construction traffic noise impacts evaluated in the Draft EIR, which would occur against an environmental background in which all other changes would occur irrespective of the proposed project and the airport. If, on the other hand, changes in airport operations due to construction of the SAIP had the potential to cause significant on-airport surface transportation or construction traffic noise impacts indirectly related to SAIP construction, it would be more appropriate to compare those impacts to a "normal" baseline consisting of conditions at the time of NOP publication. In that circumstance, it would be incorrect to assume that on-airport impacts not directly due to construction would occur regardless of the SAIP, and on that basis to incorporate them into an "adjusted" baseline for comparison with the project's direct impacts. This issue is largely academic, however, as the SAIP is not anticipated to have the potential for significant on-airport traffic impacts, and therefore the SAIP Draft EIR is not required to evaluate them for significance. (See further discussion of this point in SAIP Draft EIR Section 4.2.2.3.)

Baseline for Air Quality Impacts

The SAIP Draft EIR's air quality analysis compares the temporary peak-construction-year emissions from construction sources (e.g., onsite and offsite construction equipment, fugitive dust), and also

peak-construction-year emissions from airport sources (e.g., aircraft, ground support equipment, stationary sources, ground access vehicles), to environmental baseline conditions developed using data of airport operations collected during calendar year 2003. (See SAIP Draft EIR Section 4.3.3.) The SAIP Draft EIR thus compares the SAIP's construction-related air quality impacts to a "normal" baseline consisting of environmental conditions at the time of NOP publication, rather than the "adjusted" baseline that the SAIP Draft EIR uses for evaluation of surface transportation/traffic noise impacts. Because the air quality impacts of changes to airport operations due to construction of the SAIP are considered part of the overall air quality impacts of SAIP construction-related activities (unlike the situation with surface transportation impacts, as discussed above), it is not appropriate or accurate to compare the SAIP's construction-related air quality impacts to an "adjusted" baseline that includes environmental changes not directly caused by SAIP construction and anticipated to occur in the peak year of SAIP construction.

Baseline for Human Health Risk Impacts

The LAX Master Plan EIR examined the potential incremental health risks due to inhalation of toxic air contaminants (TACs) from operational sources associated with the Master Plan alternatives, by comparing emissions associated with those alternatives to 1996 environmental baseline emissions, and evaluating the impacts to health risks associated with the incremental increase in emissions.⁷ Because certain project-level details were not available at that time regarding SAIP construction activities, however, the program-level LAX Master Plan EIR did not address potential health risk impacts associated with construction activities of the Master Plan components, including the SAIP, nor did it consider specific impacts associated with changes in operations during construction of those components. In addition, the interim year for Alternative D (later adopted as the LAX Master Plan) evaluated in the LAX Master Plan EIR was 2013, as this was the year of peak, combined construction and operational impacts. The SAIP is planned to be constructed in 2005/2006, years not evaluated in the LAX Master Plan EIR for Alternative D. The SAIP Draft EIR, as a tiered document, evaluates those potential impacts not evaluated in the LAX Master Plan EIR. Because the SAIP Draft EIR attributes to the project the human health risk impacts indirectly caused by changes in airport operations due to construction of the SAIP (as is the case with air quality impacts, discussed above) it would be inaccurate to compare human health risk impacts to an "adjusted" environmental background that, like that used for evaluation of off-airport surface transportation and construction traffic noise impacts, includes environmental changes not directly caused by SAIP construction and anticipated to occur in the peak year of SAIP construction. Instead, the SAIP Draft EIR evaluates these potential impacts using environmental baseline information collected during 2003, the final full calendar year prior to the publication of the NOP for the SAIP EIR. Use of 2003 baseline data, rather than the 1996 baseline data used in the LAX Master Plan EIR, provides a conservative (i.e., likely to be overstated) evaluation of human health risks, since total aircraft operations at the airport in 2003 were substantially lower than those in 1996, due to the events of September 11, 2001, and the subsequent economic slowdown. Therefore, even though the SAIP would result in a reduced number of operations in the peak construction year due to the closure of Runway 7R-25L, the incremental change over the baseline condition used for the SAIP analysis is greater than the change analyzed in the LAX Master Plan Final EIR. For this reason, as well as other reasons unrelated to the baseline (in particular, differences in horizon years analyzed for human health risk impacts) SAIP human health risks identified in the SAIP Draft EIR are greater than previously reported for the LAX Master Plan. Nevertheless, because LAWA in compliance with CEQA selected environmental baselines

⁷ The Master Plan EIR used the term "toxic air pollutants" or "TAPs." In the SAIP Draft EIR, the term "toxic air contaminants" or "TACs" is used to reflect California regulatory terminology.

with an eye toward disclosing and evaluating all impacts even arguably attributable, directly or indirectly, to SAIP construction-related activities, LAWA employed "conservative" 2003 environmental baseline conditions in its analysis of human health risk impacts.

Baseline for Noise Impacts (Except Construction Traffic Noise Impacts)

The SAIP Draft EIR evaluates the potentially noise-creating activities associated with construction of the project, including demolition, the use of construction equipment, construction-related off-airport traffic, and changes in aircraft activity due to temporary shifts in runway use patterns to accommodate closure of Runway 7R-25L during demolition and construction. As discussed in the subsection of this topical response regarding the baseline for evaluation of off-airport surface transportation and construction traffic noise impacts, construction-related off-airport surface traffic noise is evaluated using the adjusted environmental baseline that includes activities not directly due to SAIP construction that are anticipated to occur in the SAIP's peak construction year. However, because the SAIP Draft EIR attributes to the project other noise impacts indirectly caused by changes in airport operations due to construction, the SAIP Draft EIR evaluates all other construction-related noise impacts of the SAIP by comparison with 2003 noise conditions. For the noise impacts of SAIP construction equipment, the SAIP Draft EIR uses 2003 baseline ambient (non-construction) noise data for potentially affected areas south of the airport. For the noise impacts of temporary shifts in runway use patterns by aircraft due to SAIP construction, the SAIP Draft EIR uses an environmental baseline derived from a 2003 baseline noise analysis prepared using the same methodology used to prepare the 1996 baseline and 2000 existing conditions noise exposure analysis in the LAX Master Plan Final EIR.

Baseline for Biotic Communities Impacts

The SAIP Draft EIR's analysis of impacts to biotic communities, similarly to its analysis of hydrology/water quality impacts, is based on comparison with an environmental baseline that is described using information from Section 4.10 of the LAX Master Plan Final EIR, which is incorporated by reference into the SAIP Draft EIR. Use of the environmental baseline from the LAX Master Plan Final EIR is appropriate, as analysis of data from surveys conducted in 2003 and early 2005 confirm that the highly disturbed biotic community conditions in the SAIP area have not changed materially since 1996.

Baseline for Impacts In Other Impact Categories

For evaluation of the potential additional impacts not addressed in the LAX Master Plan Final EIR and Addenda to the Final EIR in thirteen other impact areas (Chapter 5 of the SAIP Draft EIR)⁸, the SAIP Draft EIR employs and incorporates by reference the environmental baseline descriptions in the LAX Master Plan Final EIR, as baseline conditions for discussion and disclosure of the level of significance of the potential impacts of the SAIP.

2.6 TR-SAIP-GEN-2 - Consideration of Cumulative Impacts

Under CEQA, a "cumulative impact" is the change in the environment that results from the incremental effect of the project under consideration when added to the effects of other closely related projects. CEQA requires that an EIR evaluate cumulative impacts if the incremental effect of

⁸ Land Use; Population, Housing, Employment and Growth-Inducement; Cultural Resources; Endangered and Threatened Species of Flora and Fauna; Wetlands; Energy Supply and Natural Resources; Solid Waste; Aesthetics; Earth and Geology; Hazards and Hazardous Materials; Public Utilities; Public Services; and Schools.

the project under consideration is "cumulatively considerable" when combined with the effects of other closely related projects. CEQA Guidelines 15130(a) and (b). The purpose of a cumulative impacts analysis is to avoid considering a project's effects in a vacuum, which is particularly important when other related projects might significantly worsen the project's adverse environmental impacts. An EIR may conclude that a cumulative impact is significant, even though the project-specific impacts in the same area are not significant, if the cumulative impact of all related projects would exceed the EIR's standards of significance in that area. This may occur even though the project's contribution to the overall problem is relatively small. CEQA Guideline 15130(a)(3).

The Final EIR for the LAX Master Plan evaluated the contribution of operation of all Master Plan components, including the SAIP, to cumulative impacts in a full range of impact areas. In the Notice of Preparation (NOP) for the project-level SAIP EIR, which is "tiered" from the LAX Master Plan EIR, LAWA determined that activities related to construction of the SAIP had the potential to result in impacts, not fully evaluated in the Master Plan Final EIR, in four impact categories (hydrology/water quality, surface transportation, air quality and noise). Subsequent analysis identified human health risks and biotic communities as two additional areas requiring evaluation of impacts related to construction of the SAIP. Accordingly, the SAIP Draft EIR evaluates the potential for the SAIP to contribute to significant cumulative impacts not previously evaluated for these six categories. All other impact categories were determined to have been adequately analyzed for the SAIP in the LAX Master Plan EIR, thus no additional analysis — project-level or cumulative — was required in those categories.

The SAIP Draft EIR's cumulative impacts analysis evaluates the incremental contribution of the SAIP to cumulative impacts in the areas discussed above along with the contribution of other related projects, both on- and off-airport.⁹ On-airport projects accounted for in the SAIP Draft EIR's cumulative impacts analysis include the non-Master Plan projects identified in subsection 3.5.2 of the Draft EIR: the Tom Bradley International Terminal [TBIT] Improvements and Baggage Screening Facilities, the Terminals 1-8 In-Line Baggage System, the Remote Boarding Facilities Modifications project, and the Airfield Intersections Improvement project.¹⁰ (See SAIP Draft EIR, Sections 4.1.7

⁹ The LAX Master Plan EIR fully evaluated the cumulative impacts of operation of the airport with the SAIP completed, in combination with operation of other Master Plan component projects, and evaluated the cumulative impacts of construction of the SAIP in combination with construction of the other Master Plan component projects at a general level of detail. It is not possible to include further project-level detail concerning construction of those other LAX Master Plan projects in the SAIP Draft EIR's cumulative impacts analysis, as detailed construction plans for those other Master Plan component projects have not yet been developed. Further project-level analysis of those other LAX Master Plan component projects will be conducted as necessary once the projects are planned in sufficient detail to permit such analysis. (See Section 3.5.1 of the SAIP Draft EIR.)

¹⁰ These non-Master Plan projects are accounted for in the SAIP Draft EIR's cumulative impact analysis where activities related to their construction that were not evaluated in the cumulative impacts analysis in the LAX Master Plan Final EIR might contribute, along the impacts of the SAIP evaluated in the Draft EIR, to potentially significant cumulative impacts. A firm schedule for construction of these non-Master Plan projects has not been determined in all cases. However the TBIT Improvements and Baggage Screening Facilities project is currently anticipated to be under construction between July and December 2006; the Terminals 1-8 In-Line Baggage System project is currently anticipated to be under construction between May and November 2006; the Remote Boarding Facilities Modifications project is currently anticipated to be under construction between February 2006 and February 2007. Phase I of the Airfields Intersections Improvement project is currently under construction and anticipated to be complete in December 2005, while Phase II of that project is currently anticipated to be under construction between January and August 2007. Therefore, it is likely that construction of one or more of these projects will overlap with the 2006 peak construction year for the SAIP.)

(Cumulative Hydrology/Water Quality Impacts); 4.2.7 (Cumulative Surface Transportation Impacts); 4.3.7 (Cumulative Air Quality Impacts); 4.4.7 (Cumulative Human Health Risk Impacts); 4.5.7 (Cumulative Noise Impacts); and 4.6.7 (Cumulative Biotic Communities Impacts).) This approach is consistent with CEQA Guideline 15355(b), which requires that an EIR evaluate the cumulative environmental change resulting from "the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects."

The SAIP Draft EIR also examines the contribution of the SAIP to cumulative impacts along with other related off-airport projects. The body of related off-airport projects in the SAIP Draft EIR's cumulative impacts analysis varies slightly, depending on which off-airport projects might contribute along with the SAIP to cumulative impacts in a given area, as discussed in the following sections of this response concerning the SAIP Draft EIR's cumulative impacts analysis in each area.

Cumulative Hydrology/Water Quality Impacts

The potential for the SAIP to contribute, in combination with other on-airport projects planned under the LAX Master Plan, to significant hydrology/water quality impacts was examined in the LAX Master Plan Final EIR, and was determined to be mitigated to a less than significant level by a requirement that all Master Plan projects be designed in conformance with a Conceptual Drainage Plan (CDP) including recommended Best Management Practices (BMPs) to control water quality impacts. (LAX Master Plan Final EIR, page 4-787.)¹¹

The SAIP Draft EIR, which is tiered from the analysis in the LAX Master Plan Final EIR, examines the incremental contribution of the SAIP to cumulative hydrology/water quality impacts, in combination with related planned on-airport non-Master Plan projects. The Draft EIR concludes that the SAIP will not contribute to a significant cumulative hydrology or water quality impact in combination with other planned on-airport non-Master Plan projects, since none of those other projects is expected to increase impervious surfaces sufficiently to result in changes to drainage or storm water pollution loads. (See Tom Bradley International Terminal (TBIT) Improvements and Baggage Screening Facilities Project Final Mitigated Negative Determination, Section 3, Pg. B-22.) For example, renovations to the TBIT will involve only minimal modifications to the exterior of an existing structure; the Terminals 1-8 In-Line Baggage System will involve construction of a new building located on existing impervious surfaces, and therefore will not increase existing impervious surfaces; and the airfield intersection improvements project and the Remote Boarding Facilities Modifications project will both involve only minor modifications to existing airport facilities. (See TBIT Improvements and Baggage Screening Facilities Project Final Mitigated Negative Determination, Section 3, Pg. B-24.)

The SAIP Draft EIR also examines the incremental contribution of the SAIP to cumulative hydrology impacts, in combination with related planned off-airport projects because hydrological impacts caused by on-airport construction may occur off-airport. The Draft EIR concludes that the SAIP (although it would increase impervious surfaces above existing levels) would not contribute, along with planned off-airport projects located within the Santa Monica Bay watershed, to a significant cumulative hydrology (flooding) impact within that watershed, due to the more-than-adequate capacity of existing drainage infrastructure in that watershed to accommodate anticipated

¹¹ Subsequent to approval of the Master Plan, LAWA prepared the CDP to which it committed in Master Plan Commitment HWQ-1. The CDP, dated June 2005, is included for informational purposes as Appendix A to the SAIP Draft EIR.

runoff in a 25-year storm event, and also due to the considerable distance of related development projects from the SAIP project site. On the other hand, the SAIP Draft EIR concludes that the SAIP could contribute to a potentially significant cumulative hydrology (flooding) impact within the Dominguez Channel watershed in combination with planned off-airport projects in that watershed. The basis for this conclusion is that, although the SAIP is designed to accommodate runoff from a 25-year storm event on airport property, on-airport drainage facilities under the SAIP would feed into existing off-airport drainage infrastructure that may not be adequate to accommodate runoff from such a major storm event. This impact could be mitigated to a less-than-significant level by a capacity upgrade to Dominguez Channel drainage infrastructure undertaken by the agencies with jurisdiction over that infrastructure. However, that infrastructure is not under the jurisdiction of LAWA (but rather is under the jurisdiction of the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works), thus LAWA cannot guarantee that mitigation consisting of improvements to the Dominguez Channel structures could be implemented. Accordingly, it must conclude that, if improvements are not made to the Dominguez Channel, the potentially significant cumulative hydrology impact would be significant and unavoidable.

The capacity limitation in the Dominguez Channel noted in the SAIP Draft EIR is not based on information provided by the County. Rather, the information was obtained from a study of on-airport drainage commissioned by LAWA, which focused primarily on on-airport conditions.¹² Therefore, there is some uncertainty about the capacity of downstream facilities, and whether or not a potentially significant cumulative impact may occur relative to those facilities. The SAIP Draft EIR conservatively assumes that a potentially significant cumulative impact may occur, to which the SAIP would contribute.¹³

If a limitation exists in the off-site infrastructure, it would be in the downstream County storm drain system conduit leaving the airport property south on Aviation Boulevard and turning east south of the 105 Freeway toward Dominguez Channel. This downstream storm drain system carries flow from both on- and off-airport property and does not have capacity to carry a 50-year storm event from all areas. However, as noted in the Draft EIR, the estimated peak flow rate at the downstream point within LAWA property after completion of the SAIP is only slightly greater than the current capacity of the downstream LAWA storm drain Line C (166.6 vs. 162.8 cfs), and flows greater than that would begin to create ponding on the airport as noted in the EIR. Therefore, although the potential exists for flows in the County storm drain system to exceed the downstream capacity, completion of the SAIP is not expected by itself to result in a significant increase in adverse off-site impacts. Moreover, if such a capacity limitation exists off-site, detention on the airport may not be the best means for mitigating this cumulative impact. The Draft EIR recommends a feasible and appropriate mitigation for the potential cumulative impact. If the agencies with jurisdiction, that is, the County of Los Angeles and the City of Los Angeles Department of Public Works, determine that on-site detention at each facility that contributes drainage to the noted County storm drain is the most

¹² City of Los Angeles, Los Angeles World Airports, Final On-Site Hydrology Report for Los Angeles International Airport, Prepared by Parsons, Brinckerhoff, Quade & Douglas, Inc., October 2002.

¹³ A more recent watershed study prepared for the Dominguez Watershed Advisory Council and the County of Los Angeles Department of Public Works concluded that the Channel portion is designed to convey the 50-year flood events but that localized flooding occurs more regularly within several cities within the watershed. However, these identified local flooding areas do not include the storm drain system that extends west and northward from the end of the open channel in Hawthorne toward LAX. Because the Parsons study cited above was used in the Master Plan analysis and presents a worst-case analysis, the analysis and conclusions for the SAIP are based on that study. This more recent watershed study, however, demonstrates that the EIR's conclusions in this regard are conservative.

effective mitigation, then the County and/or the City of Los Angeles Department of Public Works would be able to implement this measure. This would be consistent with LAX Master Plan Mitigation Measure MM-HWQ-1.

Finally, the SAIP Draft EIR concludes that, although the SAIP would contribute to a cumulative increase in impervious surfaces within the project area, no significant impacts in the area of water quality would occur due to the requirement that all sizeable development projects (including the SAIP) prepare a Standard Urban Storm Water Mitigation Plan to prevent, control, remove or reduce pollution resulting from construction of new development or major redevelopment projects, as required by the Los Angeles Regional Water Quality Control Board.

Cumulative Surface Transportation Impacts

The Final EIR for the LAX Master Plan evaluated the potential for operation of the SAIP, in combination with other on-airport projects planned under the LAX Master Plan, to contribute to significant surface transportation impacts. The SAIP Draft EIR, which tiers from that analysis, evaluates the off-airport surface transportation impacts of SAIP construction in comparison with an adjusted environmental baseline that includes information about the incremental contribution of all anticipated related off-airport projects. The adjusted baseline also includes trips associated with the construction of those non-Master Plan on-airport projects that are anticipated to be under construction or operational during construction of the SAIP. Because the SAIP Draft EIR's analysis of project-specific surface transportation impacts accounts for the contribution of the SAIP to surface transportation conditions that include the anticipated contribution to surface transportation conditions of other related on- and off-airport projects, the SAIP Draft EIR's analysis of project-specific surface transportation impacts is also adequate to serve as the document's analysis of the incremental contribution of SAIP construction to cumulative off-airport surface transportation impacts.

The LAX Master Plan Final EIR included a general, program-level qualitative analysis of the contribution of construction of the Master Plan projects (including the SAIP) along with construction of related projects, to cumulative off-airport surface transportation impacts, but could not provide more detailed analysis of cumulative off-airport surface traffic impacts due to uncertainty regarding whether construction schedules for the various projects would overlap. (See LAX Master Plan Final EIR, Section 4.3.2.7.) The SAIP Draft EIR concludes that it remains premature to provide detailed evaluation of the degree to which construction of other planned components of the LAX Master Plan would contribute along with construction of the SAIP to a significant cumulative surface transportation impact, because it is not known whether implementation of those components would overlap with construction of the SAIP, and because those components have not reached a level of planning that allows for a reasonable estimate of their contribution to cumulative surface transportation impacts. Nevertheless, the SAIP Draft EIR reaches a tentative conclusion based on the current level of planning that it is unlikely that any planned Master Plan component would make an appreciable contribution toward cumulative surface transportation impacts during the peak month of SAIP construction. Further, the SAIP Draft EIR notes that to the extent it is later determined that any other planned Master Plan component would contribute, in combination with construction of the SAIP, to a significant cumulative surface transportation impact, that cumulative contribution will be assessed and, if feasible, mitigated during environmental evaluation of that other component.

Cumulative Air Quality Impacts

The contribution of operation and construction of all components of the approved LAX Master Plan, including the SAIP, in combination with planned related off-airport projects, to significant

cumulative air quality impacts was evaluated in the Final EIR for the LAX Master Plan. (LAX Master Plan Final EIR, Section 4.6.7, pages 4-721 through 4-749.) Nevertheless, because the SAIP Draft EIR is tiered from the LAX Master Plan EIR, and because it is now anticipated that certain on-airport non-Master Plan projects (including the Tom Bradley International Terminal (TBIT) Improvements and Baggage Screening Facilities and the Terminals 1-8 In-Line Baggage System) may be under construction at the same time as the SAIP, the SAIP Draft EIR evaluates whether construction of the SAIP, in combination with construction of those on-airport non-Master Plan projects, would contribute to a potentially significant cumulative air quality impact. As shown in Table 4.3-15, the SAIP, in combination with those on-airport non-Master Plan projects, would contribute to a significant cumulative air quality impact with respect to both PM₁₀ and PM_{2.5}. The SAIP Draft EIR recommends the adoption of all feasible mitigation for the significant air quality impacts of the SAIP, and notes that specific mitigation measures developed pursuant to the LAX Master Plan process will be adopted prior to project implementation. Nevertheless, the SAIP Draft EIR does not anticipate that feasible mitigation will reduce the significant air quality impacts associated with the SAIP, including the contribution of construction of the SAIP, in combination with on-airport non-Master Plan projects, to a less than significant level. The SAIP's contribution to those significant cumulative air quality impacts with respect to PM₁₀ and PM_{2.5}, therefore, remains significant and unavoidable.

Cumulative Human Health Risk Impacts

The LAX Master Plan EIR examined the contribution to cumulative human health risks of emissions of toxic air contaminants (TACs)¹⁴ associated with operation of the Master Plan projects, including the SAIP. (See LAX Master Plan Final EIR, Section 4.24.1.7.) However, because project-level details were not then available regarding construction phasing, the program-level LAX Master Plan EIR did not address the cumulative contribution of TAC emissions associated with construction of the Master Plan components. Therefore, the SAIP Draft EIR, as a project-level environmental review document tiered from the LAX Master Plan EIR, evaluates the contribution of SAIP's construction-related TAC emissions to cumulative human health risks.

The LAX Master Plan Final EIR evaluated cumulative cancer risk impacts resulting from operations-related TAC emissions based upon MATES-II, an urban air toxics monitoring and evaluation study of cancer risks associated with TACs from all sources within the South Coast Air Basin, which was prepared by the South Coast Air Quality Management District (SCAQMD) in November 1999. (See LAX Master Plan Final EIR, Section 4.24.1.7.) The LAX Master Plan Final EIR concluded that MATES-II provided an appropriate estimate of cumulative impacts of TAC emissions within the Los Angeles Basin. However, the LAX Master Plan Final EIR noted that no standards exist for assessing the significance of cumulative human health risks from TACs, as significance standards in that area are based on the incremental risk increase of individual projects. (See LAX Master Plan Final EIR, Section 4.24.1.7.1.) Nevertheless, the LAX Master Plan Final EIR observed that cumulative cancer risks in the Los Angeles Basin near LAX were already high, and on that basis conservatively concluded that the cumulative cancer risks from all sources in the Los Angeles Basin were significant. (See LAX Master Plan Final EIR, Section 4.24.1.7).

The LAX Master Plan Final EIR also concluded that data from the MATES-II are not sufficiently detailed to support precise quantification of either cumulative cancer risk exposure in the Los

¹⁴ The LAX Master Plan EIR used the term "toxic air pollutants" or "TAPs." In the SAIP Draft EIR, the term "toxic air contaminants" is used, to reflect California regulatory terminology.

Angeles Basin, or the fractional contribution of LAX operations to overall cancer risks. (See Master Plan Final EIR, Section 4.24.1.7.1.) Nevertheless, the LAX Master Plan Final EIR conservatively concluded that under the Master Plan, LAX operations would make a small incremental contribution to cumulative cancer risks, and further concluded that that in 2015, after application of mitigation measures, LAX operations under the Master Plan would result in a reduction of cumulative cancer risks for many people living closest to the airport. (See LAX Master Plan Final EIR, Section 4.24.1.9.1.)

The SAIP Draft EIR similarly bases its evaluation of cumulative cancer risks on information from the MATES-II study, and concludes that such evaluation is feasible only for the incremental contribution of SAIP-related activities. As discussed in the LAX Master Plan Final EIR, it is not possible to quantify cumulative cancer risks, as future sources and releases of TACs are highly speculative. Nevertheless, the SAIP Draft EIR demonstrates that most of the impact associated with the project is due to increased aircraft activity, not to construction-related emissions. Thus, the SAIP Draft EIR conservatively estimates that the incremental contribution of SAIP-related activities to cumulative cancer risks in the SAIP's peak construction year may be similar to that identified for LAX operations under the No Project Alternative in 2005 in the LAX Master Plan Final EIR. The No Action/No Project Alternative in 2005 in the Master Plan shows incremental cancer risks similar to those estimated for the SAIP, and these risks are likewise due primarily to aircraft activity. On that basis, the SAIP Draft EIR concludes that construction of the SAIP may result in a small increase in the contribution of LAX to cumulative cancer risks. The SAIP Draft EIR does not determine the significance of this contribution to cumulative cancer risks, because existing standards that can be used as thresholds of significance for human health risk impacts are applicable only to increases from individual projects. Nevertheless, as discussed in the Draft EIR, Section 4.4 (subsection 4.4.8), LAWA, in its mitigation program for the LAX Master Plan, has committed to mitigating air quality emissions from both construction activities and construction-related changes in airport operations, as well as long-term operations at LAX, to the maximum extent feasible, and this mitigation program will also reduce, to the maximum extent feasible, impacts to human health from exposure to TACs.

The LAX Master Plan EIR evaluated the incremental contribution of SAIP operations to cumulative non-cancer risks, based on a USEPA National Air Toxics Assessment issued in 2002, in much the same manner as it evaluated cumulative cancer risks based upon the MATES-II study. (See LAX Master Plan Final EIR Technical Report S-9a for a discussion of the methods used to evaluate cumulative chronic and acute health hazards.) The LAX Master Plan Final EIR observed that evaluation of non-cancer health hazards from TACs is a very uncertain enterprise. (See LAX Master Plan Final EIR, Section 4.24.1.2.) Nevertheless, the LAX Master Plan Final EIR concluded that implementation of the Master Plan, subject to mitigation measures listed in the Final EIR, was likely to reduce both chronic and acute cumulative non-cancer risks. (LAX Master Plan Final EIR, Section 4.24.1.7.3.)

The SAIP Draft EIR's evaluation of the incremental contribution of the SAIP-related activities to cumulative non-cancer risks follows the same approach used in the LAX Master Plan EIR, including the use of data from USEPA's National Air Toxics Assessment. This method is conservative, as it is likely to overstate approximations of short-term concentrations of TACs associated with acute non-cancer health risks, chiefly acrolein (LAX Master Plan Final EIR, Technical Report S-9a, Supplemental Human Health Risk Assessment Technical Report, Sections 4.1.1 and 7.2). Further, it is not possible to fully quantify cumulative non-cancer health risks, and evaluations of such risks are necessarily based on a range, rather than a precise identification, of possible contributions.

Nevertheless, the SAIP Draft EIR concludes that the SAIP's construction-related activities could make an incremental contribution of between 2 and 14 percent to cumulative acrolein concentrations in the Los Angeles Basin, and thereby add to chronic non-cancer health hazards associated with exposure to TACs. The SAIP Draft EIR further concludes that the SAIP's construction-related activities could make an incremental contribution of between 11 and 71 percent above current cumulative short-term acrolein concentrations, and thereby add to acute non-cancer health risks. As it did with regard to the project's cumulative contribution to cancer risks, the SAIP Draft EIR does not determine the significance of the contribution of SAIP construction-related activities to cumulative non-cancer risks, since existing standards of significance for human health risk impacts are applicable only to increases from individual projects. Nevertheless, as discussed above and in the Draft EIR, Section 4.4.8, LAWA, in its mitigation program for the LAX Master Plan, has committed to mitigating air quality emissions from both construction activities and construction-related changes in airport operations, as well as long-term operations at LAX, to the maximum extent feasible, and this mitigation program will also reduce, to the maximum extent feasible, impacts to human health from exposure to TACs.

Cumulative Noise Impacts

Like its analysis of surface transportation impacts, the SAIP Draft EIR's analysis of construction traffic noise impacts is based on a comparison with an adjusted environmental baseline that includes traffic noise from existing conditions and also from foreseeable future related off-airport projects and those non-Master Plan on-airport projects whose construction is anticipated to coincide with construction of the SAIP. Therefore, the SAIP Draft EIR's analysis of construction traffic noise impacts is, effectively, also an analysis of the contribution of SAIP construction-related activities to cumulative traffic noise impacts. The Draft EIR notes that, because sound levels increase at a rate of 3 dBA with each doubling of sound energy, cumulative traffic volumes would have to increase approximately 3-fold over baseline volumes to create the 5 dBA noise increase that would be a significant cumulative traffic noise impact under the EIR's significance criteria. Accordingly, because the Draft EIR concludes that the addition of project-related traffic volumes to the study area intersections results in an average increase of only 3 percent (rather than the requisite 300 percent), compared with adjusted baseline conditions, during the peak year of SAIP construction (see SAIP Draft EIR, Section 4.2.6.3 and the data summarized in SAIP Draft EIR table 4.2-11), the SAIP Draft EIR concludes that the SAIP, along with other anticipated related projects, would not result in a significant construction traffic noise impact.

The SAIP Draft EIR also evaluates whether noise from construction equipment used for the SAIP would, along with other on- or off-airport projects anticipated to occur during SAIP construction, result in a significant cumulative noise impact. The SAIP Draft EIR observes, based on a list provided by the Los Angeles Department of Transportation, that related off-airport projects likely to be either operational or under construction during SAIP construction would either be located too far from the SAIP site (more than five miles away), or too small in scale (e.g., a fitness center, single family homes, gas station/convenience store, and school expansion) to contribute along with construction of the SAIP to a cumulative noise impact.

Finally, the SAIP Draft EIR evaluates the combined impact of all noise resulting from SAIP construction – including noise from construction traffic, construction equipment, and aircraft operations affected by SAIP construction. The SAIP Draft EIR concludes that this combined construction-related noise impact will not be cumulatively significant, as construction traffic and

equipment noise will not occur in areas where aircraft noise increases, and existing aircraft noise would act to mask construction traffic and equipment noise to a large degree.

Cumulative Biotic Communities Impacts

The SAIP Draft EIR evaluates the contribution of SAIP construction, along with potential contemporaneous construction of other on-airport projects, to cumulative impacts on biotic communities. The SAIP Draft EIR concludes that construction of the TBIT Project will not contribute to a cumulative impact on biotic communities, as the construction staging areas for that project would be located outside areas of concern identified in the United States Fish and Wildlife Service's April 20, 2004, Biological Opinion, which is included in Appendix F-E of the LAX Master Plan Final EIR). The SAIP Draft EIR also concludes that the Terminals 1-8 In-Line Baggage System Project will not contribute to a cumulative biotic communities impact, as the construction staging area for that project (which is identified in Figure F.4.20-2 of the LAX Master Plan Final EIR) is in an area in which mitigation measures identified in the LAX Master Plan EIR will reduce biotic communities impacts to less than significant levels. Finally, the SAIP Draft EIR concludes that the remaining non-LAX Master Plan on-airport projects, the Intersection Improvement Project and Remote Boarding Facilities Modifications project, will take place in areas that are already developed. On the basis of these observations, the Draft EIR concludes that construction of the SAIP is not likely to contribute, along with other on-airport projects, to a significant cumulative impact to biotic communities.

2.7 TR-SAIP-GEN-3 - Relationship between Master Plan Commitments, Master Plan Mitigation Measures, and Project (SAIP) Mitigation Measures

The LAX Master Plan included two types of measures intended to reduce or avoid potential environmental impacts of implementing the Plan, Master Plan Commitments and mitigation measures.

Master Plan Commitments are measures that may not normally be considered mitigation under CEQA because they: (1) are actions that are required by law, regulation, or ordinance, or (2) would serve to reduce impacts that were not considered to be significant in the first instance and, therefore, would not require mitigation under CEQA. In other words, these are voluntary improvement measures proposed and adopted by the lead agency, LAWA. Nonetheless, these are substantial commitments and in many cases will result in major reductions of potential environmental impacts.

Master Plan Mitigation Measures are measures recommended in the LAX Master Plan EIR in response to potentially significant environmental impacts identified as a result of implementing the LAX Master Plan. Where found to be feasible and effective, these measures were made conditions of approval of the LAX Master Plan, and thus must be implemented as part of any Master Plan implementation project to which they are applicable.

The SAIP is an implementation project of the LAX Master Plan. As such it must be consistent with the LAX Master Plan, and it must include, as part of the project itself, the applicable LAX Master Plan Commitments and LAX Master Plan Mitigation Measures. These are specified in each of the impact analysis sections in Chapters 4 and 5 of the SAIP Draft EIR. (They are also listed and summarized in Chapter 1 of the SAIP Draft EIR.) Because these measures are part of the SAIP itself, they are assumed to have occurred or been implemented for purposes of analyzing the potential

impacts of the SAIP. They are not "after-the-fact" mitigation measures developed in response to potentially significant impacts of the SAIP. Nonetheless, as components of the project itself, these measures substantially contribute to reducing or avoiding potentially significant impacts of the SAIP, as well as further reducing impacts that are initially less-than-significant.

Where, despite the inclusion of LAX Master Plan Commitments and Mitigation Measures in the project, the SAIP continues to have potentially significant environmental impacts, the SAIP EIR evaluated whether any additional mitigation measures may be potentially feasible and effective to reduce or avoid those impacts. Given the extremely thorough analysis of potential mitigation measures that occurred in the LAX Master Plan Process, very few additional potentially feasible measures remain. Nonetheless, where such measures were found to exist for the SAIP, the SAIP Draft EIR recommends that those be included as conditions of project approval. The City may make these measures conditions of the project in approving the SAIP, upon its final determination that they are feasible, would likely achieve the desired result, and are consistent with the project's objectives and the LAX Master Plan.

As noted, because the SAIP is a component of the LAX Master Plan and thus was largely analyzed in the LAX Master Plan EIR, most mitigation measures applicable to the SAIP have already been determined and there are few additional measures to be considered specific to the SAIP. When the applicable Master Plan Commitments and Master Plan Mitigation Measures are considered in addition to the few further SAIP-specific measures recommended in the SAIP Draft EIR, however, the SAIP will be subject to a great deal of mitigation.

A project approval pursuant to an EIR must include a Mitigation Monitoring and Reporting Program (MMRP). The purpose of the MMRP is to define what agency is responsible for each mitigation measure required as a condition of project approval, when that measure must be implemented and what criteria are used to determine whether the measure is being implemented and is effective. CEQA Guideline 15097. As explained above, a number of the LAX Master Plan Commitments and LAX Master Plan Mitigation Measures are recommended conditions of approval of the SAIP to mitigate or avoid potentially significant impacts associated therewith. In addition, new mitigation measures, specific to the SAIP and the analysis in the SAIP Draft EIR are recommended. The MMRP for the SAIP thus "tiers" from the MMRP for the Master Plan in that it incorporates the applicable items (Master Plan Commitments and Master Plan Mitigation Measures) from the Master Plan MMRP, and adds the mitigation measures specific to the SAIP. The SAIP MMRP will be considered and adopted by the decision makers at the time the project itself is considered, as CEQA requires.

Mitigation measures must be feasible. CEQA Guideline 15126.4. Feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." CEQA Guideline 15364. The lead agency is responsible for determining whether a mitigation measure is feasible. The EIR may discuss feasibility, but the ultimate decision on whether a measure is "feasible," and whether to require it as a condition of approval is made at the time of project approval by the decision-maker. This decision must be supported by findings, and those findings must be supported by substantial evidence in the whole of the administrative record. An EIR need not evaluate nor recommend every possible mitigation measure for an impact. Rather, it must consider feasible measures that could reasonably reduce potentially significant adverse impacts to a less-than-significant level. Whether to analyze and/or recommend a particular mitigation measure is, again, within the discretion of the lead

agency to determine, based on the whole of the administrative record. Disagreement over whether certain mitigation measures are feasible or should have been considered does not constitute an inadequacy in an EIR.

Accordingly, additional mitigation measures recommended in comments on the SAIP Draft EIR need only be included as recommended mitigation measures in the SAIP Final EIR if those measures are (a) feasible, and (b) appear to reduce or avoid a potentially significant impact of the SAIP below the level already achieved through measures already proposed. Measures directed at mitigating effects of the LAX Master Plan, measures directed at mitigating impacts that are already less-than-significant, measures that would be ineffective, or measures that are facially infeasible, need not be considered further.

In relying on LAX Master Plan Commitments and LAX Master Plan Mitigation Measures for the bulk of its mitigation, the SAIP Draft EIR is consistent with both CEQA's tiering process and with CEQA's general requirements for considering and imposing feasible mitigation.

2.8 TR-SAIP-HRA-1 - Health Risk Assessment and Mitigation for Potential Health Risk Impacts

This topical response addresses concerns about mitigation measures relating to reduction of human health impacts from toxic air contaminants (TAC) and criteria pollutants.

Health Risk Assessment

The assessment of potential health risks for the SAIP followed a protocol that used standard and widely accepted risk assessment methods as set out in guidance from the California Environmental Protection Agency (CalEPA), the U.S. Environmental Protection Agency (USEPA), and the SCAQMD. Protocol, guidance and methods used in the assessment are described in detail in support documents to the LAX Master Plan, including, Technical Report 14a, Human Health Risk Assessment, Technical Report 9, Supplemental Human Health Risk Assessment and their appendices.

The purpose of the human health risk assessment (HHRA) was to provide a conservative evaluation (i.e., an evaluation likely to overestimate risks) of potential health impacts from implementation of the SAIP. Guidance from all of the above sources has the same goal, and risk estimates developed for the SAIP are likely to exceed any actual risks that may exist as a result of the SAIP. As an example of the conservatism used, the risk assessment assumed that a resident would spend 70 years, 350 days/per year and 24 hours per day in a house on the LAX fenceline at a location with the greatest project-related impacts of LAX operations and SAIP construction emissions. No such person exists nor will ever exist near LAX, and all individuals living near the airport now or in the future will experience less exposure than that assumed for the SAIP HHRA.

Briefly, the HHRA consisted of four basic steps:

1. Identify toxic air contaminants (TAC) that are emitted during airport operations and that could pose a threat to human health;
2. Identify ways in which people could be exposed to these contaminants (e.g. by inhalation of TAC released to air as gases or vapors), and estimating the amount of exposure for each TAC of concern;

3. Evaluate toxicity of TACs of concern, including potential to cause cancer, to produce non-cancer health effects after chronic exposure, and to produce non-cancer health effects after short-term (acute) exposure; and
4. Characterize potential human health risks by combining information on exposure and toxicity.

All health risks were estimated as potential incremental risks. That is, they were estimates of the additional impact, if any, implementation of the SAIP might have over an existing and appropriate baseline. This approach was used because the SAIP is a modification to an existing facility (LAX) with ongoing emissions unrelated to the project. Assessments were performed for both pre- and post-mitigation conditions.

Further, the HHRA identified and used appropriate thresholds of significance adopted from SCAQMD rules for purposes of significance determination under CEQA. Thresholds used were an incremental cancer risk of 10 in one million, an incremental chronic non-cancer hazard index of 1 and an incremental acute non-cancer hazard index of 1.

Finally, the assessment used existing information from CalEPA and USEPA to provide an indication of the potential cumulative impacts, if any, of the project on individuals living in the south coast air basin. The cumulative analysis is also part of CEQA requirements.

HHRA Results

The risk assessment used the results of risk analyses performed for the LAX Master Plan to select possible TACs of concern for the SAIP. HHRA efforts for the Master Plan identified over 20 TACs that could be of concern in emissions from LAX operations. Potential exposure to these TACs form the subject matter of the HHRA.

The HHRA used the results of risk analysis for the LAX Master Plan to examine the potential for exposure to TACs via inhalation of vapors and particulate matter in the air, as well as indirect exposure through deposit of particles of some TACs (for example metals) onto the ground surface, followed by exposure through contact with contaminated soil. The result of analysis performed for the Master Plan indicated that exposure to TACs via inhalation was the only means of exposure that might have some potential to impact human health.

The HHRA indicated that incremental cancer risks due to exposure to TACs would exceed the significance threshold for maximally exposed residents living at the LAX fence line. Similarly, incremental chronic and acute non-cancer hazards due to exposure to TACs would exceed the significance threshold for these maximally exposed residents. A semi-quantitative analysis also suggested that the SAIP could contribute to cumulative risks and hazards in the vicinity of the airport, but no significance conclusion could be drawn because of lack of standards on which to base a threshold of significance for cumulative impacts.

Consistent with the results for the LAX Master Plan Final EIR, modeling results for the SAIP indicate that that emissions of 1,3-butadiene, acrolein, benzene, and formaldehyde from aircraft, and of diesel particulates from trucks and construction equipment, are responsible for nearly all potential health risks posed by airport operations (see Appendix L, Table L-13). Specifically, 1,3-butadiene and diesel particulates account for nearly 80 percent of the total incremental cancer risk and acrolein accounts for 97 percent of the non-cancer health hazard.

Health risk impacts from the SAIP as analyzed in the SAIP Draft EIR cannot be directly compared to impacts of Alternative D (later adopted as the LAX Master Plan) as analyzed in the LAX Master Plan Final EIR for several reasons. The LAX Master Plan Final EIR did not evaluate the impacts of individual Master Plan components; rather, the LAX Master Plan Final EIR evaluated the impacts of the entire Master Plan program, including airside improvements, landside improvements, and collateral development. Therefore, a direct comparison cannot be made between the results presented in the SAIP Draft EIR and those presented in the LAX Master Plan Final EIR. In addition, the LAX Master Plan Final EIR did not include an analysis of health risk impacts associated with Alternative D in 2005; rather, the interim year analyzed was 2013, which was identified as the year of peak combined operations and construction impacts for these resources.

The single greatest factor contributing to the incremental health impacts associated with the SAIP is the differential in the number of aircraft operations between the SAIP and the 2003 baseline condition. The number of aircraft operations at LAX in 2003 was 622,378. The projected number of operations at LAX in 2005 with implementation of the SAIP is projected to be 745,112, an increase of nearly 20 percent. Potential impacts related to actual construction activities, when analyzed separately, do not exceed thresholds of significance as defined in the EIR.

Mitigation Measures

LAX Master Plan mitigation measures that address potential air quality impacts of the SAIP, and are thus applicable to the SAIP, are summarized in Section 4.3 of the SAIP Draft EIR. As explained in that section, the following four LAX Master Plan mitigation measures would directly relate to the SAIP and were thus assumed to be part of the SAIP. Accordingly, these measures were accounted for in the TAC emissions and dispersion analysis for the SAIP:

- MM-AQ-1. LAX Master Plan - Mitigation Plan for Air Quality.
- MM-AQ-2. Construction-Related Measure.
- MM-AQ-3. Transportation-Related Measure.
- MM-AQ-4. Operations-Related Measure.

These measures will reduce emissions of TACs during construction and operation of the components of the LAX Master Plan primarily by reducing exhaust emissions from construction equipment and mobile sources, and reducing traffic congestion near the airport. The calculation of TAC emissions and dispersion for the SAIP EIR assumed the full implementation of MM-AQ-1 and MM-AQ-2, partial implementation of MM-AQ-3 and MM-AQ-4. Full implementation of MM-AQ-3 and 4 would be accomplished by 2015. Since the SAIP EIR estimates risks in 2005, the full benefit of MM-AQ-3 and MM-AQ-4 would not be realized.

It should be noted that risks associated with the 2005 No Project Alternative discussed in the LAX Master Plan Final EIR would be similar to the risks calculated for the 2005 SAIP. Risk calculations were provided for the 2005 No Project Alternative in the LAX Master Plan Final EIR, Technical Report 14a, Section 6.3. The modeling methodology has changed between the risk assessment presented in Technical Report 14a of the LAX Master Plan Final EIR and the SAIP Draft EIR. However, based on the similar operations levels between the 2005 No Project Alternative and the 2005 SAIP, it is anticipated that the SAIP would generate risks that are the same or better (lower) than those associated with the 2005 No Project Alternative (conditions at LAX without any Master Plan projects).

Master Plan Commitments

In addition to the LAX Master Plan mitigation measures, the following Master Plan commitments are applicable to the SAIP, and are therefore assumed in the analysis of the potential impacts of the SAIP:

AQ-1. Air Quality Source Apportionment (AQSA) Study. Under this commitment, LAWA will conduct an air quality source apportionment study to evaluate the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations. This study will address several criteria and toxic air pollutants.

AQ-2. School Air Filters. LAWA will provide funding for air filtration at qualifying public schools with air conditioning systems in place.

AQ-3. Mobile Health Research Lab. LAWA will explore the ability to fund/co-fund, to the extent feasible and permissible by federal and local regulations, or seek funding sources to support the goal of a Mobile Health Research Lab. A goal of the Mobile Health Research Lab will be to research and study, not diagnose or treat, upper respiratory illnesses that may be directly related to the operation of LAX.

Although these commitments do not directly reduce emissions of TACs, the source apportionment study will help determine the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations, and research and study performed by the Mobile Health Research Lab will investigate the potential relationship between upper respiratory health effects and the operation of LAX. Information from these studies would then be used to help identify additional measures that can reduce emissions of TACs from the operation of LAX. It should be noted that the LAX AQSA Study will employ state-of-the-art methods to monitor air pollutant concentrations near a runway at LAX. These methods may not comply with standard monitoring protocols, and interpretation of the data would be innovative, and not yet proven at airports. Thus, relying on the LAX AQSA to describe air quality impacts at LAX would be subject to substantial debate. Therefore, a more traditional health risk assessment approach has been used in the SAIP Draft EIR.

Criteria Pollutants and TACs

Criteria pollutants and TACs were evaluated separately in Section 4.6 of the LAX Master Plan Draft EIS/EIR and Supplement to the Draft EIS/EIR, and in Section 4.24.1 of the LAX Master Plan Draft EIS/EIR and Supplement to the EIS/EIR, respectively. In many instances, measures which reduce criteria pollutant emissions also cause a reduction in TAC emissions. In the LAX Master Plan Final EIR, a post-mitigation analysis was conducted which quantified estimated human health risks following implementation of the proposed mitigation measures. For purposes of the SAIP EIR, the effectiveness of the LAX Master Plan mitigation measures is incorporated into the analysis, as the Master Plan mitigation measures are required as conditions of the approval of the Master Plan.

A qualitative discussion of potential interactions among TACs and criteria pollutants was provided in Section 5 in Appendix L, Ambient Air Quality Human Health Risk Assessment.

2.9 TR-SAIP-N-1 - Off-Airport Noise Impacts

Tiered Analysis

Because the SAIP EIR is "tiered" from the LAX Master Plan Final EIR, it evaluates project-specific impacts of the SAIP that were not previously analyzed in the program-level LAX Master Plan Final EIR. Specifically, the SAIP EIR examines the potential impacts of those characteristics or components of the SAIP whose design was not sufficiently developed to support detailed environmental evaluation at the time the LAX Master Plan EIR was prepared, or that have changed since that time. (Please refer to Topical Response TR-SAIP-PD-2 for more information regarding "tiered" relationship between SAIP and the LAX Master Plan Final EIR). The operations-related impacts and associated mitigation of the SAIP in the area of off-airport noise were fully analyzed in Section 4.1.6 and 4.1.8 of the LAX Master Plan Final EIR. However, because planning for construction of the SAIP was not complete at the time the LAX Master Plan Final EIR was prepared, the potential construction-related off-airport noise impacts of the SAIP are evaluated in the project-level SAIP EIR.

A discussion related to off-airport noise impacts associated with SAIP is provided in Section 4.5, in the SAIP Draft EIR. Section 4.5.1.1 describes the four off-airport noise categories and the level of analysis provided in the LAX Master Plan Final EIR for each category. The SAIP EIR explains that additional analysis of the construction-related off-airport noise impacts of the SAIP is needed in three of those categories: (1) aircraft noise exposure associated with a three-runway operation during the runway closure period of the SAIP construction; (2) construction traffic noise; and (3) construction equipment noise. The basis for the additional analysis is described below for each category. Noise impacts of off-airport surface vehicle traffic not directly associated with the construction activity was not evaluated as part of this analysis, because the SAIP is expected to have a negligible effect on non-construction, airport-related vehicle trips and patterns. LAWA concluded that airport-related traffic (non-construction) demand will not change or be re-routed due to SAIP construction. Second, construction-related traffic can be generally regulated and will utilize specific roadways to access the construction site and staging area. Therefore, construction-related impacts can be specifically focused on assigned routes that are designated to provide minimal impact to noise-sensitive areas.

Aircraft Noise

Under Title 14, Code of Federal Regulations (CFR), Part 150 (also referenced in this section as Federal Aviation Regulation (FAR) Part 150) and as shown in M-7a of Appendix M, sensitive land uses (including residential, schools, churches, hospitals, and selected outdoor recreational uses such as amphitheatres) may be incompatible with certain aircraft noise levels (expressed as Day Night Average Sound Level (DNL)). These same guidelines apply to the Community Noise Equivalent Level (CNEL) used for airport noise evaluations in California. Under the standards of significance described in Section 4.5.4 (subsection 4.5.4.1) of the SAIP Draft EIR, which are based on the California Airports Noise Standards (Title 21) and FAA Order 5050.4A and FAA Order 1050.1E, a significant aircraft noise impact would occur when a sensitive land use would be newly exposed to 65 CNEL or greater, or would have habitable exterior areas newly exposed to 75 CNEL or greater, or would be within the existing 65 CNEL contour and would be newly exposed to an increase of 1.5 CNEL or greater, compared to baseline conditions. Under Title 21 of the California Code of Regulations, such uses (with the exception of uses with habitable exterior areas newly exposed to 75 CNEL or greater) may nonetheless be rendered compatible based on the Noise Standards stated in

California Code of Regulations Title 21 section 5014. (Please see Table M-7b, California Incompatible Land Use Guidelines in Aircraft Noise Impact Areas).

Aircraft noise impacts to sensitive land uses of post-construction operation of the LAX Master Plan projects (including the SAIP) were fully assessed and documented in the LAX Master Plan Final EIR. The SAIP Draft EIR therefore examines aircraft noise impacts to sensitive land uses of airport operation during construction of the SAIP. This includes both operational and construction impacts during that period. The SAIP Draft EIR concludes that aircraft noise impacts to sensitive land uses during the 8-month period in which Runway 7R-25L will be closed for SAIP construction will differ from baseline conditions, because aircraft operations that otherwise would use that runway would temporarily be redistributed to the remaining three runways during that construction period.

Although the flight tracks to and from the other runways would not change during SAIP construction, the number of arrivals and departures on those runways would increase to accommodate the traffic that otherwise would have used the closed runway. Therefore, the SAIP Draft EIR employs a quantitative analysis to determine aircraft noise impacts and land use compatibility during SAIP construction. The environmental setting or study area was defined to include all areas in which aircraft noise exposure impacts (related to land use incompatibility) related to the closure of Runway 7R-25L might occur.

The SAIP aircraft noise study area is identical to that developed for the LAX Master Plan Final EIR. It is shown on Exhibit 4.5-5 of Section 4.5.3.1.1, in the SAIP Draft EIR. The SAIP study area includes off-airport areas, including areas beyond the immediate LAX vicinity, containing residential and noise-sensitive uses that would potentially be exposed to project-related aircraft noise levels of 65 CNEL or greater. The SAIP aircraft noise study area is also expanded beyond the vicinity of the airport because the City of Los Angeles, following federal guidance set forth by the Federal Interagency Committee on Noise (FICON) criteria, requires LAWA to disclose to the public, for informational purposes, whether noise-sensitive uses within the airport's 60 to 65 CNEL contour would experience a project-related aircraft noise increase of 3 CNEL or greater when there are 1.5 CNEL increases within the area exposed to 65 CNEL and higher. This supplemental information regarding changes in exposure in areas exposed to aircraft noise less than 65 CNEL does not imply that there is a significant impact, but is provided to the public and decision-makers for informational purposes. Further, the SAIP Draft EIR complies with the FAA's rule that if an air traffic action results in an increase of 5 CNEL in the area exposed to 45 CNEL or more, and that if substantial changes are present in the location or loadings on flight tracks, then disclosure should be made of these cases.

The evaluation of aircraft noise impacts in LAX Master Plan Final EIR and the SAIP Draft EIR thus goes beyond an examination whether significant aircraft noise impacts would occur within the airport's 65 CNEL contour. The contour and grid analysis results presented in Section 4.5.6.1.2 and Appendix M of the SAIP Draft EIR provide this supplemental information for noise sensitive uses outside the 65 CNEL contour area that may be exposed to reportable changes. To further address single event impacts, the SAIP Draft EIR includes an analysis of nighttime single event sleep disturbance impacts and daytime speech disruption impacts on schools that extends into areas outside the 65 CNEL contour.

Construction Traffic Noise

The SAIP Draft EIR's analysis of project-related construction traffic noise is directly linked to its analysis of off-airport surface transportation impacts. The surface transportation information provided in this project-level tiered EIR was prepared to facilitate examination, at a project level of detail, of the potential surface transportation related impacts associated with the construction of the SAIP. The SAIP off-airport surface transportation analysis provides an assessment of the anticipated traffic operations at intersections within a focused study area that would experience construction-related traffic from construction employee vehicles, construction delivery trucks, and other construction-related roadway traffic activity. The limits of the study area and the potentially affected intersections were determined through consultation between LAWA and the City of Los Angeles Department of Transportation (LADOT). They were defined to measure the potential impacts on roadways that accommodate construction-related traffic accessing the construction site and staging area for equipment and materials. Because the travel paths for construction traffic can generally be regulated, the routes designated for SAIP-related construction traffic helped to define the study area. The resulting study area for SAIP is smaller compared to the traffic study area in the program-level LAX Master Plan Final EIR, due to the project-specific nature of the SAIP Draft EIR.

Project-related impact assumptions further limit the surface transportation environmental setting. Assumptions include key off-airport intersections. Because peak-construction-related traffic activity is anticipated to occur during periods that do not coincide with peak commute periods, analysis of roadway segments and freeway links is not required (refer to Section 4.2 (subsection 4.2.6.3 regarding SAIP construction-related peak activity assumptions). Second, a Congestion Management Program (CMP) analysis, which involves arterial and freeway segment/link analysis, is not required for construction-related activity because the SAIP construction would not generate traffic during the a.m. or p.m. peak periods. (The Los Angeles County Metropolitan Transportation Authority (LACMTA) as a formal process for evaluating regional transportation impacts developed CMP.) (Refer to Section 4.2.2.1 regarding arterial and freeway segment/link assumptions.) Sections 4.2.3.1 and 4.2.3.2 in the SAIP Draft EIR, describe and illustrate the off-airport surface transportation study area.

Therefore, the construction traffic noise analysis is focused on areas within the vicinity of the assigned construction routes. If traffic volumes increase more than 3-fold compared to the adjusted baseline, a potential significant impact may occur for incompatible land uses within close-proximity of the designated routes and intersections refer to Section 4.5.4.2 regarding the threshold of significance for off-airport construction traffic noise. As discussed in Section 4.5.6.2 in the SAIP Draft EIR, traffic volumes at key construction-related intersections did not increase more than 3-fold, and therefore no significant construction traffic noise impact will occur.

Construction Equipment Noise

Construction equipment noise impacts typically take place within close proximity of the construction site. For this project-level tiered EIR, specific information related to the construction site and staging area location, scheduling and the nature of construction activities is made available. Based on the information and 2003 baseline ambient (non-construction) CNEL levels, the SAIP construction equipment impact area is within approximately 500 ft from the construction-site boundary. The 500-foot buffer around the boundary signifies the environmental setting that may potentially be significantly impacted by the construction equipment noise. As disclosed in Section 4.5.6.3, there are no noise-sensitive or incompatible land uses located within 500 foot of the construction site boundary, and therefore no significant construction noise impact will occur.

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III. Comments and Responses

SAIP-AS00001 Witherspoon, California Environmental Protection 9/14/2005
Catherine Agency, Air Resources Board

SAIP-AS00001 - 1

Comment: The California Air Resources Board (ARB) staff has reviewed the Los Angeles World Airports (LAWA) Draft Environmental Impact Report for South Airfield Improvement Project (Project DEIR), which assesses the potential impacts of relocating existing Runway 7R/25L at the Los Angeles International Airport (LAX) approximately 55 feet to the south and constructing a new center taxiway between the two south runways.

We understand that the runway relocation is the first of several projects designed to improve air traffic safety and security at LAX, without adding new capacity to handle more passengers or cargo. Because the Project DEIR is "tiered" from the LAX Master Plan Final EIR, it focuses on any additional impacts specific to this phase that were not already addressed in the Master Plan Final EIR.

LAWA has committed to an extensive mitigation program with a list of specific measures in the Master Plan Final EIR, as well as an open-ended commitment to continue working to develop additional measures that can be identified. We focused our review of the Project DEIR on the mitigation measures to reduce air pollution, especially diesel particulate matter, from mobile equipment during the construction effort.

For heavy diesel construction equipment, the Project DEIR relies on mitigation measures to reduce emissions by 85 percent for fine particulate (PM2.5) and 24 percent for nitrogen oxides (NOx) by 2005. These measures include use of Lubrizol fuel, particulate traps, and injection timing retard. For diesel generators, mitigation measures would achieve 83 percent control of PM2.5 and 46 percent control of NOx emissions via partial replacement with electric generators, plus use of Lubrizol and particulate traps.

We continue to be encouraged by LAWA's commitment for aggressive particulate and NOx reductions from the construction equipment and generators. Since LAWA originally developed the construction mitigation measures several years ago for the Master Plan EIR, we'd like to update you on the status of control technology available today. There has been considerable progress in designing and verifying retrofit control devices like diesel particulate traps and other devices that reduce NOx as well. Unfortunately, there are not yet devices available for all types of off-road diesel construction equipment.

In light of technology development, LAWA may need to add other mitigation approaches to achieve the expected emission reductions from construction-related equipment. One possibility would be to use only newer diesel construction equipment meeting Tier 1 (or Tier 2/Tier 3, where available) emission standards on the project to supplement the other measures. For the generators, LAWA could assess the feasibility of requiring a higher proportion of electric units to meet the emission targets.

Based on discussions with your staff and consultants, we understand that LAWA intends to include air pollution mitigation requirements in its contracts for construction services. We are available to assist LAWA staff in developing mobile source emission control specifications for the construction contracts to ensure use of the most effective techniques to cut diesel pollution and the associated health risk.

Response: This comment is generally supportive of the SAIP and of LAWA's efforts to mitigate potential impacts of the project, primarily with regard to air quality. Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. Construction-related air quality mitigation measures that would be implemented as part of the SAIP are described in Section 4.3.5 of the Draft EIR. Other feasible mitigation measures, including those targeted at reducing diesel particulate emissions, will be detailed in the LAX Master Plan – Mitigation Plan for Air Quality (LAX MP-MPAQ). The MPAQ is being developed as a condition of approval of the

Master Plan and will be completed before the SAIP is implemented. The SAIP will include, as conditions of approval, applicable measures set forth in the MPAQ that will reduce or avoid potentially significant environmental impacts.

While LAWA staff will ultimately be responsible for ensuring that emission reduction targets are met and for developing emission control specifications for the construction contracts, the selected contractor(s)/builder(s) will also be responsible via contract conditions for designating a person or persons to ensure the implementation of all components of the construction-related measures through direct inspection, record reviews, and investigations of complaints. LAWA would welcome the assistance of CARB in developing emission control specifications for mobile emission sources.

SAIP-AS00001 - 2

Comment: ARB staff also reviewed the Human Health Risk Assessment chapter. We encourage LAWA to expand its documentation on the methodologies and assumptions used in the risk assessment. My staff has informally conveyed minor suggestions for improvement.

Response: Comment noted. ARB requested clarification regarding various aspects of the health risk assessment methodology in a telephone conversation on September 21, 2005. A summary of these recommendations, and responses to them, are provided below.

1. Page L-5: ARB requested clarification addressing why multi-pathway assessment was not included (noting that some of analyzed substances have non-inhalation risk parameters).

The HHRA for the LAX Master Plan addressed pathways other than inhalation (Technical Report 14a, Human Health Risk Assessment). Accumulation of non-volatile TACs was insufficient to imply any substantial risk following deposition of TAC onto soils or surface water, and subsequent exposure to TAC in these media. Most TAC emissions are associated with aircraft operations for both the analyses in for the LAX Master Plan and for the SAIP. These same conclusions about exposure pathways other than inhalation also apply to the HHRA for the SAIP. Therefore, multi-pathway assessment would not have yielded any new impacts associated with the project, and are not required to be evaluated in the SAIP Draft EIR.

2. Page L-6: ARB prefers that OEHHA risk parameters be used when available, and U.S.EPA parameters be used to fill gaps when OEHHA parameters are not available.

The HHRA for the SAIP used the same approach and exposure parameters as those used in the HHRA for the LAX Master Plan. The LAX Master Plan HHRA relied upon OEHHA guidance current at the time that that assessment was originally prepared (1999/2000). Subsequent to that time, OEHHA has updated its guidance for the preparation of health risk assessments. Because the SAIP EIR is a tiered document under CEQA (as explained in Topical Response TR-SAIP-PD-2), the SAIP EIR used a methodology that was consistent with that used for the LAX Master Plan EIR. Use of a consistent methodology allows the results of the programmatic and project-specific assessments to be compared.

Both the LAX Master Plan HHRA and the SAIP HHRA used OEHHA risk parameters based on the OEHHA guidance in effect at the time the LAX Master Plan EIR was prepared. Dr. James LaVelle, LAWA's human health risk assessment expert, evaluated the more recent OEHHA guidance, and determined that use of that guidance would not have materially affected the results of the analysis and, moreover, would not have altered the significance conclusions of the SAIP EIR.

3. Page L-18: ARB did not see a map identifying the maximum impact locations, and recommends that one be added if not already part of the report.

In response to this comment, an exhibit illustrating maximum human health impact locations has been added to the Final EIR. Please see Chapter IV, Corrections and Additions to the Draft EIR.

4. Pages L-18 and L-19 (including Table L-11):

4a. ARB requested clarification on how health impacts were calculated for each of the receptor types.

Exposure assessment for the HHRA for the Draft EIR followed methods and used assumptions described in Technical Reports 14a, Human Health Risk Assessment and 9a, Human Health Risk Assessment. Exposure assessment is described in detail in these reports. Further, all exposure parameters and calculations are presented for each receptor type in Attachment 3 to Appendix L of the Draft EIR.

Briefly, residents were assumed to live on or adjacent to the LAX fence line for a life time (70 years) for estimation of potential cancer risks. To assess potential chronic non-cancer hazard, adults were assessed using an exposure duration of 70 years. Young children were assessed using an exposure duration of 6 years. School children were assessed for exposures that might occur during typical school years, ages 6 to 12 (6 years of elementary school). These children were assumed to spend 8 hours per day at the school. Standard conservative assumptions were used for exposure frequency, inhalation rates and body weights.

Acute risk calculations were made by a simple comparison of modeled acrolein concentrations to the acute REL for acrolein. This acute REL is intended to be protective for all receptors and no separate calculations are needed to address potential acute health hazards.

For all receptor types, that the MEI was located at, or immediately adjacent to, the airport fence line. This finding suggests that significance determination for human health risks is conservative since, in reality, any actual receptors are located some distance from the airport fence line.

4b. ARB noted that the adult/child receptor scenario is similar to but not quite the same as the OEHHA Guidelines Tier I assessment.

Please see the response to Item #2 above. As indicated in that response, because the SAIP EIR is a tiered document under CEQA, the SAIP EIR used a methodology that was consistent with that used for the LAX Master Plan EIR. The LAX Master Plan HHRA followed the OEHHA guidelines in effect at the time that the original LAX Master Plan EIR analysis was conducted. Dr. James LaVelle, LAWA's human health risk assessment expert, evaluated the more recent OEHHA guidance, and determined that use of that guidance, including the revised adult/child receptor scenarios, would not have materially affected the results of the analysis and, moreover, would not have altered the significance conclusions of the SAIP EIR.

4c. Normalizing by body weight is not consistent with current OEHHA methodology (page L-19).

Please see the response to Item #2 above. As indicated in that response, because the SAIP EIR is a tiered document under CEQA, the SAIP EIR used a methodology that was consistent with that used for the LAX Master Plan EIR. The LAX Master Plan HHRA followed the OEHHA guidelines in effect at the time that the original LAX Master Plan EIR analysis was conducted. Dr. James LaVelle, LAWA's human health risk assessment expert, evaluated the more recent OEHHA guidance, and determined that use of that guidance, including using RELs without normalizing by body weight, would not have materially affected the results of the analysis and, moreover, would not have altered the significance conclusions of the SAIP EIR.

4d. ARB requested clarification as to why listed hazard indices are different based on exposure scenario (receptor type).

The HHRA for the SAIP used the same approach and exposure parameters as those used in the HHRA for the LAX Master Plan. Consistency between assessments is necessary to allow the results of programmatic and project-specific assessments to be compared. HIs differ because RELs or RfCs were converted to inhalation RfDs for the risk calculations. In addition, the location of the peak residential impact was different than that for the school child location.

5. Page L-20: ARB requested clarification of locations of HI impacts in Table L-12 and in text.

In response to this comment, an exhibit illustrating locations of HI impacts has been added to the Final EIR. Please see Chapter IV, Corrections and Additions to the Draft EIR.

6. Pages L-18 & L-20: ARB suggested including 2003 Baseline health risk impacts (total) to provide context for the project increments.

Comment noted. By providing an analysis of incremental project impacts, the SAIP Draft EIR meets the requirements of CEQA for full disclosure of project-related effects on the environment. Baseline conditions were adequately described using data from the SCAQMD MATES-II study.

SAIP-AS00002 Powell, Cheryl J. State of California, DOT/District 7 9/14/2005

SAIP-AS00002 - 1

Comment: Thank you for including the California Department of Transportation in the environmental review process for the above-mentioned project. Based on the information received, we have the following comments:

In the LAX South Airfield Improvement Project, LAWA proposes to construct a new 75-foot wide ADG parallel taxiway between Runways 7L-25R and 75-25L at LAX. Due to the proposed improvements, the section of the Sepulveda Blvd tunnel (Bridge number 53-0845, Bridge name: International Airport OC) underlying the airfield would be strengthened.

A portion of the bridge superstructure was strengthened in 1979. In 1999, the tunnel was lengthened 51.3m by adding a new extension at the north end.

In 2004, the bridge was designed for widening the strengthened portion of the International Airport OC by 16.89m. In addition, runway 25L will be upgraded to carry a new large class of aircraft (Airbus 380). Environmental clearance for this project was received in the form of a Categorical Exemption/Exclusion on June 9, 1998. LAWA plans to have a bid document for this project soon. The description of this project was located in the following section of the DEIR: Volume 1, section 2.4.2.

Any work to be performed within the State Right-of-way including on, beneath or over the State Right-of-way will need a Caltrans Encroachment permit. A Maintenance agreement and a Cooperative Agreement may also be needed for the project.

Response: LAWA is in the process of applying for the Caltrans Encroachment Permit. The proposed SAIP contract plans related to the strengthening of the Sepulveda Tunnel have been approved by the State. Please reference District's Cooperative Agreement No. 07-4688 for the SAIP Project reference "07-LA-1 KP 42.1, PM 26.18 LAX Runway Realignment EA# 07-24190K." Please see Article 23, 24, and 25 of Section III of the Cooperative Agreement for terms of the maintenance agreement.

SAIP-AS00002 - 2

Comment: We recommend that construction related truck trips on State highways be limited to off-peak commute periods. Transport of over-size or over-weight vehicles on State highways will need a Caltrans Transportation Permit.

Response: Consistent with the requirements set forth in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP), construction truck deliveries and construction employee shifts shall be scheduled by the SAIP construction contractor to avoid the peak periods of 7:00 to 9:00 a.m. and 4:30 to 6:30 p.m.

The comment pertaining to the requirement for a Caltrans Transportation Permit for transport of over-size or over-weight vehicles is noted. The draft specifications for construction of the SAIP outline the environmental requirements that regulate SAIP construction traffic, among other requirements. The draft specifications state that compliance with the Environmental Requirements contained within the specifications "does not exempt the Contractor from compliance with other applicable permits, approvals, requirements, rules and regulations of other agencies with jurisdiction over the work of this contract." Therefore, the contractor will be bound by the Caltrans permitting requirement.

SAIP-AS00002 - 3

Comment: The contractor should agree to avoid excessive or poorly timed truck platooning (caravans of trucks) to minimize transportation related operational conflicts, minimize air quality impacts, and maximize safety concerns.

Response: LAWA, through its Ground Transportation Coordination Office, will periodically review and analyze traffic conditions on designated routes during construction to see whether there is a need to revise truck delivery times to improve traffic operations. The draft specifications for construction of the SAIP outline the environmental requirements that regulate SAIP construction traffic, among other requirements. The draft specifications require the contractor to submit within 30 days after Notice to Proceed, a Construction Traffic Management Plan (CTMP) that shall include a description of how the contractor will manage all construction related traffic. The requirement to schedule deliveries and departures from the staging area to avoid excessive platooning will be addressed as part of the CTMP.

SAIP-AS00003 Mulligan, Michael J. State of California, Department of 9/14/2005
Fish and Game

SAIP-AS00003 - 1

Comment: The Department of Fish and Game (Department) has reviewed the above-referenced Draft Environmental Impact Report (DEIR). The following statements and comments have been prepared pursuant to the Department's authority as a Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386), and pursuant to our authority as a Responsible Agency under CEQA Section 15381 over those aspects of the proposed project that come under the purview of either the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) or the Streambed Alteration Program (Fish and Game Code Section 1600 et seq.).

The project consists of construction of a new 75-foot wide parallel taxiway between the two south airfield runways to meet the LAX Master Plan objectives. This requires relocation of Runway 7R-25L, along with all of its associated navigational and visual aids, and also includes utilities, lighting, signage, grading and drainage. Most of the environmental impacts associated with the South Airfield Improvement Project (SAIP) are included in the LAX Master Plan Final EIR, which was a programmatic level EIR. The DEIR for the SAIP focuses on potentially significant environmental effects at the project level that may not have been specifically addressed in the programmatic EIR.

The Department provided comments dated September 21, 2001 on the DEIS/DEIR for the Los Angeles International Airport Proposed Master Plan Improvements, and November 6, 2003 on the Supplement to the DEIS/DEIR (copies enclosed). As expressed in our previous comments, the modified HEP method that was used to assess habitat impacts is not a recognized methodology, nor is it logically sound. Therefore, the impact analysis and the determination of significance, which are both based on this, are not valid. That same methodology is used in the SAIP DEIR and continues to be a concern to the Department. The impact analysis that is based on this method undervalues the habitat loss associated with this project and has been used to support development of mitigation that is not consistent with regionally accepted mitigation measures, or with the conservation of the fish and wildlife resources of the State. Please refer to our previous letters for more details in this regard, and for suggested mitigation measures. In addition to this, although the SAIP DEIR at 4.6.4, says that the criteria for determining significance of impacts includes "...the proportion of the resource that would be affected,..." there seems to have been no consideration of the local or regional context of the habitat impacts, from either a project or cumulative perspective.

The Department requests that Los Angeles World Airports use an appropriate methodology in the determination of project impacts and provide an acceptable level of mitigation to addresses each significant impact. The Department finds that the project would not be de minimis in its effects on fish and wildlife per Section 711.4 of the California Fish and Game Code.

Response: This comment pertains to LAX Master Plan Final EIR and incorporates by reference comments on that document. Thus, this is not a comment on the SAIP Draft EIR, and no further response is required. Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR. As noted in the Topical

Response, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, responses to the comments in the LAX Master Plan EIR are incorporated by reference as if fully set forth herein. Responses to the commentor's previous comments concerning the analysis of LAX Master Plan impacts on biotic communities are provided within responses to comment letters AS00005 and SAS00004 included in Part II of the LAX Master Plan Final EIR.

SAIP-AS00004 Roberts, Terry State of California, Governor's Office 9/15/2005
of Planning and Research, State
Clearinghouse and Planning Unit

SAIP-AS00004 - 1

Comment: The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on September 14, 2005, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Response: The comment is noted. It should be noted that comment letters from the following state agencies were sent directly to LAWA and received on or before the close of the public comment period (September 15, 2005): Air Resources Board; and the Department of Transportation. The comment letters are identified as SAIP-AS00001 and SAIP-AS00002, respectively.

SAIP-AS00005 Roberts, Terry State of California, Governor's Office 9/15/2005
of Planning and Research, State
Clearinghouse and Planning Unit

SAIP-AS00005 - 1

Comment: The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on September 14, 2005. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number (2004081039) when contacting this office.

Response: The referenced submittal is identical to the first two pages of comment letter SAIP-AS00003, received separately by LAWA. Please refer to the response to comment letter SAIP-AS00003.

SAIP-AR00001 Smith, Steve South Coast Air Quality Management 9/15/2005
District

SAIP-AR00001 - 1

Comment: South Airfield Improvement Project Environmental Impact Report (SAIPEIR) (August 2005)

1. MM-AQ-3: On page IV-113 of the SAIPEIR, the lead agency identifies LAX Master Plan commitments and mitigation measures applicable to the SAIP, Included as part of the discussion is MM-AQ-3: Transportation-Related Measures. The SCAQMD requests that MM-AQ-3 be revised as follows:

- Requiring program to minimize the use of conventional-fueled fleet vehicles on a permanent basis to reduce air emissions from vehicles at the airport (LAX Master plan Final EIS/EIR, page 4-727).

- Requiring commercial vehicles/trucks/vans/construction worker shuttles using terminal areas (LAX and regional intermodal) to install the cleanest engines available including alternative-fueled and SULEV/ZEV engines to reduce vehicle air emissions (LAX Master Plan Final EIS/EIR, page 4-727),
- Requiring "best-engine" technology (SULEV/ZEV) for rental cars using on-airport RAC facilities to reduce vehicle air emissions.

Response: This comment pertains to the September 2004 LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) and the associated Mitigation Plan for Air Quality (MPAQ) and does not raise issues specific to the SAIP Draft EIR. LAWA and its consultants are in the process of finalizing the MPAQ. A copy of this comment will be provided to the authors of the MPAQ for their review and consideration. Portions of the MPAQ applicable to the SAIP will be included as mitigation measures for the project.

SAIP-AR00001 - 2

Comment: 2. Construction Mitigation Measure: In order to further reduce construction emissions, SCAQMD staff recommends that the lead agency revise the following recommended measure to increase effectiveness:

- In Table 4.3-9, the lead agency proposes to prohibit construction vehicles idling in excess of ten minutes. This measure should be revised to prohibit construction (heavy-duty) vehicles from idling more than five minutes, to be consistent with state law.

Response: This comment pertains to the September 2004 LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) and the associated Mitigation Plan for Air Quality (MPAQ) and does not raise issues specific to the SAIP Draft EIR. Table 4.3-9 presents a summary of construction-related mitigation measures as they appear in the September 2004 MMRP and the Draft MPAQ. LAWA and its consultants are in the process of finalizing the MPAQ. A copy of this comment will be provided to the authors of the MPAQ for their review and consideration.

As a condition of the Community Benefits Agreement (CBA) for the LAX Master Plan Program, LAWA shall prohibit diesel-powered vehicles from idling or queuing for more than ten consecutive minutes on-site unless the California Air Resources Board (CARB) adopts a stricter standard, in which case LAWA shall enforce that standard. Effective February 1, 2005, the driver of any diesel-fueled commercial motor vehicle weighing more than 10,000 pounds shall not idle the vehicle's primary diesel engine for more than five minutes at any location per Title 13, Section 2485 of the California Code of Regulations. LAWA shall enforce the provisions of Section 2485 as they apply to diesel vehicles operated by LAWA and Airport Contractors and will include provisions of Section 2485 in contractual documents with Airport Contractors as appropriate for LAX Master Plan projects including the SAIP.

SAIP-AR00001 - 3

Comment: 3. Control Efficiencies: In Table 4.3-8 on page IV-114 of the SAIFEIR and the mitigation measure spreadsheet in the construction emissions workbook in the file Construction Emissions_final(PM2.5).xls (provided separately from the SAIFEIR), the lead agency applies a control efficiency of 24 percent for NOx and 85 percent for PM10. Emulsified diesel fuels for mobile sources, e.g., Lubrizol, only have interim verification status with a NOx control efficiency of 14 percent and a PM10 control efficiency of 63 percent. Even assuming a control efficiency of five percent for keeping engines tuned up, the NOx and PM10 control efficiency for off-road mobile sources is too high. Please explain or correct this apparent discrepancy.

Response: Potential emission reductions (also commonly referred to as control efficiencies) presented in Table 4.3-8 for offroad heavy duty diesel vehicles are associated with the use of clean burning diesel fuel (e.g., Lubrisol), particulate traps, and injection timing retarding. The commentor is correct that the potential emission reductions associated with the use of clean burning diesel fuel only would be 14 percent for NOx and 63 percent for PM10. The combined control efficiency of all three emission reduction strategies was estimated to be 24 percent for NOx and 85 percent for PM10. The emission reduction estimates were developed using information provided by CARB and information

obtained through interviews with Port of Los Angeles staff (the Port uses clean diesel fuel and particulate traps on certain engines). Control efficiencies used in the SAIP Draft EIR air quality analysis are consistent with control efficiencies used in air quality analysis conducted for the LAX Master Plan Final EIR.

SAIP-AR00001 - 4

Comment: 4. Additional Mitigation Measures. Although the emission reduction capability of the following mitigation measures may not be easily quantified, the lead agency should consider implementing them wherever feasible.

- To reroute truck traffic to avoid residential areas or schools.
- Trucks hauling dirt, sand, gravel or soil are to be covered or shall maintain at least two feet of freeboard in accordance with the requirements of Section 23114 of the California vehicle Code.
- To sweep nearby or adjacent streets at the end of the day if visible soil material is carried over from the construction site,
- To provide temporary wind fencing around the construction sites to prevent transport of dust to the surrounding areas during grading or site clearing.
- To install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving construction site.
- Reduce area graded to no more than five acres per day.

Response: LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP). The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR are implemented and completed as part of construction of any Master Plan project such as the SAIP and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. The MPAQ will be completed prior to the implementation of the SAIP. A copy of this comment will be provided to the authors of the MPAQ for their review and consideration. The SAIP is assumed to comply with all applicable laws, including the Vehicle Code section cited in the comment.

SAIP-AR00001 - 5

Comment: 5. Health Risk Assessment

- It is unclear from the discussion in the Draft EIR whether carcinogenic risk from worker receptors were estimated as residential receptors, which is conservative; or if carcinogenic risk from worker receptors was not reported. The Final EIR should either include a statement that declares that carcinogenic risk from worker receptors were estimated as residential receptors, if this was done; or include risk for worker receptors.

Response: Results of the quantitative risk assessment are presented only for residents. Separate calculations for off-site workers were not performed because land use in areas surrounding LAX is mixed and separate calculations for these two receptors would not be informative. Residents are always more heavily exposed than workers at the same location, and variable land use surround LAX suggests that residential exposures are theoretically possible at almost all locations. Since residents are always more highly exposed, and thus are subject to the highest potential risks and hazards, including quantitative risk assessment for off-site workers would not alter the basic conclusions or significance determinations in the risk assessment. It should be noted that the SAIP Draft EIR uses the same approach as used in the LAX Master Plan Final EIR.

SAIP-AR00001 - 6

Comment: -The Draft EIR estimates risk for four receptor types, namely child resident, school child, adult + child and adult resident. On page IV-134, the Draft EIR states that "incremental MEI cancer risks and non-cancer health hazards were calculated for adult residents, residential children ages zero to six years, and for elementary-aged school children at fence-line locations where maximum air concentrations for TACs were predicted. Table L.3-1 presents concentrations and risk values for residence and school locations.

Response: The text quoted from page IV-134 is intended to simply list the receptors included in the quantitative assessment. The HHRA in Section 4.4 of the SAIP Draft EIR reports risks and hazards consistently for adult residents, child residents, adult + child residents and school children.

SAIP-AR00001 - 7

Comment: - The carcinogenic risk value estimated for the school child was calculated with an averaging time of 25,550 days, which is inconsistent with the averaging time of 2,190 days displayed on the top of Table L.3-1 and used in the hazard quotient estimates.

Response: The calculations presented in the SAIP Draft EIR are correct. Cancer risk is proportional to total dose amortized over a lifetime. Thus, the correct averaging time for calculating any carcinogenic risk is a lifetime, or 25,550 days. The averaging time of 2,190 days is used to assess chronic non-cancer health hazards for young children. Non-cancer hazards are proportional to dose rate, not total dose, and the appropriate averaging time is the period of potential exposure (California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, October 3, 2003). Use of these different averaging times for young children is therefore appropriate and consistent with standard risk assessment practice.

SAIP-AR00001 - 8

Comment: - Adjustments are allowed by SCAQMD for workers (i.e., a 40-year adjusted exposure based on working eight hours per day, 240 days per year), No other adjustments are acknowledged by SCAQMD for significance determination. Therefore, all receptors used for significance determination in the Final EIR must be modeled as either a residential receptor, which would include students or residential children receptors; or as an occupational receptor.

Response: Comment noted. All significance determinations in the SAIP Draft EIR are based on residential receptors.

SAIP-AR00001 - 9

Comment: - Appendix L includes risk estimates for construction and operational activities. Carcinogenic risk is estimated over an exposure duration, as stated earlier, SCAQMD only recognizes a 40-year adjusted exposure duration for workers and a 70-year exposure duration for residential receptors. Since the construction period for SAIP is proposed to be 1.5 years in duration, an analysis of carcinogenic risk from construction operations related to the SAIP may not have noteworthy meaning. However, the risk from all construction completed under the LAX Master Plan has more meaning because the total duration of all construction associated with the LAX Master Plan would occur over a substantially longer period of time. A discussion of the risk to receptors from SAIP as a portion of the total risk from all construction under the Master Plan appears to be a more appropriate analysis to be presented in the Final EIR.

Response: Calculations presented in Appendix L of the SAIP Draft EIR that separate out construction and operational impacts are provided only to show their relative magnitude and, as such, are valuable for full disclosure of the nature and source of potential impacts for this phase of construction. Moreover, a summation of potential construction related impacts during the implementation of the LAX Master Plan is not possible at this time. Such an analysis would require detailed information of construction phases that have not yet been developed for other LAX Master Plan Projects to a sufficient level of detail and may not be for some time. In subsequent environmental analyses of construction-related impacts associated with future Master Plan projects, the potential impacts of multiple Master Plan projects with overlapping construction periods will be accounted for as part of the assessment of cumulative impacts. Please see also Response to Comment SAIP-AR00001-11.

SAIP-AR00001 - 10

Comment: - The Air Quality Section and Appendix L include risk estimates for construction and operational activities. A summary table that includes both the construction and operational noncarcinogenic chronic risk should be included in the Final EIR for ease of reference.

Response: Comment noted. Page IV-136 of the SAIP Draft EIR has been revised to include a table that summarizes construction- and operations-related noncarcinogenic chronic risks. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AR00001 - 11

Comment: - The Final EIR should also include a map of the proposed project and surrounding area that includes receptors, sources and identifies the MICR and receptors with the highest hazard indices.

Response: Comment noted. A figure showing the modeling grid on a base map of LAX, along with the locations where the highest incremental cancer risks and non-cancer hazards were estimated, is provided in Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AR00001 - 12

Comment: - The mass GLC scaler presented in the carcinogenic and chronic construction risk tables in Appendix L (Tables L-4.2 and L-4.3) do not appear to match the mass GLC scaler in the AERMOD diesel output file provided to SCAQMD separately from the Draft EIR. The mass GLC scaler used for risk calculations should be consistent with those in the AERMOD diesel output file. The Final EIR should include risk developed from the concentrations estimated by AERMOD.

Response: This comment concerns the AERMOD air dispersion model output files created for the dispersion analysis of construction sources. On August 26, 2005, a CD-ROM containing several AERMOD output files was provided to SCAQMD at their request. The commentor notes that the ground level concentration (GLC) scalars used in the carcinogenic and chronic construction risk assessment in Appendix L do not match values in the AERMOD output file provided on August 26 for the combined operations and construction model run. The file provided on August 26 included a combined model run that was conducted for the acute impact analysis of simultaneous emissions from construction and operational sources. The AERMOD output included both annual and 1-hour average concentrations. It is assumed that annual average is the value to which the commentor refers. However, since this was an acute analysis, only the 1-hour average concentrations were needed and reported in Appendix L. The source parameters for the construction sources in this combined file were based on peak activity, not annual average activity; therefore, the scalars in this file are only appropriate for acute risk assessment not chronic or carcinogenic risk assessments. A second output file containing the carcinogenic and chronic construction analysis was provided to SCAQMD, via email, on September 13, 2005. This file includes the scalars that match the values presented in Appendix L, Tables L-4.2 and L-4.3, of the SAIP Draft EIR. The health risks reported in the SAIP Draft EIR were developed from concentrations estimated by AERMOD.

SAIP-AR00001 - 13

Comment: 6. CO Hot Spots: Although CO concentrations were estimated from on-site using AERMOD, the DEIR does not include a discussion on CO hot spots. The Final EIR should contain a discussion of Co hot spots.

Response: The LAX Master Plan Final EIR documents potential pollutant emissions for the assumed peak construction year for the Master Plan (2005), an interim year (2013), and a future operational year (2015). This analysis includes a CO hotspot analysis like that requested by the commentor.

The air quality analysis presented in the SAIP Draft EIR examines, at a greater level of detail, potential air quality impacts specifically associated with the SAIP. The air quality analysis presented in the SAIP Draft EIR "tiers" from the analysis and findings documented in the LAX Master Plan Final EIR. The analysis has been further refined to incorporate detailed project-related assumptions regarding construction equipment that will be utilized and airport activity levels during the construction of the SAIP.

The air quality analysis in the SAIP Draft EIR describes conditions in two years: 2003 (the latest full calendar year before the date of the August 2004 NOP) and 2005 (the assumed Project peak construction year). The analysis also provides a qualitative assessment of 2008 airfield operating characteristics to confirm that post-construction emissions were adequately addressed in the LAX Master Plan Final EIR and would not be materially affected by the implementation of the SAIP. As discussed in Section 4.3.1 of the SAIP Draft EIR, off-airport ground access vehicle traffic not directly associated with the construction activity was not evaluated as part of the air quality analysis because the SAIP is expected to have a negligible effect on non-construction airport-related vehicle trips as it would not increase the number of aircraft operations at LAX.

Because the air quality analysis conducted for the SAIP Draft EIR did not study airport operations-related vehicle trips on area roadways, and a comprehensive CO hot-spot analysis conducted in support of the LAX Master Plan Final EIR determined that there would be no CO exceedances from operations-related vehicle trips, no additional hot spot modeling was conducted for SAIP construction vehicle trips, which are far fewer and of a shorter duration (and thus less likely to contribute to CO hot spots) than airport operations-related vehicle trips.

SAIP-AL00001 Hartl, James E. County of Los Angeles, Regional 8/22/2005
Planning Commission, Airport Land
Use Commission

SAIP-AL00001 - 1

Comment: In response to your letter dated August 1, 2005 regarding the above referenced project, please be advised that in April 2005, the Los Angeles County Airport Land Use Commission (ALUC) ruled to uphold impasse appeals filed against the LAX Master Plan Program which have not been resolved by the Los Angeles City Council. Therefore, implementation of any aspect of the LAX Master Plan can not proceed until the project is either revised to resolve areas of appeal, or the Los Angeles City Council completes the necessary actions to overrule the ALUC's decision on the appeal. Pursuant to Public Utilities Code (PUC) Section 21670.2(a), a four-fifths vote of the City Council is required to successfully overrule the ALUC determination.

The impasse appeals were received from the City of El Segundo and from the County of Los Angeles, and were filed pursuant to PUC Section 21670.2(a). As no action has been taken by the Los Angeles City Council on the impasse appeal issues, which are directly related to what is now the South Airfield Improvement Project (SAIP), moving forward with the SAIP at this stage would be inappropriate. Enclosed you will find a copy of the ALUC resolution for the action taken on April 20, 2005 on the impasse appeals.

RESOLUTION
LOS ANGELES COUNTY AIRPORT LAND USE COMMISSION

WHEREAS, the Los Angeles County Airport Land Use Commission ("ALUC") met publicly on March 30, 2005 to discuss the appeals submitted by the City of El Segundo and the County of Los Angeles regarding impasses that have resulted between the appellants and the City of Los Angeles over approval of the LAX Master Plan Program ("Master Plan").

WHEREAS, the Commission finds as follows:

1. The State Aeronautics Act ("Act"), Section 21670, et seq. of the California Public Utilities Code ("PUC") requires every county in which there is an airport served by a scheduled airline to establish an airport land use commission.
2. Pursuant to Section 21670.2 of the PUC, the Los Angeles County Regional Planning Commission has the responsibility for acting as the ALUC for Los Angeles County and thereby coordinating the airport planning of public agencies within the County.
3. Section 21670.2 of the PUC also provides that in instances where impasses result relative to airport planning, an appeal may be made to the ALUC by any public agency involved.
4. According to Section 21670(a)(1) of the PUC, one purpose of the Act is to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to

promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

5. As described in Section 21670(a)(2) of the PUC, another purpose of the Act is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

6. The powers and duties of the ALUC are contained in Section 21674(b) of the PUC which identifies the ALUC's role in coordinating airport planning at the state, regional, and local levels as one to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

7. The ALUC's review of an appeal primarily considers whether the airport planning being appealed is consistent with Article 3.5 of Chapter 4 of the Act (Section 21670 et seq. of the PUC). An appeal may be upheld by the ALUC if it finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the airport planning proposed by the public agency whose planning led to the appeal is not consistent with the purposes of the Act. An appeal shall be denied when the ALUC finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the proposed airport planning is consistent with the purposes of the Act.

8. Impasse appeals were received within 30 days of the date of the Los Angeles City Council's final decision on December 7, 2004 on the Master Plan, which is within the time limit established for receiving appeals by the ALUC pursuant to the ALUC Review Procedures, Chapter 2, Section 5.2.2.

9. On March 17, 2005, the ALUC was sent the following material:

- Appeal submittal from the City of El Segundo dated December 29, 2004 and March 20, 2005
- Appeal submittal from the County of Los Angeles dated January 5, 2005
- Correspondence from the California Department of Transportation, Division of Aeronautics dated January 28, 2005
- Correspondence from Carlyle Hall, attorney for Los Angeles World Airports (2 letters, dated February 25, 2005 and February 28, 2005)
- Correspondence from ALUC regarding impasse appeals to
 1. Response letter to R. Austin Wiswell dated March 8, 2005
 2. Response letter to Carlyle Hall dated March 15, 2005
- Section 21670.2 of the PUC
- ALUC Review Procedures (pages 2-21 through 2-24)

10. On March 30, 2005, the ALUC held a public hearing and received oral and/or written testimony from the two appellants, four elected/appointed officials or their representatives, and three members of the public all speaking in support of the impasse appeals. No one spoke in opposition to the impasse appeals. The City of Los Angeles was given several opportunities to speak; however, no one representing the City spoke or presented any written testimony.

11. The impasse issues from the City of El Segundo relate to airport capacity and a regional approach to airport planning. Impasse issues from the County of Los Angeles also concern a regional approach to airport planning, and in addition include consistency with the Los Angeles County CLUP and airport security. The impasses are between the appellants and the City of Los Angeles and concern the City of Los Angeles's decision to approve the Master Plan.

12. Regarding the airport capacity impasse:

a. At the final stage of implementation, the Master Plan proposes to limit the number of aircraft gates to 153 to restrict the airport's capacity to 78.9 million annual passengers (MAP).

b. The City of El Segundo believes that restricting gates is an inadequate capacity control and a dispute over airport capacity between the City of Los Angeles and the City of El Segundo has reached an impasse.

- c. Due to the present, limited ground access system, the maximum capacity of LAX is generally agreed to be 78.9 MAP. The present number of gates at LAX is 115 plus 48 remote stands (for a total of 163 gates).
- d. An independent analysis of airport capacity was provided to the City of El Segundo by an airport facilities expert. The analysis presented information that caused the City of El Segundo to dispute the method used in the Master Plan to constrain capacity. The independent analysis notes that the present constraining factor, ground access, will be improved allowing increased utilization of gates which could increase the airport capacity to as much as 89 MAP.
- e. The City of El Segundo contends that safeguards are not in place in the Master Plan to prevent more than 153 of gates from being used at intermediate phases in the implementation of the Master Plan. The Master Plan only restricts the number of gates in the final phase of development when all facilities have been developed.
- f. Potential discrepancies in passenger capacity could result in unplanned airport impacts in the surrounding community. Unplanned impacts could potentially lead to inappropriate development surrounding the airport. Such development places local jurisdictions, property owners and the airport at odds and thereby prevents the purpose of the Act from being achieved.
- g. The Master Plan proposes to realign the southernmost runway 50 feet to the south, which is one of the facility enhancements. A multi-family structure in the City of El Segundo is located within the proposed runway protection zone (RPZ). The proposed location of the RPZ will create a new safety problem in the City of El Segundo.
- h. The Act recognizes that noise and safety impacts cannot be completely avoided in airport planning. For this reason, airport land use compatibility planning brings together the affected jurisdictions to mutually-agreed impact levels. This type of coordinated planning between jurisdictions minimizes impacts because the airport's interests are protected while local jurisdictions, understanding the noise and safety impacts that will occur from the airport, plan accordingly and protect the interests of its constituents. Approval of the Master Plan while the MAP issue remains unresolved creates the potential for new noise and safety impacts to be introduced without adequate planning or mitigation and prevents the airport land use compatibility planning described in the Act from being accomplished, thereby thwarting the purposes of the Act.

13. Regarding the regional approach impasse:

- a. If the demand for increases in air travel is met with a greater emphasis on other airports in the region, significant capacity increases at LAX would not be necessary. Unnecessarily concentrating airport facilities at one location, LAX, is not the orderly expansion of airports the Act intends.
- b. The ALUC role in orderly airport planning and development includes coordinating with jurisdictions on preferred locations of airport facilities and expansions with regard to surrounding land use compatibility.
- c. The appellants contend that the Master Plan did not consider growth at other airports in the region where airport land use compatibility with the surrounding community may be better achieved.
- d. A regional approach to airport planning that provides for the growth of aviation facilities in undeveloped or less developed areas, such as Palmdale Regional Airport, where airport land use compatibility planning can be more effective would be consistent with the purposes of the Act.
- e. Providing airport facilities in urban areas can be consistent with the purposes of the Act provided that the public's exposure to excessive noise and safety hazards is minimized.

14. Regarding the consistency with the CLUP impasse issue:

- a. The appellant alleges that the ALUC can continue to discuss the matter of the Master Plan's inconsistency with the CLUP and the Los Angeles City Council decision to overrule the ALUC's determination that the Master Plan is inconsistent with the CLUP.

b. The ALUC does not have the ability under the Act to continue the discussion regarding the inconsistency between the Master Plan and CLUP after the City of Los Angeles took its overrule action. During that overrule process, by resolution, the ALUC issued comments in opposition to the Master Plan as it relates to health and safety policies in the CLUP and opposed the City's overrule. The PUC gives the ALUC this authority and requires that the overruling agency consider those comments before taking final action on the overrule.

c. The Los Angeles City Council overruled the ALUC's determination that the Master Plan was inconsistent with the CLUP on December 7, 2004. The decision was made with a 12-3 vote by the City Council.

15. Regarding the airport security impasse:

a. The appellant County of Los Angeles has requested that the City of Los Angeles refrain from taking final action on the Master Plan until the final results of a Rand Corporation study on airport security are released. The Rand Corporation study is focused on the security aspects of the proposed Ground Transportation Center (GTC).

b. The Rand Corporation study on airport security is in progress. A release date has not been made public.

c. The appellant's discussion on this impasse issue was minimal. Most significantly, the appellant failed to show a sufficient nexus between the security issues to be addressed in the Rand study and the purposes of the Act, including the powers and duties of the ALUC. For this reason, the appellant has failed to meet its burden of proof on the issue.

16. Final approval of the Master Plan will position the plan as the guiding planning document until 2015 (the Master Plan planning horizon). Discrepancies between airport plans and local jurisdictions' general or community plans will impair the ALUC's ability to fulfill its statutory responsibility to coordinate the planning for the areas surrounding each public use airport.

17. Airport land use compatibility planning cannot function in urban areas if airport planning does not include negotiation and coordination with surrounding jurisdictions concerning land use planning. When jurisdictions agree on activity and impact levels and plan using the same assumptions, both take responsibility to minimizing the public's exposure to health and safety impacts from the airport.

18. Pursuant to Section 21670.2(a) of the PUC, the action taken by the ALUC on the impasse appeals may be overruled by a four-fifths vote of the Los Angeles City Council, the public agency whose planning led to the appeal.

19. The ALUC Review Procedures, Section 5.5 (ALUC's Possible Actions) provides the standard for action on an impasse appeal. That standard is whether the airport planning being appealed is consistent with the purposes of Article 3.5 of Chapter 4 of the Act (PUC Sections 21670-21679.5).

NOW, THEREFORE, BE IT RESOLVED that the County ALUC:

FOR AVIATION CASE RAV2005-00001 (APPEAL SUBMITTED BY THE CITY OF EL SEGUNDO):

1. Upholds the appeal on airport capacity because there are areas that will be affected by implementation of the Master Plan where new noise and safety problems will be created, thus the Master Plan is inconsistent with PUC Section 21670(a)(1).

2. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

AND FOR AVIATION CASE RAV2005-00002 (APPEAL SUBMITTED BY THE COUNTY OF LOS ANGELES):

1. Denies the appeal concerning the ALUC's prior inconsistency determination on the Master Plan's inconsistency with the CLUP because the ALUC has no authority to discuss the matter after the overrule.
2. Denies the appeal on airport security because the appellant has not met the burden of proof by demonstrating there is a nexus between airport security and the purposes of the Act.
3. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

I hereby certify that the foregoing resolution was adopted by the Los Angeles County Airport Land Use Commission on April 20, 2005.

Response:

The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR. In any case, Section 5.1.4.1 of the SAIP Draft EIR discusses any inconsistencies between the SAIP and the Airport Land Use Plan ("CLUP") adopted in 1991 by the County of Los Angeles Airport Land Use Commission ("ALUC"). Discussion of any inconsistencies between the LAX Master Plan and the CLUP also appears in Response to Comment FAL00003-19 in the FAA Record of Decision, and on page 4-301 in Section 4.2 and Section 4.24.3.6.5 in Part I of the LAX Master Plan Final EIR. Policies of the CLUP and the current status of the CLUP update were presented in Technical Reports 1 and S-1, respectively, of the LAX Master Plan Final EIR.

On December 7, 2004, the Los Angeles City Council overruled the Los Angeles County ALUC based on its State Aeronautics Act Specific Findings to Overrule the Los Angeles County Airport Land Use Commission Determination Regarding the Los Angeles International Airport Master Plan Program Actions (also adopted by City Council on December 7, 2004) (the "Consistency Findings"). The Consistency Findings set forth the City Council's reasons for determining that the LAX Master Plan is consistent with the purposes of the Aeronautics Act (Pub. Util. Code sections 21670, et seq.) ("Aeronautics Act"), as well as the CLUP itself. The Consistency Findings and related documents are available for review during normal business hours at the LAX Master Plan office, located at 1 World Way, Room 218.

According to the 2002 Caltrans Airport Land Use Planning Handbook (the "Caltrans Handbook"), at p. 5-19, once an agency overrules an ALUC's "inconsistent" determination with a two-thirds supermajority vote, the agency action "takes effect just as if the [ALUC] had ... found it consistent with the [CLUP]." Consequently, once the Los Angeles City Council overruled the ALUC's "inconsistent" determination on December 7, 2004, based on the Aeronautics Act Consistency Findings, the LAX Master Plan Program became legally the same in every sense as if the ALUC itself had initially determined it to be consistency with the CLUP, and the ALUC had no further review authority over the LAX Master Plan Program. Indeed, after the LAX Master Plan was adopted on December 7, 2004, the ALUC became obligated to revise its 1991 CLUP to conform to the LAX Master Plan. The Caltrans Handbook explains this principle in its summary section, page "Summary-5," as follows:

"If a long-range master plan has been adopted by the airport proprietor, the [CLUP] must 'be based on' that plan. This requirement means that the [CLUP] must be consistent with the expectations of the airport proprietor with respect to the future development and use of the airport."

Caltrans explicitly acknowledged the Los Angeles County ALUC's obligation to revise its CLUP based on the new LAX Master Plan upon its adoption by the Los Angeles City Council, in a letter dated November 18, 2004. A copy of Caltrans' November 18, 2004 letter is available for review during normal business hours at the LAX Master Plan office.

The commentator's claim, that the SAIP cannot proceed due to the ALUC's purported "impasse" appeal determinations on the LAX Master Plan, is not correct. As explained in the letters from LAWA's counsel to the ALUC on February 25, February 28, and April 19, 2005, and the Caltrans directive dated January 28, 2005, the ALUC lacked the requisite authority to implement "impasse" appeals on the LAX Master Plan. Consequently, the ALUC's purported "impasse" appeal determinations are invalid. Copies of the referenced letters are available on the ALUC's website at <http://planning.co.la.ca.us/ALUC.htm>.

Moreover, the purported "impasse" appeals were filed against the LAX Master Plan, not the SAIP. The "impasse" appeals also did not concern or affect the validity of the LAX Master Plan Final EIR certified on December 7, 2004, on which SAIP Draft EIR is tiered. Under the Aeronautics Act, the ALUC has no authority over environmental impact reports prepared under CEQA by local agencies. Thus, despite the ALUC's inclusion of comments on the SAIP Draft EIR, the ALUC's purported "impasse" appeal determinations on the LAX Master Plan are not applicable here.

SAIP-AL00002 Perlmutter, Robert Shute, Mihaly & Weinberger LLP 9/9/2005

SAIP-AL00002 - 1

Comment: As we discussed over the telephone earlier this week, I am writing on behalf of the City of El Segundo ("City") to request a four-week extension in the deadline to submit comments on the air quality portion of the above-referenced draft EIR. The primary reason for this request is that LAWA did not provide us with critical background documents on the EIR's air quality analysis until Tuesday September 6, 2005. The delay in producing these documents - which we requested via a Public Records Act ("PRA") request on August 11, 2005 - has prevented the City's air quality consultant from meaningfully analyzing the draft EIR. Because the City's consultant has been on a long-scheduled vacation this week, the City's consultant will not be able to commence that analysis until next week at the earliest.

The need for this request could have been avoided had LAWA responded to the City's PRA request within the ten days required under the Act. Indeed, it appears that LAWA did compile most, if not all, of the relevant information within this period. One of the three CD's prepared in response to this request is dated August 22, 2005, the second two days later, and the third simply as "August 2005." Nevertheless, LAWA did not make the documents available until more than two weeks after they were compiled, a full month after the City's initial request. Even this delayed response came only after my repeated phone calls to inquire as to the availability of these documents. Under these circumstances, we believe that this request is amply justified.

Response: This comment is a request for a four-week extension for commentor to submit comments on the SAIP Draft EIR. By letter dated September 16, 2005, LAWA declined this request.

Despite LAWA's express rejection of the commentor's request to be allowed to submit late comments, the commentor submitted substantial additional comments two weeks after the close of the comment period. CEQA does not require the lead agency to respond to late comments. CEQA Guideline 15088. Nonetheless, in the interest of a good faith effort to be responsive to public input on the SAIP Draft EIR, LAWA has provided responses in this SAIP Final EIR to the City of El Segundo's late comments.

The remainder of this response explains why the City's initial request for an extension was not justified, and, therefore, was declined.

The commentor claims that the request is justified because LAWA did not timely provide the commentor with background documents on the Draft EIR. This assertion is incorrect. The commentor states that it requested the documents by a Public Records Act Request dated August 11, 2005. It was known at that time that comments on the Draft EIR were due September 15, 2005. The Public Records Act provides that the responding agency has ten days from its receipt of the request to respond, not by providing the requested documents necessarily, but by notifying the requestor whether it has requested documents that are subject to disclosure, and when those documents will be ready for inspection. LAWA timely provided the required response. Moreover, according to the comment letter itself, within eleven days of the date of the request, LAWA had already compiled a portion of the requested documents and notified the commentor of that fact.

The commentor then failed to respond or make arrangements to inspect the documents until much later. Thus, if there was any inadequacy in the commentor's time to review these documents before comments on the SAIP Draft EIR were due, it was caused by the commentor's failure to act promptly once notified that the documents were available.

Furthermore, as set forth in the Notice of Availability of the SAIP Draft EIR, these documents were available to the public at all times during the period between the publication of the SAIP Draft EIR on August 1, 2005, and the close of the comment period on September 15, 2005. Thus, had the

commentor desired, it simply could have visited the LAWA offices and inspected these documents at any time during that 45 day period.

SAIP-AL00003 Brown, Tim Inglewood Unified School District 9/12/2005

SAIP-AL00003 - 1

Comment: Please consider this correspondence and all prior responses to the LAX expansion as the response to the Notice of Completion of the Draft Environmental Impact Report for the South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX) as prepared by and for the City of Los Angeles.

The Inglewood Unified School District (IUSD) previously responded to the original Environmental Impact Report (September 2001). This prior EIR response remains on file as part of the District's technical response to any and all expansion at LAX and is incorporated by reference to the District's response.

Response: The comment is noted. This comment pertains to the LAX Master Plan Final EIR and incorporates by reference comments on that document. Thus, this is not a comment on the SAIP Draft EIR and no further response is required. Nonetheless, because this SAIP EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Thus again, no further response is required. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00035 and SAL00017, and Responses to Comments AR00006-76 and AR00006-77 in Part II of the LAX Master Plan Final EIR.

SAIP-AL00003 - 2

Comment: The current Draft EIR (August 2005) was reviewed in its entirety; however, the following sections were reviewed in particular due to their specifics regarding school impacts.

Subsection 4.5.2.2.2 Classroom Disruption
Including thresholds which are further discussed in Subsection 4.5.4

Subsection 4.5.3.1.3 Single Event Aircraft Noise Exposure
Table 4.5-6 School Disruption

Subsection 4.5.6.1.4 Single Event Aircraft Noise Exposure and School Disruption
Table 4.5-19, 4.5-20, 4.5-21

Subsection 4.5.8.1.2 Mitigation Measures and Single Event Noise Exposure Impacts and Classroom Disruption

Although the Draft EIR addresses the aforementioned environmental issues, it does not include specific costs involved to mitigate noise

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. As discussed in Section 4.5.8.1.2 of the Draft EIR, LAX Master Plan Mitigation Measures MM-LU-1 and MM-LU-4 are intended to soundproof current ANMP qualified educational institutions and include those that are newly impacted by classroom disruptions caused by aircraft single-event noise. Although the ANMP is expected to be accelerated during the term of the SAIP-construction period, it is not anticipated that the program will be completed during the construction period due to the lengthy implementation process, associated funding availability and costs for Mitigation Measures MM-LU-1 and MM-LU-4, and the short-term and temporary nature of the construction aircraft noise impacts. Therefore, this measure and those similar in nature are not feasible to reduce temporary and short-term aircraft noise impacts associated with the closure of Runway 7R-25L. Costs associated with these measures depend upon each unique structure and the elements required to mitigate the level of impact assessed for the specific location.

In addition to the mitigation measures stated above, LAX Master Plan Mitigation Measure MM-LU-3 calls for a scientific study of the relationship between aircraft noise levels and the ability for children to learn. The methodology used to determine the relationship between levels of noise and

children's ability to learn will be one of the first elements to be developed by educational and psychoacoustical specialists retained by LAWA to conduct the study. Another element of this study shall be the setting of an acceptable replacement threshold of significance for classroom disruption by both specific and sustained aircraft noise events. Effective means that are considered feasible to mitigate findings of impact from this study may also be included in this study. The specific schools selected for inclusion in the study will likely be selected from among those now impacted by aircraft noise and those that are not known to be adversely effected by aircraft noise. Such a study of the effects of aircraft noise levels on classroom learning may also include, as a comparison, noise levels at schools located at a distance from LAX that are unaffected by aircraft noise impacts. The methodology for selecting experts and peer reviewers has not been established, nor have the specific schools been selected for inclusion in the study, though these schools will likely be selected from among those now impacted by aircraft noise and those that are not known, to be adversely affected by aircraft noise. As such, it is impossible to give a definite cost of this mitigation measure.

SAIP-AL00003 - 3

Comment: and ancillary costs from collateral impacts in and around the streets of Inglewood, which include specifically related increased security concerns

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. As described in Table 4.2-9 of Section 4.2.6.1 of the Draft EIR, it is estimated that about 24% of the trips from SAIP construction employees would use local roadways to access the employee parking lots. This information is graphically depicted on Exhibit 4.2-5 of Section 4.2.6.3 of the Draft EIR. As shown on the exhibit, approximately 3% of the traffic would use local roadways to enter the study area via Century Boulevard and 5% would use local roadways to enter the study area via Imperial Highway from the east. These percentages equate to a total of about 17 employee vehicles during the employee peak hour studied (3:30 p.m. to 4:30 p.m.). It is anticipated that some of this traffic could use the local roadways in Inglewood to access Century Boulevard; however, given the small volume that would be distributed over multiple roadways, it is not anticipated that the construction of the SAIP would result in traffic-related security concerns around Inglewood Unified School District (IUSD) school sites. Furthermore, these Inglewood roadways would not serve as typical routes for construction employees or trucks because the Inglewood surface street system is not located within the direct study area and restrictions on SAIP-related truck delivery routes will require only use of freeways and non-residential streets. It is also anticipated that use of surface roadways by employees passing through Inglewood residential areas to access their worksites would be minimal to non-existent. For the reasons provided above, it is anticipated that traffic related security concerns and any associated ancillary costs would not be significant.

Please see Response to Comment SAIP-AL00003-4 for discussion of traffic operations and designated truck routes.

SAIP-AL00003 - 4

Comment: and traffic congestion in and around IUSD school sites.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The limits of the study area and the potentially affected intersections were determined through consultation with the Los Angeles Department of Transportation (LADOT), and include those facilities that would potentially be most affected by construction-related employee and truck traffic resulting from the construction of the SAIP. As described in the Draft EIR, the construction-related employee and truck traffic would be scheduled to avoid accessing the SAIP employee lot or staging area during the a.m. peak period (7:00 to 9:00 a.m.) and during the p.m. peak period (4:30 to 6:30 p.m.). Furthermore, SAIP construction contract requirements will require that truck deliveries be limited to designated truck routes comprised of freeways and non-residential streets. Given the contractual requirements limiting peak hour traffic activity and specifying certain travel routes, the potential impacts resulting from the construction of the SAIP have been minimized and limited to the immediate study area. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to construction of the SAIP.

It is not anticipated that the construction of the SAIP would result in congestion and additional impacts along roadways serving Inglewood Unified School District (IUSD) school sites given that these roadways are farther removed from the study area, SAIP traffic will be limited to non-peak hours, and SAIP traffic use of streets serving the IUSD schools would be minimal to non-existent.

SAIP-AL00003 - 5

Comment: The draft EIR fails to mention before and after school programs as well. Environmental Justice requires the identification of all impacts and revenue pertaining to the development of a major project, such as the LAX expansion in general and the SAIP in particular. Therefore, upon Inglewood Unified School District receiving LAX settlement funds, impacts shall be considered mitigated.

Response: Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the SAIP Tiered EIR to the LAX Master Plan Final EIR. Please also see Topical Response TR-SAIP-GEN-3 for a general discussion of mitigation measures. Additionally, the analyses presented in the LAX Master Plan Final EIR and in the SAIP Draft EIR address impacts and mitigation related to the overall operation of each affected school.

In addition to adequately addressing impacts to schools, the LAX Master Plan EIR, specifically Section 4.4.3, Environmental Justice, adequately addresses impacts related to Environmental Justice. Additionally, the LAX Master Plan EIS addresses Environmental Justice impacts pursuant to federal requirements.

SAIP-AL00003 - 6

Comment: The Inglewood Unified School District has had prior discussions and has reached a settlement with LAX and related agencies towards the mitigation of sound and related environmental impacts. In the event funds are not received by the District, the SAIP will create significant and disruptive impacts regarding the health, safety and welfare of students, employees and parents and, therefore, environmental impacts will remain without adequate mitigation.

Response: Comment noted. As indicated in Response to Comment SAIP-AL00003-5, the LAX Master Plan EIR adequately addresses construction and operations impacts to schools and discusses mitigation for any impacts identified as significant. It is acknowledged that the City of Los Angeles, Los Angeles World Airports (LAWA), and the Inglewood Unified School District (IUSD) have entered into a settlement agreement that includes, among other things, the funding of certain measures to mitigate impacts to IUSD schools resulting from activities at, and associated with, LAX. The adequacy of the analysis of impacts to noise-sensitive receptors such as schools in the LAX Master Plan EIR or in the SAIP Draft EIR is not, however, dependent upon the City's payment of funds stipulated by the agreement. Such payment of funds is a matter of the legal obligations set forth by, and specific to, the agreement.

SAIP-AL00004 Hart, Berne C. Chevalier, Allen & Lichman, LLP 9/14/2005

SAIP-AL00004 - 1

Comment: The following comments are submitted by the City of Inglewood ("Inglewood"), the City of Culver City ("Culver City"), and the County of Los Angeles ("County") (collectively "Commentors") concerning the Draft Environmental Impact Report ("DEIR") for the South Airfield Improvement Project ("SAIP") at Los Angeles International Airport. The DEIR states that "[b]ecause the SAIP was analyzed in the Master Plan EIR, this Draft EIR is 'tiered' from, and incorporates by reference, the LAX Master Plan Final EIR" [DEIR, p. IV-1]. Commentors therefore incorporate their June 14, 2004 Comments on the Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements by reference into the comments presented herein. These comments should also be considered in the context of the full record of County comments on the LAX Master Plan CEQA and NEPA documents. The full record includes (1) a detailed formal comment letter on the initial Draft EIR/EIR released in 2001; (2) a detailed formal comment letter on the Supplement to the Draft EIS/EIR released in 2003; (3) a detailed formal comment letter on the Final EIS/EIR released in 2004; and (4) a detailed formal comment letter on the Consensus Plan

and Alternative E that was submitted to LAWA in 2004. Those County comments are also incorporated herein by reference.

Response: The comment is noted. Please see Responses to Comments below. This comment pertains to the LAX Master Plan Final EIR/EIS and incorporates by reference comments on that document. In accordance with federal and state requirements, written responses were prepared for all comments received during the public review periods for the LAX Master Plan Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, written responses were prepared for all comments received during the public review period for the LAX Master Plan Final EIS. Responses to the commentator's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00022, AL00036, SAL00004, SAL00010, SAL00013, and SAL00014 included in Part II of the LAX Master Plan Final EIR, and FAL00001 and FAL00002 included in FAA's Record of Decision on the LAX Master Plan. Based on the fact that responses have already been provided in accordance with federal and state requirements for the comments on the LAX Master Plan EIS/EIR that the commentator incorporates by reference, and the fact that this comment, as well as the comments incorporated by reference, are not specific to the SAIP Draft EIR, no further response is required.

SAIP-AL00004 - 2

Comment: As a threshold issue, a consistent and central theme of Commentors' prior reviews and comments has been that LAWA has failed to present a fully reasoned, thoughtful and straightforward examination of the potential impacts of the proposed Master Plan project. A similar pattern is evident in the current SAIP DEIR. Our concerns have not been allayed by information provided in the DEIR about the SAIP, the design of which was substantially modified after certification of the Final Master Plan EIR ("FEIR"). A close review of LAX Master Plan CEQA documents over the past 5 years confirms the reality that the adopted Master Plan improvement project and proposed South Airfield improvements will:

- Facilitate unconstrained growth at LAX;
- Ineffectively serve stated security goals;
- Thwart the underlying goals and objectives of CEQA;
- Place a low priority on phasing of environmental and congestion improvements;
- Further erode environmental justice for residents of neighboring communities;
- Further weaken interagency communication and trust;
- Undermine the impetus for expanded regional air transportation; and
- Codify misleading baseline assumptions concerning noise, air quality and human health.

Response: Commentor's remarks regarding the adequacy of the LAX Master Plan Final EIR do not raise issues regarding the contents or the adequacy of the Draft EIR, and therefore do not require further responses. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP Draft EIR to the LAX Master Plan Final EIR.

In response to the commentator's other remarks, Section 1.1.2 of the SAIP Draft EIR provides a summary of the development of the LAX Master Plan Final EIR, which was certified by the Los Angeles City Council on December 7, 2004. The development of the LAX Master Plan Final EIR included extensive consideration, analysis, and documentation of the LAX Master Plan, the various alternatives that were studied and that evolved during the development of the EIR.

The development of the SAIP Draft EIR, as a tiered project-level environmental analysis is described in Section 1.1.3 of the SAIP Draft EIR. The project description is provided in Section 2, specifically subsection 2.4.2. The project description includes more specific information regarding the SAIP and its design than was available during the preparation of the LAX Master Plan Final EIR. The most notable change in the project is that the center taxiway would not extend all the way to the east end of the south runway complex at initial construction, but would stop at Taxiway WF, which is located just east of Sepulveda Boulevard. Extending the taxiway to the end at this time would affect the instrument landing system for Runway 25L. The certification of new technology that would allow the taxiway to be extended to the east end of the runway is expected in the future. No other notable changes to the SAIP as presented the original plan presented in the LAX Master Plan Final EIR have occurred.

Please see Topical Responses TR-SAIP-PD-1 regarding the purpose and need of the SAIP, TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP, and TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR.

SAIP-AL00004 - 3

Comment: While the comments that follow will focus primarily on new material presented in the DEIR, it is important to note that the DEIR explicitly claims to be a "capacity neutral" project, in that it will neither increase nor decrease the operating capacity of LAX.¹ While the SAIP is only a single component of the more expansive Master Plan improvements, and, as such, does not provide the full capacity enhancements associated with the larger plan, it is critical to recognize that the SAIP does provide for additional airside capacity at LAX, and it is only the gate constraints that are assumed for the complete set of planned LAX improvements that allow a capacity neutral assumption. By itself, the SAIP does increase capacity.

The assumed gate constraints are optimistic and represent the linchpin to the entire Master Plan impact analysis. If the assumed constraints are violated (as is almost assuredly going to happen), the entire LAX impact analysis is inadequate, and impacts are substantially understated.

1 See for example, Section 2.5 of the DEIR, which explicitly states that "When the SAIP is completed in 2008, LAX's practical capacity will continue to be approximately the same." See also DEIR, Section 1, page I-1, "the SAIP itself would not increase airport's ability to accommodate passengers, cargo or aircraft operations, nor would it affect the demand for the use of the airport.

Response: Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. The relocation of the centerline of Runway 7R-25L 55 feet to the south would not provide additional airfield or other capacity at LAX. No additional runways would be available and no additional runway length would be provided by the SAIP.

SAIP-AL00004 - 4

Comment: I. THE DEIR UNDERESTIMATES SAIP CONSTRUCTION EMISSIONS IMPACTS²

The DEIR effectively relies on the air quality analyses conducted for the larger LAX Master Plan,³ of which the SAIP is a component project, therefore the comments previously submitted for the Master Plan FEIR/FEIS are equally applicable to the estimated air quality impacts of the SAIP. Those comments will not be restated, however the comments contained in Commentors' February 17, 2005 letter to Mr. David B. Kessler of the Federal Aviation Administration in response to the FEIS are incorporated herein by reference and should be viewed as integral components of this comment letter.

The gate constraint assumption addressed above is equally critical to the air quality impact analysis for the SAIP DEIR. If the gate constraints are presumed to be effective, as is the case in the SAIP DEIR, then the only additional impacts associated with the actual implementation of the SAIP are limited to the specific impacts associated with construction equipment (as opposed to the construction impacts plus the operational impacts associated with added airside capacity). Emissions associated with aircraft, passenger, and airport facility operations are estimated using the methodologies and data assumed in the Master Plan FEIR/FEIS, so there is little additional information on these sources in the DEIR. As a result, the additional comments that follow are related to the estimated construction emissions impacts and, where appropriate, the aggregation of those impacts with other airport emissions.

2 See Attachment 1, Meszler Engineering Services Comments on the Air Quality Elements of the August 2005 Draft Environmental Impact Report for the LAX South Airfield Improvement Project

3 As presented in the April 2004 Final Environmental Impact Report (FEIR) and the January 2005 Final Environmental Impact Statement (FEIS).

Response: The comment is noted. The first portion of this comment pertains to the LAX Master Plan Final EIR/EIS and incorporates by reference comments on that document. In accordance with federal and state requirements, written responses were prepared for all comments received during the public review periods for the LAX Master Plan Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, written responses were prepared for all comments received during the public review period for the LAX Master Plan Final EIS. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00022, AL00036, SAL00004, SAL00010, SAL00013, and SAL00014 included in Part II of the LAX Master Plan Final EIR, and FAL00001 and FAL00002 included in FAA's Record of Decision on the LAX Master Plan. Based on the fact that responses have already been provided in accordance with federal and state requirements for the comments on the LAX Master Plan EIS/EIR that the commentor incorporates by reference, and the fact that this comment, as well as the comments incorporated by reference, are not specific to the SAIP Draft EIR, no further response is required.

The remainder of this comment is essentially the same as comment SAIP-AL00004-3; please refer to Response to Comment SAIP-AL00004-3.

SAIP-AL00004 - 5

Comment: A. PM-2.5 Exceedances

It is noteworthy that PM-2.5 emission estimates are included in the DEIR. PM-2.5 emissions were not considered in the Master Plan impact analysis, but just as exceedances of both the PM-2.5 CAAQS and NAAQS are demonstrated in the SAIP DEIR, corresponding exceedances would have been demonstrated for the overall Master Plan. Moreover, the exceedances occur under both unmitigated and mitigated conditions, as well as under emissions estimation methodologies that are likely to significantly underestimate actual PM emission rates.

Response: The content of the first part of this comment is similar to comment SAIP-AL00004-12; please refer to Response to Comment SAIP-AL00004-12.

Particulate emission methodologies used in the air quality analysis for the Draft EIR for the SAIP do not significantly underestimate actual PM emission rates. PM10 and PM2.5 analyses were conducted using the most recently available data and methodologies. The emissions estimating and dispersion modeling methodologies are described in Section 4.3.2 of the SAIP Draft EIR.

The methodologies used to estimate emissions of PM2.5 and PM10 associated with the SAIP construction activities and airport operations during the construction period were coordinated with local agencies including SCAQMD. PM10 and PM2.5 concentrations associated with the SAIP project were calculated using the FAA's Emissions and Dispersion Modeling System which incorporates the U.S. Environmental Protection Agency's AERMOD dispersion model and the meteorological preprocessor, AERMET. As discussed on page IV-100 of the Draft EIR, ambient air quality data sampling data for PM2.5 is not collected at the ambient air quality monitoring station closest to the airport, the Southwest Coastal LA County station. Please see Response to Comment SAIP-AL00004-9 regarding background PM2.5 concentrations.

SAIP-AL00004 - 6

Comment: B. Off-road Equipment Emission Factors

The DEIR indicates that emission factors for off-road construction equipment were taken from the California Air Resources Board's (CARB's) OFFROAD Model. This is the appropriate source, but the data presented in Table K-2 of Appendix K of the DEIR imply that the extracted emission factors may not be correct.

Since the SO2 emission rate is determined on the basis of fuel sulfur content, SO2 emission rates will be discussed separately from the emission rates for VOC, CO, NOx, and PM. If the emission rates for these latter four emission species from OFFROAD for model year 2005 equipment are extracted, rates that are very close (in most cases) to those indicated in Table K-2 will result. However, these rates differ significantly from fleet average emission rates in 2005. In effect, model

year 2005 emission rates assume that all equipment is new, while fleet average emission rates properly assume a mix of older and newer equipment. Unless LAWA intends to require that only new equipment can be used in the SAIP construction, it is not appropriate to use new equipment emission rates.

Comparing model year 1995 and 2005 emission rates from the OFFROAD Model for three of the equipment types listed in Table K-2 provides an indication of the potential sensitivity of emission impacts to such an assumption. This comparison shows that 1995 emission rates would be on the order of five times higher for VOC, two times higher for CO and NO_x, and three times higher for PM. Thus, a typical 2005 construction vehicle fleet mix would exhibit emission rates significantly higher than those assumed in the DEIR.

For SO₂ the DEIR assumes that all diesel fuel will contain 15 ppmW sulfur beginning in 2005. While this assumption is correct for 2007 and later, CARB currently assumes that 2005 diesel fuel sulfur in the South Coast Air Basin will be 130 ppmW.⁴ Since SO₂ emission rates are directly proportional to fuel sulfur content, this means that actual 2005 SO₂ emissions from construction vehicles (and other diesel equipment) will be approximately nine times higher than estimated in the DEIR.

These problems do not appear to affect that portion of the construction vehicle emissions inventory that is based on on-road emission factors derived from the CARB EMFAC model.

4 See "OFFROAD Modeling Change Technical Memo: Off-Road Exhaust Emissions Inventory Fuel Correction Factors," California Air Resources Board, July 25, 2005.

Response: Off-road exhaust emission factors for CO, VOC, NO_x, and PM₁₀ used in the SAIP Draft EIR were developed using the California Air Resources Board (CARB) OFFROAD Model. These emission factors are specific to the South Coast Air Basin and were developed in coordination with South Coast Air Quality Management District staff during the preparation of the EIR/EIS for the LAX Master Plan. As discussed in Section 4.3.2.3.1 of the SAIP Draft EIR, SCAQMD Rule 431.2 specifies that in the South Coast Air Basin a liquid fuel's maximum sulfur content is 500 parts per million by weight (ppmw) until January 1, 2005 and 15 ppmw thereafter. SO₂ emission factors used in the air quality analysis for the Draft EIR are derived from sulfur limits set by SCAQMD Rule 431.2 and are not based on information contained in the California Air Resources Board memorandum cited by the author of the comment.

SAIP-AL00004 - 7

Comment: C. Reverse Thrust Emissions

This issue has been covered thoroughly in previous comment letters, but it is worth expanding those comments here since the DEIR now formalizes the assertion that reverse thrust emissions are inherently included in the "extremely conservative" takeoff and climbout mode emission estimates.⁵ As in the responses to comments to the Master Plan FEIR/FEIS, where this assertion was originally presented, there are no calculations demonstrating that the "extra" takeoff and climbout time is sufficient to offset reverse thrust operating time, or that emissions in climbout mode are equivalent to ground-level reverse thrust emissions from an ambient air quality standpoint. Instead, the assertion simply stands alone to be taken as demonstrative fact.

Tables K-8 and K-9 of DEIR Appendix K present the actual assumed takeoff and climbout times for all LAX aircraft. A quick review of these data indicates that the combined time of these two operating modes is generally on the order of 1.5 to 2 minutes. A typical reverse thrust operation is on the order of 15-20 seconds (0.25-0.33 minutes). Therefore, takeoff and climbout times must be overestimated by at least 15-30 percent to adequately incorporate reverse thrust operating time, and substantially more to be "extremely conservative." Accordingly, it would seem that a supporting demonstration would be in order before an assumption of conservatism is offered as fact.

5 The implication of the DEIR is that because takeoff and climbout times are based on maximum aircraft weight, and not all aircraft will be operating at that weight, that the emission rates for these modes are overstated. That may well be true, but the DEIR makes no attempt to quantify the degree to which: (1) actual weight will vary from maximum weight, or (2) the impact this variation

has on takeoff and climbout times. Instead, the DEIR simply makes the qualitative assertion that this results in the times being "extremely conservative." (see DEIR page IV-92, footnote 19). As a result, it is not possible to compare reverse thrust times to the asserted "additional" takeoff and climbout times.

Response: The content of this comment is essentially the same as comment FAL00001-30 submitted regarding the Draft General Conformity Determination for the LAX Master Plan. As explained in the Response to Comment FAL00001-30, on May 22, 2002 the FAA provided information regarding default assumptions used in EDMS for aircraft takeoff weight to LAWA. The default takeoff weight is the maximum weight capacity of the airframe. Using the maximum takeoff weight generates the highest time in mode for the takeoff and climbout modes of a landing takeoff cycle, and the highest emissions for these operating modes. As FAA noted at that time, using the EDMS default assumptions regarding takeoff weights may be overly conservative, since not every aircraft operating out of LAX will be loaded to its maximum takeoff capacity.

The EDMS default takeoff weights were used in the air quality analysis conducted for the SAIP Draft EIR, and their use results in a takeoff/climbout time-in-mode that can also account for emissions from reverse thrust due to the conservative nature of the default assumption. Using a realistic weight factor to determine the time spent in the takeoff and climbout modes, and adding 15 to 20 seconds to represent reverse thrust (as suggested in the comment) would likely produce results consistent with the results reached in the SAIP Draft EIR and earlier analyses using the maximum EDMS takeoff/climbout weight assumptions. As a practical matter, assuming that all aircraft depart LAX at the maximum recorded takeoff weight, as was done for the SAIP Draft EIR, accounts for emissions approximately equal to those from reverse thrust, and does so in a manner consistent with the general approach suggested by the commentor.

As discussed in Response to El Segundo Comment III.B.1.b submitted regarding the Draft General Conformity Determination for the LAX Master Plan, reviewing the potential range of takeoff weights for four common airframes that operate at LAX (A320, B737-500, B747-400, and B757-200) and associated takeoff and climbout times in EDMS indicates that a 10 percent decrease in takeoff weight corresponds to a 14 percent decrease in takeoff and climbout time. Therefore if a less conservative assumption regarding takeoff weight had been used in the SAIP Draft EIR air quality analysis (e.g., that planes departed at 90% of maximum takeoff weight) the time spent in the takeoff and climbout modes would be 14 percent lower than they are when the aircraft are assumed to operate at maximum takeoff weight. For the airframes listed above the decreased time represents 11 to 16 seconds, about the same length of time that reverse thrust might be used. Therefore assuming that all aircraft depart LAX at the maximum takeoff weight implicitly includes the calculation of reverse thrust emissions in the airport emission inventory.

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Comment: D. Background Concentrations

Here also, prior comments provide extensive discussion of concerns associated with the use of the linear rollback method to estimate future background concentrations. Data presented in the DEIR provide additional insight into the difficulty associated with this approach. For example, the DEIR presents 1999-2003 data for the monitoring station used to estimate LAX background concentrations. [See Attachment 1, Meszler Engineering Services Report, page 4, Figure 1. "24-Hour PM-10 Concentrations (pg/m³)" which presents a summary of that data for 24-hour PM-10 concentrations, selected for illustrative purposes since PM is the pollutant for which the greatest air quality impacts are predicted.] As indicated in Figure 1, a simple linear trend of 1999-2003 data indicates a modest uptrend in local PM-10 measurements. However, based on emission reductions expected in central Los Angeles between 2000 and 2005, the DEIR forecasts the 2005 background concentration to be approximately 30 percent below the trend line forecast.

Because the assumed reduction in background concentrations is the primary reason that airport emissions increases can be accommodated within the limits of the CAAQS/NAQS (except for PM), it is incumbent on project proponents to demonstrate that linear rollback is reasonable for an emissions source that is on the perimeter of the inventory domain. If inventory reductions cannot be reasonably expected to produce similar air quality impacts throughout the domain, as could be the case at LAX with prevailing winds off the Pacific, then domain-wide emission reductions cannot

serve as a reliable basis to estimate future changes in local background concentrations. As demonstrated in Figure 1, inventory reductions for PM in central Los Angeles do not appear to provide accurate future emission forecasts for background PM at LAX. While it would be prudent to conduct substantially more detailed analysis than the simple example illustrated before reaching a definitive conclusion, the point is that no such analysis has been performed for LAX, yet the entire range of air quality impacts depend directly on the accuracy of background emissions estimates.

Response: The content of this comment is similar to comment FAL00001-29 submitted regarding the LAX Master Plan Final EIS. As explained in the Response to Comment FAL00001-29, the methods for estimating future background ambient concentrations were developed in coordination with SCAQMD, the local agency with expertise in air quality analysis. These same methods were used in the air quality analysis conducted for the Draft EIR for the SAIP.

Preparation of the Air Quality Modeling Protocol for Criteria Pollutants (Attachment A of Technical Report 4 of the Final EIS) included three meetings with the SCAQMD staff in which the District's comments on the protocol were solicited and incorporated into the protocol. The method and data used to estimate the future background concentrations were specifically addressed in these discussions, and SCAQMD concurred with the final approach. Thus, after consulting with State representatives with particular knowledge of conditions in the vicinity of LAX, the linear rollback method was used for the gaseous pollutants (not including PM₁₀), as described in the protocol. The linear rollback method applied in the protocol has been used by the SCAQMD in both the 1997 AQMP, which includes the South Coast Air Basin emission budgets of the currently approved SIP, and the 2003 AQMP.

With respect to estimating future background concentrations for PM₁₀, LAWA has consulted with SCAQMD regarding the method to be used to estimate future background concentrations for this particular pollutant, and LAWA has used the method recommended by the SCAQMD in the Draft EIR for the SAIP.

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Comment: E. Background PM-2.5 Concentrations

The 24-hour background concentration for PM-2.5 is entirely inconsistent with the assumed 24-hour background concentration for PM-10. It is physically impossible for PM-2.5 concentrations (83.7 µg/m³) to exceed PM-10 concentrations (61 µg/m³), as the latter includes the former. Either the assumed PM-10 concentration is too low, or the PM-2.5 concentration is too high. If the latter, then the air quality analysis would be conservative for PM-2.5, but it is unclear why such an inconsistency is carried throughout the DEIR. The DEIR does indicate that the two values are derived from different sources, but it is not clear why PM-2.5 to PM-10 ratios were not used in place of what appear to be absolute PM-2.5 data.

Response: Section 4.3.2.6 of the Draft EIR describes the methodology that was used to determine background concentrations of PM_{2.5} at the time of project implementation (2005). PM₁₀ and PM_{2.5} concentration data collected at the Central LA and South Coastal LA County stations in 2003 were used to determine a ratio of annual arithmetic mean (annual) PM₁₀ to annual PM_{2.5} concentrations. This ratio was applied to the assumed annual background concentration for PM₁₀ presented in Table 4.3-3 of the Draft EIR to determine an annual background concentration of PM_{2.5}.

A different process was utilized to determine the 24-hour PM_{2.5} background concentration (i.e., the ratio of PM₁₀ to PM_{2.5} concentrations was not used). As discussed on page IV-100 in Section 4.3 of the Draft EIR, the 24-hour PM_{2.5} background concentration used in the air quality analysis is based on ambient air quality data (maximum 24-hour concentration) recorded at the Central LA air quality monitoring station. The reason for using a different process to estimate the 24-hour concentration is due to differences in the ambient air quality datasets available for PM₁₀ and PM_{2.5} for calendar year 2003. The SCAQMD monitoring network samples PM_{2.5} concentrations every 3 days, but only every six days for PM₁₀. As was discovered after reviewing the ambient air quality data for 2003, it is possible to have a higher 24-hour concentration of PM_{2.5} occur on a day when PM₁₀ is not sampled.

As discussed in Section 4.3.9 of the SAIP Draft EIR, concentrations of PM2.5 from on-airport and construction-related sources when added to background ambient concentrations would exceed the California and Federal ambient air quality standards (AAQS). Concentrations of PM10 from on-airport and construction-related sources when added to background ambient concentrations would exceed the California ambient air quality standards (CAAQS). Significance conclusions reached regarding PM2.5 concentrations are not directly comparable to the significance conclusions reached for PM10 since a different approach was used to determine the future background concentrations of PM10 and PM2.5. The method for estimating future ambient concentrations of PM10 and PM2.5 and the PM2.5 emission methodologies were coordinated with SCAQMD, the local agency with expertise in air quality analysis.

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Comment: F. Combined Project Impacts

DEIR Table 4.3-14 presents the estimated air quality impacts of the SAIP, while Table 4.3-15 presents the combined impacts of the SAIP and other concurrent projects. From these tables, it is apparent that the impacts of the non-SAIP projects are assumed to be zero, except in the case of annual average PM-10 concentrations which actually decline when the SAIP is combined with other concurrent projects (43.3 µg/m³ with the SAIP alone, versus 42.2 µg/m³ combined). It would be prudent for the null impact of the non-SAIP projects to be explicitly stated (as opposed to requiring the reader to compare forecasted air quality concentrations from two different tables) and justified. If none of the concurrent projects involve construction or other emissions equipment, it should be sufficiently simple to document that fact. As it is, the reader is left with only elementary project descriptions and tabulated null impacts.

Response: The cumulative air quality impact analysis is documented in Section 4.3.7 of the SAIP Draft EIR. The analysis of the combined impacts of the SAIP and other concurrent projects incorporated emissions data from three other LAX projects that would be under construction at the same time as the SAIP: the Tom Bradley International Terminal (TBIT) Improvements and Baggage Screening Facilities, the Terminals 1-8 In-Line Baggage System, and the Southside Airfield Improvement Program Remote Boarding Facilities Modifications project. Pollutant concentrations associated with construction of the SAIP and other concurrent projects would not be substantially different than concentrations for the SAIP project, since ongoing airport operations (aircraft, GSE, vehicular movements, and stationary sources) were the largest contributor to the modeled pollutant concentration. Exhibit 4.3-5 in the SAIP Draft EIR shows that the highest pollutant concentrations occurred near the eastern property line in between the north and south airfield complex.

The commentor notes that the annual average PM10 concentrations are lower in Table 4.3-15 than in Table 4.3-14. This is a typographical error and does not affect the significance conclusions reached in the Draft EIR. In Table 4.3-15 and on Exhibit 4.3-5 the annual PM10 concentration should be listed as 42.2 (µg/m³). In response, page IV-120 and Exhibit 4.3-5 have been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

Information regarding emissions associated with the non-SAIP projects has been added to page IV-120 of the Draft EIR. Please see Chapter IV, Corrections and Additions to the Draft EIR.

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Comment: G. APU Assumptions

APU emissions, particularly as related to PM, are discussed extensively in previous Master Plan comment letters, and those comments apply equally to the SAIP. However, Tables K-10 and K-11 of DEIR Appendix K respectively list the APU assumptions used for the 2003 and 2005 air quality analyses. A cursory comparison of the tables indicates differences between 2003 and 2005 APU assumptions, even though the DEIR implies that such differences should net exist. For example, in Table K-10 (1 of 10), the following APU assumptions are indicated for 2003:

[Please see original document for table.]

In Table K-11 (1 of 10), the corresponding APU assumptions indicated for 2005 are:

[Please see original document for table.]

The DEIR should clarify these and any other inconsistencies.

Response: Section 4.3.2.2.2 of the SAIP Draft EIR discusses emissions from Ground Support Equipment and Auxiliary Power Units (APU). Additional technical data regarding APU operating characteristics is provided in Appendix K of the SAIP Draft EIR.

As discussed in Section 2.3.1 of Appendix S-E of the LAX Master Plan Final EIR, LAWA is committed to providing 400 Hertz electrical ground power and preconditioned air systems at all passenger gates in the near future. It is anticipated that average APU operating times per LTO will continue to decrease as more gates are installed with preconditioned air and electric power and airlines continue to look for cost-cutting measures. Assumptions regarding the use of centralized gate power and preconditioned air systems, which reduce APU operating times, were factored into the air quality analysis conducted for the Draft EIR for the SAIP.

The commentor correctly observes that APU operating minutes per LTO were assumed to be lower in 2005 than in 2003. Lower APU operating times were used in the Project (2005) analysis compared to the 2003 Baseline analysis to reflect the continuing installation of preconditioned air and electric power at aircraft gates as explained above. The SAIP Draft EIR does not imply that differences in APU operating times should not exist.

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Comment: H. Cumulative PM Impacts Do Not Meet CAAQS/NAAQS

As with the LAX Master Plan, cumulative PM-10 impacts result in continuing violations of the CAAQS. CAAQS violations occur even with all indicated mitigation measures in place. Additionally, violations of both the CAAQS and the NAAQS occur for mitigated PM-2.5. This is particularly important since PM-2.5 impacts were not estimated in the Master Plan FEIR/FEIS. Nevertheless, the significance of SAIP PM-2.5 impacts clearly demonstrates that the PM-2.5 impacts of the overarching Master Plan would be equally (if not more) significant.

Response: Section 4.3.9 of the SAIP Draft EIR describes impacts to air quality that will be potentially significant and unavoidable. As discussed on page IV-121, concentrations of PM2.5 from on-airport and construction-related sources when added to background ambient concentrations would exceed the California and Federal ambient air quality standards (AAQS). Based on the results of the air quality analyses conducted for the SAIP it is anticipated that cumulative PM2.5 concentrations (i.e. combined concentrations of the SAIP, reasonably foreseeable projects, and background concentrations) would also exceed the California and Federal AAQS.

The commentor is correct that PM2.5 was not evaluated in the LAX Master Plan Final EIR. As discussed in Response to Comment FAL00003-9 on the LAX Master Plan Final EIS, SCAQMD was contacted during the development of the air quality modeling protocol for the LAX Master Plan EIR/EIS (see Attachment A of Technical Report 4, Air Quality Technical Report of the LAX Master Plan Final EIR) and again on December 17, 2003, prior to completion of the LAX Master Plan Final EIR to determine if they were expecting an analysis of PM2.5 in the evaluation. SCAQMD confirmed that it would be premature to fully analyze PM2.5 in the LAX Master Plan Final EIR since the SCAQMD had not yet developed significance thresholds or methodology guidance regarding PM2.5 analysis. In March 2004, SCAQMD indicated that analysis of PM2.5 would be expected for project-level CEQA documents; hence PM2.5 was considered in the SAIP Draft EIR.

The commentors assertion regarding the significance of PM2.5 impacts associated with the "overarching Master Plan" pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR and does not raise issues specific to the SAIP or the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

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Comment: II THE SAIP WILL HAVE SIGNIFICANT INCREASED IMPACTS ON HYDROLOGY AND WATER QUALITY WHICH MUST BE MITIGATED.⁶

A. The Certified Master Plan Final EIR Presented Misleading Conclusions Concerning Hydrologic Impacts on Dominguez Channel

The 2004 LAX Master Plan Final EIR indicated that impacts on Dominguez Channel would be significantly lower, for all four studied alternatives, than now presented in the SAIP DEIR. The FEIR indicated that the Master Plan reduction in permeable area in the Dominguez Channel would range from a high of 7% (for Alternative C) to a low of 3% for the proposed Alternative D. Even at these levels, the FEIR acknowledged potentially significant adverse cumulative impacts on regional drainage facilities.

Ironically, the DEIR for the newly modified SAIP would significantly increase the impact on Dominguez Channel relative to Findings contained in the FEIR. Whereas the Final Master Plan EIR forecast a 3% reduction in permeable area for the preferred Alternative D, the SAIP would reduce permeable area by an estimated 14%. The new estimate represents twice the level of the highest-impact alternative previously studied, and more than triple the impact of the preferred Alternative D as presented in the Master Plan EIR. This is a direct contravention of CEQA, which requires that Lead Agencies utilize project alternatives to minimize or avoid significant impacts.

6 See Attachment 2, A. C. Lazzaretto & Associates Preliminary Review of Hydrology, Water Quality and Human Health Risk Assessments Provided in the SAIP Draft EIR

Response: The comment confuses two separate calculations. It is true that the SAIP would result in a 14% increase in impervious area within the Dominguez Channel watershed of the SAIP project area. The actual increase in impervious area would be 12.21 acres (SAIP Draft EIR Table 4.1-2). However, this is not comparable to the 3% increase in impervious surfaces within the Dominguez Channel watershed calculated for the LAX Master Plan Final EIR. The analysis conducted for the LAX Master Plan Final EIR analyzed changes in impervious surfaces within the Hydrology and Water Quality Study Area (HWQSA), an area of greater than 3,000 acres encompassing the entire airport as well as properties being considered for acquisition. That analysis identified an increase in impervious area of 39 acres, within a watershed 1,460 acres in size (LAX Master Plan Final EIR, Table 4.7-5). In contrast, the SAIP Draft EIR calculated changes in impervious area for the much smaller SAIP project area. The SAIP-related increase of 12.21 acres is within and well below the total of 39 acres calculated for the LAX Master Plan. Moreover, the increase in impervious surface associated with the SAIP is less than 1% of the 1,460 acres tributary to Dominguez Channel under baseline conditions.

Potential impacts associated with the increase in impervious surfaces are addressed in Section 4.1 of the SAIP Draft EIR. As stated in the SAIP Draft EIR, project-related impacts associated with hydrology and water quality would be less than significant. It should be noted, however, that the SAIP may contribute to a potentially significant cumulative impact related to drainage facilities within the Dominguez Channel Watershed.

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Comment: B. The Significant Adverse Direct and Cumulative Impacts on Dominguez Channel Can and Should be Mitigated by LAWA

The DEIR notes, in §4.1.7, "There are currently capacity constraints within the Dominguez Channel Watershed, especially at the point where the Dominguez subbasin drains into a Los Angeles County conveyance facility that was designed for a 10-year storm event. Although the SAIP would be designed to address flooding within the boundaries of the project study area, increased surface water runoff and peak flows resulting from the project, in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by the regional drainage infrastructure serving the Dominguez Channel watershed. " The DEIR then finds, in §4.1.9, that

implementation of Mitigation Measure HWQ-1 under the LAX Master Plan' would mitigate this impact but, "...because this mitigation measure is not fully within the jurisdiction of the lead agency to implement, the implementation of the mitigation cannot be guaranteed and therefore, the cumulative impact is considered to be potentially significant and unavoidable. "

A review of the recommended drainage and water quality improvements provided in the Concept Drainage Plan provided in Appendix A indicates that LAWA has not fulfilled its commitment to identify "the overall improvements necessary to provide adequate drainage capacity to prevent flooding." Though significantly weighted toward the water quality review (compared with the drainage plan components), the CDP fails to take advantage of one obvious means of providing enhanced flood protection: the utilization of its water quality detention facilities to provide sustained storm water retention. Whether through this and/or other means, the County requests that LAWA provide on-site storm water retention facilities with capacity sufficient to contain all flows that would exceed the residual (unused) capacity of the downgradient storm drain system.

7 Mitigation Measure HWQ-1 is as follows: "MM-HWQ-1. Upgrade Regional Drainage Facilities. This mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development. " Commitment HWQ-1 is as follows: "HWQ-1. Concept Drainage Plan. This LAX Master Plan commitment requires the preparation of a Conceptual Drainage Plan (CDP) that identifies the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The CDP will provide the basis and specifications by which detailed drainage improvement plans shall be designed in conjunction with site engineering specific to each LAX Master Plan project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water. In accordance with this commitment, LAWA will prepare SUSMPs for individual LAX Master Plan projects. The overall result of LAX Master Plan Commitment HWQ-1 will be a drainage infrastructure that provides adequate drainage capacity to prevent flooding with the potential to harm people or damage property and to control peak flow discharges, and that incorporates BMPs to minimize the effect of airport operations on surface water quality and prevent a net increase of pollutant loads to receiving water bodies."

Response: The comment suggests taking advantage of storm water quality detention basins to provide sustained storm water retention. Within the southeast portion of the project area, storm water quality improvements are proposed to be provided through a combination of bioswales with retention and a storm water treatment system. LAWA has examined the potential for providing additional on-site retention of SAIP-related flows tributary to the off-site storm drain system in the Dominguez Channel Watershed as the comment suggests, and has determined that this would not be feasible. Areas west of Aviation Boulevard are generally already occupied with buildings and service roads or are subject to land use restrictions by FAA's Airport Design Standards due to their proximity to the runways. Airport property located east of Aviation Boulevard is planned for an Intermodal Transit Center, Automated People Mover, interior airport roads, and parking. Therefore, the SAIP EIR conservatively finds that additional on-site detention of SAIP-related drainage is not feasible and that the project may contribute to a potentially significant cumulative impact within the Dominguez Channel Watershed. LAWA will cooperate closely with the City of Los Angeles Department of Public Works, Bureau of Engineering, and the County of Los Angeles Department of Public Works, in accordance with mitigation measure MM-HWQ-1, to develop solutions to address regional drainage needs.

Please also see Topical Response TR-SAIP-GEN-2 for a general discussion of cumulative hydrology/water quality impacts, particularly with respect to off-site impacts to the Dominguez Channel Watershed.

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Comment: C. The SAIP Project May Impact Groundwater Resources

LAX is located just north of one of three critical seawater barriers (the West Coast Basin Barrier) that prevent seawater intrusion into the Central and West Coast Basin groundwater resources. The barriers are operated by the Los Angeles County Department of Public Works (LADPW), and the water replenishment supplies are purchased and supplied by the Water Replenishment District (WRD). The County requests that LAWA evaluate the extent to which reduced permeable land area may impact natural basin replenishment in this critical area. The County also requests that LAWA coordinate with LADPW and WRD to determine whether the expanded detention basins (see Item B. above) may be designed and located to enhance groundwater management controls.

Response: The LAX Master Plan Final EIR previously evaluated the impact of LAX Master Plan on surface recharge within the Hydrology and Water Quality Study Area (HWQSA) and the impact was determined to be less than significant (see Sections 4.7.6.5 and 4.7.7.3 of the LAX Master Plan Final EIR). Thus, no further analysis is required regarding surface recharge in the SAIP Draft EIR.

As discussed on page 4-781 in Section 4.7.6.5 of the LAX Master Plan Final EIR, with implementation of the LAX Master Plan, in 2015, the volume of surface recharge within the HWQSA would decrease by approximately 40 acre-feet/year to 131 acre-feet compared to baseline conditions. When compared to the No Action/No Project Alternative, the volume of recharge within the HWQSA would decrease by 23 acre-feet/year. The reduction of surface water recharge would not substantially change groundwater storage or groundwater elevations beneath the HWQSA as compared to baseline conditions. Moreover, groundwater production would not be affected. Therefore, the impact of the projected reduction in the volume of surface water recharge would be less than significant.

Additionally, as discussed on page IV-27 in Section 4.1.6.2.1 of the SAIP Draft EIR, infiltration is selected as a treatment Best Management Practice (BMP) and incorporated into the project design. This BMP would retain surface runoff and allow for percolation to groundwater. Thus, incorporation of treatment BMPs would further reduce the already less than significant impact of decreased surface recharge due to construction of the SAIP project.

SAIP-AL00004 - 16

Comment: III. THE DEIR DOES NOT ADEQUATELY DISCLOSE THE INCREASED ADVERSE HUMAN HEALTH IMPACTS OF SAIP CONSTRUCTION AND PROVIDES NO MITIGATION FOR THOSE INCREASED HUMAN HEALTH IMPACTS.

A. The Human Health Risk Assessment Must Show the Geographic Distribution of Emissions and Adverse Health Effects.

In order to fully disclose impacts associated with air pollutant and TAC emissions, the EIR needs to show the geographic distribution of pollutants and resulting health risks. This is routinely done by graphically depicting isopleths of pollutant concentrations (and the numerical values of the cancer and non-cancer health risks) on a map. Meaningful analysis of project impacts, the distribution of impacts, and the focus of mitigation to reduce those impacts is greatly impeded by not disclosing the geographic distribution of pollutants and resulting health risks. For example, if the geographic distribution of pollutants and health risk was over the ocean or primarily over industrial land uses, the adverse health risk would be substantially lower than if the geographic distribution of pollutants was over residential land uses and schools.

Response: The LAX Master Plan Final EIR provides isopleths of cancer risks and non-cancer hazards on maps of the airport and surrounding communities (LAX Master Plan Final EIR, Section 4.24.1, Human Health Risk Assessment). An isopleth is a line connecting locations where risks are predicted to be equal and illustrates the geographic extent associated with a particular risk or hazard. The basic patterns of cancer risks and non-cancer hazards presented on these maps would be the same for the SAIP, since they are based on the same meteorological conditions measured at the airport. Geographic presentation of risks and hazards is not mandated by guidance or policies of agencies such as the South Coast Air Quality Management District (SCAQMD) or California Environmental Protection Agency (CalEPA). However, such geographic information was provided in the Final EIR

to ensure full disclosure of any impacts and to address public concerns about impacts in their own communities.

The SAIP Draft EIR followed SCAQMD and CalEPA guidance and presented results for a hypothetical maximally exposed individual (MEI) that lived or worked at the LAX fence line. Since the basic pattern of risks and hazards was previously presented, only the MEI information was necessary to show the relative magnitude of potential human health impacts. The SAIP Draft EIR is consistent with applicable guidance and complies with CEQA requirements. Accordingly, geographic presentation of risks is not essential to full disclosure of health risks associated with the SAIP.

SAIP-AL00004 - 17

Comment: B. The DEIR Must Fully Disclose Chronic & Acute Non-Cancer Health Effects.

CEQA requires disclosure of impacts in layman's terms. While the DEIR quantitatively expresses chronic and acute non-cancer risks as a measure of the hazards index, it does not describe those risks. As an example, prolonged exposure to fine particulates results in increased respiratory symptoms and disease such as asthma, decrease lung function especially in children, alterations in lung tissue structure, respiratory tract defense mechanisms, and premature death of individuals subjected to chronic exposure of high concentrations of fine particulates. CEQA and recent case law [Bakersfield Citizens for Local Control v. City of Bakersfield, 124 Cal. App. 4th 1184 (2004)] requires that EIR air quality assessments not only quantify but also describe the impacts in terms understandable by the public at large.

Response: The risk analysis for the SAIP followed the same basic methodology and assumptions as the analysis performed for the LAX Master Plan Final EIR. Chronic and acute non-cancer hazards for the SAIP, like those for the Master Plan, are due to potential exposure to acrolein. As described in the LAX Master Plan Final EIR (Section 4.24.1.1), possible effects on people exposed to this toxic air pollutant are limited to mild irritation of eyes and mucous membranes. More serious effects on health are not anticipated at the low concentrations predicted in the air near LAX. In response to this comment, page IV-137 of the Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AL00004 - 18

Comment: C. The Communities to the East of LAX will be Disproportionately Impacted by SAIP Health Risks.

A review of the SAIP project description and the alignment of aircraft take-off and landing patterns indicates that the health risk impacts associated with the project will primarily affect areas located to the east of the runways. Commentors are concerned about the potential inequity of this impact, and again requests that the EIR depict the geographic distribution of pollutants and resulting health risks to adequately inform decision makers of project impacts.

Response: In accordance with the requirements of CEQA, the SAIP Draft EIR conservatively identifies health risks and hazards associated with construction and operation of the proposed Project, discloses whether such impacts will be significant, and discusses mitigation measures for impacts identified as significant. CEQA does not require an evaluation of the equity or inequity of a project's impacts on specific populations. Please see Response to Comment SAIP-AL00004-19 regarding the analysis of environmental justice impacts in the SAIP Draft EIR and Response to Comment SAIP-AL00004-16 concerning geographic representation of risks.

SAIP-AL00004 - 19

Comment: D. The DEIR Fails to Disclose Environmental Justice Impacts.

In 1999, Senate Bill 115 was passed making environmental justice a requirement of CEQA (Public Resources Code §§ 72000-72001). The analysis is intended to determine whether minority and low-income communities are unfairly burdened by project impacts, with the goal of using mitigation measures to create a level playing field. Despite this requirement, the DEIR did not include an analysis of impacts on minority and low-income communities to determine whether they are unfairly burdened by project impacts, particularly those associated with Human Health Risks. Commentors again request that LAWA utilize the HHRA to quantify environmental justice impacts, including a detailed map showing the geographic distribution of health risks.

Response: As described in Section 4.4.3 (subsection 4.4.3.1) of the LAX Master Plan Final EIR, although the provisions of Senate Bill 115 (which added Section 65040.12 to the Government Code) and Public Resources Code sections 71110-71116 establish environmental justice as an aspect of state law and designate the California Environmental Protection Agency (CalEPA) as the public agency responsible for ensuring the fair treatment of minority and/or low-income populations in the design and implementation of the state's programs, policies, and activities, there is currently no requirement for addressing environmental justice under CEQA. Therefore, an environmental justice analysis is not a requirement of this Draft EIR. However, in recognition of environmental justice principles and policies under state law, Section 4.4.3 of the LAX Master Plan Final EIR did address potential impacts on minority and/or low-income populations as part of that document's CEQA analysis. That analysis evaluated human health risk for minority and/or low-income populations due to operation of the Master Plan, which included the completion of the South Airfield improvements. Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR.

In addition, as described in Topical Response TR-SAIP-HRA-1, LAX Master Plan mitigation measures and Master Plan Commitments that address human health risks would be applicable to the SAIP and would benefit minority and low-income communities. Please see Response to Comment SAIP-AL00004-16 regarding the geographic distribution of health risks.

SAIP-AL00004 - 20

Comment: E. LAWA Must Provide Mitigation for Health Risks to the Maximum Extent Feasible.

DEIR Section 4.4 [p. IV-122] "Human Health Risk Assessment" states, in part, that "[b]ecause project level details were not available regarding construction phasing, the program-level LAX Master Plan Final EIR did not address health risks associated with construction activities of any individual Master Plan components, including the SAIP, nor did it consider specific impacts associated with changes in operations during construction, such as those that would occur as a result of the closure of Runway 7R-25L during construction of the SAIP..." However, the DEIR states elsewhere that LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program) have been identified to mitigate the anticipated short-term construction-related impacts. [p. IV-34] Where additional mitigation is required to address impacts specific to the SAIP, new mitigation measures are evaluated and proposed. [p. I-5]. See also p. IV-5 ["...new mitigation measures are separately identified after the various impact conclusions and proposed for adoption as conditions of approval."]

Although the DEIR states that SAIP human health impacts are greater than previously reported for the LAX Master Plan [p. I-11], it also states that "[n]o additional project specific mitigation measures are recommended in connection with the SAIP" [p. I-12]

Because health risks dramatically and permanently diminish the quality of life (including premature death) of the impacted population, LAWA must commit to mitigating these impacts to the maximum extent feasible. Mitigation should include the incorporation, as part of Phase 1 improvements, of electrical support equipment or ultra-low emissions technology to reduce health risks. Mitigation should also include incentives for reduced aircraft emissions. The SAIP DEIR mitigation measures must also include a funding mechanism to pay for the increased cost to the County of health care services incurred as a result of the increased health risks associated with the proposed project.

Response: The commentor is correct that the SAIP Draft EIR identifies greater potential incremental health risk impacts for the SAIP in 2005 than did the LAX Master Plan Final EIR for Alternative D in 2013 or 2015. Please see Topical Response TR-SAIP-HRA-1 for an explanation of this conclusion. Please also see Response to Comment SAIP-AL00006-23. The mitigation measures for health risk impacts from the LAX Master Plan Final EIR, namely MM-AQ-1, MM-AQ-2, MM-AQ-3, and MM-AQ-4, include all feasible measures to reduce emissions of air pollutants, including toxic air pollutants from LAX. These measures address airport operations, ground transportation, and construction of Master Plan improvements, including the SAIP. LAWA is currently finalizing the first two elements (MM-AQ-1 and MM-AQ-2) of the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP). The purpose of the MPAQ is to ensure that all the feasible air quality mitigation measures are identified and implemented to reduce the air quality impacts of the approved LAX Master Plan at least to the levels noted in the Final EIR for the LAX Master Plan and that these levels are maintained during and following project implementation. The first two elements (MM-AQ-1 and MM-AQ-2) of the MPAQ will be completed prior to the implementation of the SAIP, as noted in the MMRP. There are no additional, feasible measures to address the potential health risk impacts associated with the SAIP. Please also see Topical Response TR-SAIP-HRA-1 regarding mitigation of health risk impacts and Topical Response TR-SAIP-GEN-3 regarding implementation of all the proposed SAIP mitigation measures.

With respect to mitigation for Phase I improvements, it should be noted that MM-AQ-2, Construction-Related Mitigation Measure, is currently being developed in consultation with FAA, USEPA, CARB, and SCAQMD and will be finalized prior to the initiation of the SAIP. As outlined in the MMRP for the LAX Master Plan Final EIR, elements of MM-AQ-2 include, among other things, specifying a combination of line power and portable generators using cleaner fuel and exhaust emission controls in place of typical diesel generators to produce electricity at construction sites as well as specifying use of mobile construction equipment using a combination of cleaner fuels and exhaust emission controls in place of typical diesel-powered mobile construction equipment. Regarding incentives for reduced aircraft emissions, it should be further noted that the approved LAX Master Plan incorporates various design features which will inherently lead to reduced aircraft emissions compared to those from the current airport layout. With respect to the Master Plan in general, some of these features include improved air traffic control and ground traffic control systems for efficiency of airfield operations to reduce ground and airborne delays as well as improved scheduling of flights to avoid airport congestion and aircraft queuing. Please see Section 2, Purpose and Need for the Proposed Action, of the LAX Master Plan Final EIR. With respect to the SAIP in particular, specific features include a new center parallel taxiway which will reduce airfield delays along with emissions and allow New Large Aircraft to operate with little or no disruption to other aircraft also reducing airfield delays and emissions. (It should be noted that, as explained in Topical Response TR-SAIP-PD-1, the existing runways can already accommodate NLAs. The proposed runway improvements would not facilitate NLA, but would improve efficiencies associated with their operation.) If feasible mitigation elements to reduce emissions from aircraft are identified, they will be incorporated into MM-AQ-4, Operations-Related Mitigation Measure, currently under development.

Regarding the comment that the SAIP Draft EIR include a funding mechanism to pay for costs to the County of health care services, increased health care costs are not an environmental impact that requires consideration under CEQA. Moreover, such a measure would not mitigate the significant, adverse environmental impacts of the project, namely, increased incremental cancer risks and non-cancer health hazards. Finally, although the health risk assessment identified the theoretical health risks associated with the project, as indicated in Appendix L, Section L.5, the human health risk assessment included a number of assumptions that resulted in a highly conservative analysis. Therefore, the reported risks may be much higher than actual risks. Because of this, as well as other factors, it is not possible to quantify the actual number of individuals that will realize these adverse effects, or the costs associated with providing them with health care. For these reasons, the measure proposed by the commentor is not considered to be an effective or feasible measure under CEQA.

SAIP-AL00004 - 21

Comment: IV. THE DEIR FAILS TO ADEQUATELY ANALYZE THE CUMULATIVE IMPACTS OF SAIP CONSTRUCTION.

The DEIR addresses six categories of environmental resources: (1) hydrology/water quality; (2) ground transportation; (3) air quality; (4) noise; (5) biotic communities; and (6) human health risks, which are potentially subject to construction related impacts. "In general, with the exception of hydrology/water quality, all effects related to the operation of the airport following completion of the SAIP are considered to be fully addressed in the LAX Master Plan Final EIR and are not evaluated further in this document." [DEIR, p. IV-2] "The SAIP is consistent with the entitlements approved for the LAX Master Plan, and thus, the cumulative effect of this project has been adequately addressed in the LAX Master Plan EIR." [DEIR, p. IV- 5] The cumulative impacts of the SAIP project could not have been adequately addressed in the FEIR where the impacts of SAIP construction were not fully identified and analyzed until preparation of the DEIR.

Moreover, the DEIR fails to analyze the cumulative impacts of overlapping Alternative D Phase I projects [DEIR, p. III-10], concurrent stand-alone LAX construction projects [i.e., non- Master Plan construction activities [DEIR, p. III-11], and LAX Developments Projects Independent of the Master Plan. The DEIR does not provide construction schedules for those other projects, therefore it cannot be determined what the cumulative impacts of SAIP construction and other concurrent projects will be.

Response: Please see Topical Response TR-SAIP-GEN-2 regarding the analysis of cumulative impacts in the Draft EIR. Cumulative impacts are discussed in Sections 4.1.7, 4.2.7, 4.3.7, 4.4.7, 4.5.7, and 4.6.7 of the Draft EIR for hydrology and water quality, off-airport surface transportation, air quality, human health risk, noise, and biotic communities, respectively. The cumulative impacts analysis addressed other LAX Master Plan development, LAX Development Projects Independent of the Master Plan, and Non-LAX Planned Development, as described in Section 3.5 of the Draft EIR. Each of the cumulative impact analyses considers the on- and off-airport projects appropriate to that impact category, or in other words related projects that along with SAIP construction-related activities presented the potential for a resulting significant cumulative impact. The referenced Topical Response further describes the cumulative analyses undertaken for each of the six categories. For the other categories discussed in Section 5 of the SAIP EIR, the potential cumulative impacts were adequately addressed and disclosed for each of the various categories in subsections of Chapter 4 of the LAX Master Plan Final EIR.

As described in Topical Response TR-SAIP-GEN-2, the Draft EIR does in fact assess and document the potential for cumulative impacts associated with the construction of the SAIP and other on- and off-airport projects for each of the six categories listed above to the extent that planning data and schedules for those projects are available. The latest schedules for the on-airport projects considered in the cumulative impact analyses have been provided in Topical Response TR-SAIP-GEN-2. LAWA and the EIR consultants undertook considerable efforts to identify non-LAX development projects that could potentially be underway concurrent with the SAIP and to identify the schedules of those projects. A list of 110 such projects is provided in Table 3-1 of the SAIP Draft EIR. The list and the anticipated project schedules were developed on the basis of information provided by LADOT and in consultation with local jurisdictions.

The referenced Topical Response further describes the cumulative analyses undertaken for each of the six categories where further evaluation was required. For the other categories, the potential cumulative impacts were adequately addressed and disclosed for each of the various categories in subsections of Chapter 4 of the LAX Master Plan Final EIR.

SAIP-AL00004 - 22

Comment: V. THE DEIR UNDERSTATES THE EXTENT AND DURATION OF SAIP CONSTRUCTION IMPACTS ON OFF-AIRPORT SURFACE TRANSPORTATION.

The DEIR cites only one intersection, at Imperial Highway and the I-105 Ramps east of Aviation Boulevard, that would potentially be significantly impacted by traffic generated during construction

of the SAIP [DEIR, p. I-7]. Given the extent and duration of the SAIP construction project, it is highly improbable that only one intersection in the LAX area will be impacted by construction traffic. Similarly, the DEIR states that "project-related impacts associated with the SAIP would be short term, on the order of one month in duration [emphasis added] [DEIR, p. I- 8], yet, elsewhere, the DEIR states that SAIP construction will require eight [DEIR, pp. I-13, II- 15, II-17] to twelve [DEIR, p. IV-122] months. SAIP construction traffic impacts should be analyzed throughout the entire SAIP construction period.

Response: The commentor refers to the summary statement provided in Section 1.3.2.1 of the SAIP Draft EIR that briefly describes a potentially significant but temporary impact at the intersection of Imperial Highway and the I-105 ramps east of Aviation Boulevard. The detailed summary of the traffic analyses is found in Section 4.2 with supporting technical data and analysis provided in Appendices G through J.

The traffic analyses for the EIR was prepared using a conservative approach that is intended to identify potential traffic-related impacts resulting from the construction of the SAIP over the entire course of construction. This was accomplished by estimating and analyzing the potential peak traffic activity that would be generated on the study area roadways during the construction of the SAIP. The peak month for the traffic analyses was determined to be the month when the total traffic from construction activity would be at peak levels based on a review of monthly construction activity schedules describing daily employment activity over the course of construction. For purposes of the traffic analysis, the peak month of construction traffic was combined with peak month for Airport-related traffic (August) to provide a conservative estimate of traffic volumes using the study area.

Furthermore, consistent with the requirements set forth in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP), construction truck deliveries and construction employee shifts shall be scheduled by the SAIP construction contractor to avoid the peak periods of 7:00 to 9:00 a.m. and 4:30 to 6:30 p.m. Because the SAIP would not generate traffic during the peak hours of the regional roadway system, the number of potential impacts to study area intersections would be minimal during these periods of lower traffic activity. As shown on Table 4.2-13 of Section 4.2.6.3 of the SAIP Draft EIR, an estimated fifteen of the nineteen study area intersections are estimated to operate at Level of Service C or better during the peak hours analyzed (with nine of these intersections operating at Level of Service A during the hours analyzed). As described previously, it is anticipated that these conditions would represent the "worst case" condition during the "non-commute" peak hours analyzed for SAIP. The regional overall peak hours were not analyzed for the SAIP because the SAIP will not generate traffic during these periods.

The estimate that the duration of this potential impact would be on the order of one-month in duration is based on a review of the level of activity that would be generated by the SAIP construction project over time. As shown in Exhibit 4.2-6 of Section 4.2.6.3 of the SAIP Draft EIR, it is anticipated that peak construction employee activity would occur over an approximate three-week period culminating in a peak weekly demand of about 1,390 employees. The SAIP traffic analysis was prepared by analyzing the anticipated traffic conditions during the peak construction activity that would likely occur over the course of the project. This represents a worst-case condition as it is shown in the exhibit that peak activity decreases significantly after this initial peak. Although three additional construction peaks are anticipated, the magnitudes of the three additional peaks anticipated are much smaller than the primary peak (67 percent to 77 percent of peak) with short durations lasting from 1 to 3 weeks.

SAIP-AL00004 - 23

Comment: VI. THE AREAS OF KNOWN CONTROVERSY SECTION ADDRESSES OPERATIONS OF THE AIRFIELD FOLLOWING COMPLETION OF THE SAIP. BUT DOES NOT ADDRESS KNOWN CONTROVERSIES DURING SAIP CONSTRUCTION.

The very brief "Areas of Known Controversy" Section [DEIR Section 1.4, p. I-17] states that areas of known controversy "are related primarily to potential aircraft noise exposure in the City of El Segundo related to the approximately 55-foot relocation of Runway 7R-25L to the south. The areas of concern relate to both the relocation of the runway and concern that runway use patterns would change after construction of the SAIP. These concerns are addressed in this DEIR" In that "all

effects related to the operation of the airport following completion of the SAIP are considered to be fully addressed in the LAX Master Plan Final EIR and are not evaluated further in this document." [DEIR, p. IV-2] the DEIR does not address the major area of controversy associated with SAIP construction - the transfer of aircraft operations to the North Airfield Complex and resulting increased noise impacts on schools and residents. "Noise sensitive uses in the County of Los Angeles... and City of Inglewood would be newly exposed to high noise levels and therefore these construction-related impacts would conflict with the respective plan noise element policies." [DEIR, page V-4] During relocation of Runway 7R-25L, there will be no aircraft noise in El Segundo. Aircraft noise will be transferred to the other three runways.

Temporary closure of Runway 7R-25L would redistribute all aircraft operations among the remaining three runways resulting in temporary noise impacts on some public schools located in Inglewood and Los Angeles County.... such aircraft noise would include 11 schools newly exposed to noise of 65 CNEL and higher, 24 schools exposed to noise increases of 1.5 CNEL or more in areas exposed to 65 CNEL and higher, and 6 schools newly exposed to interior noise levels that result in classroom disruption.. These aircraft noise impacts would be temporary (approximately 8 months) and unavoidable for those schools not subject to an existing aviation easement until the relocation of Runway 7L-25R is complete. [DEIR, page V-39]

Approximately half of the operations at the airport are from the South Airfield Complex, including almost all south and east bound traffic, as well as all wide-body departure traffic. The closure of Runway 7R-25L would require that portion of the traffic to be routed to Runway 7L- 25R and the north airfield complex. [DEIR, p. II-15]. See also DEIR, p. II-17 [Runway 7R-25L would be closed for approximately eight months and all aircraft operations would be rerouted and distributed among the south airfield Runway 7L-25R and the two north airfield Runways 6L-24R and 6R-24L.]

Response:

Please see Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP. Section 1.4, "Area of Known Controversy" is intended to identify areas of controversy identified at the time that the EIR was initiated, specifically related to the SAIP. The concern that had been raised to LAWA at that time was that concern raised by the City of El Segundo that the relocation of the runway approximately 55 feet to the south would increase noise levels in El Segundo, because of its location and because of a perception that the SAIP would result in greater use of Runway 7R-25L relative to the other runways after construction than before construction of the project.

LAWA, in preparing the scope of the analysis for the SAIP Draft EIR clearly recognized that the redistribution of aircraft during construction could lead to significant environmental effects, including changes in noise exposure. The SAIP Draft EIR assesses and discloses the potential environmental effects during the estimated 8-month period when Runway 7R-25L would be closed and aircraft operations would be redistributed to the three remaining runways at the airport. The specific effects on aircraft noise are presented in Section 4.5, with additional technical information provided in Appendix M. As stated in Section 1.1.3 of the SAIP Draft EIR, the construction-related impacts, which include the direct impact of construction activities and the indirect impacts that occur during and as a result of construction, are directly assessed and documented in this EIR. The footnote definition of the term 'construction-related' impacts, specifically references "the potential impact on pollutant emissions due to increased aircraft taxi and queue times during construction; and temporary noise impacts from different runway use patterns during construction" as types of indirect impacts associated with and related to construction of the SAIP. The operations-related assessments in Section 4.5 specifically addresses the three-runway operation during the runway closure period and the associated noise impacts.

It should be noted that the commentor quotes numbers of schools newly exposed to various thresholds during the construction period. Some of these figures have been revised, as presented in Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AL00004 - 24

Comment: VII. THE DEIR PROVIDES NO NEW OR ADDITIONAL MITIGATION MEASURES FOR THE INCREASED SAIP CONSTRUCTION IMPACTS.

The DEIR states that "LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program (MMRP) have been identified to mitigate the anticipated short-term construction-related impacts.⁸ [DEIR, p. IV-34] "Where additional mitigation is required to address impacts specific to the SAIP, new mitigation measures are evaluated and proposed. [DEIR, p. I-5] "...new mitigation measures are separately identified after the various impact conclusions and proposed for adoption as conditions of approval." [DEIR, p IV-5]. And yet, the DEIR contains no new mitigation measures for the newly identified, increased SAIP construction impacts. For example:

Noise - "SAIP construction would have no significant noise impacts and no additional mitigation is required." [DEIR, p. I-12]. "Construction traffic would not have a significant noise impact and additional mitigation is not required." [DEIR, p. I-12]. "Potentially significant and unavoidable aircraft noise exposure impacts during SAIP construction would remain [DEIR, p. I-15] and no other feasible measures [i.e. other than LAX Master Plan Commitments and Mitigation Measures] are available to either eliminate or diminish the significant, but temporary aircraft noise impacts. [DEIR, p. I-14]. Other than LAX Master Plan commitments and mitigation measures related to aircraft noise impacts as they relate to schools, no additional mitigation measures are provided. [DEIR Section 5.13.4.2, p. V-39]

Off-Airport Surface Transportation - Section 4.2.1 [DEIR, p. IV-34] - "LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program (MMRP) have been identified to mitigate the anticipated short-term construction-related impacts."

Air Quality - "No additional project specific mitigation measures are recommended in connection with the SAIP." [DEIR, pp. I-10, IV-121, IV-141]

Health Risk Assessment - "No additional project specific mitigation measures are recommended in connection with the SAIP." [DEIR, p. I-12]

The DEIR should include additional mitigation measures for the increased SAIP construction impacts.

⁸ The DEIR incorporates the same mitigation condition as in the LAX Master Plan FEIR - "Mitigation measures and LAX Master Plan commitments are applicable to the extent that the use of airport revenue to fund such measure is permissible under federal law and policies, or the ability of LAWA to develop other state or federal funding sources." [DEIR, p. IV-4, fn. 4]

Response: Please see Topical Responses TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP and TR-SAIP-HRA-1 regarding mitigation of health risk impacts.

The commentor has chosen to focus on impacts where no additional mitigation is recommended. There are other potentially significant impacts of the SAIP where the EIR does recommend additional mitigation, e.g., replacement of habitat and conservation of faunal resources. (See SAIP Draft EIR Section 1.3.6.3.) Two of the impacts the commentor focuses on were determined to be less-than-significant (construction equipment noise and construction traffic noise), thus no mitigation is required for those impacts. For other cases, LAWA did consider the potential for feasible mitigation measures and no additional feasible measures were identified.

During the preparation of the LAX Master Plan and the LAX Master Plan EIR, a wide range of mitigation measures and mitigation techniques were evaluated to reduce the potential for adverse environmental effects. In some cases, measures were established even when a significant environmental impact was not identified. Two types of measures were then identified as part of the LAX Master Plan and the LAX Master Plan EIR. Master Plan Commitments included measures that would not normally be considered mitigation under CEQA because (1) they are actions that are required by law, regulation, or ordinance, or (2) they would serve to reduce impacts that were not considered to be significant in the first place and, therefore, would not require mitigation under

CEQA. The LAX Master Plan EIR and therefore the SAIP EIR assumes that these measures will occur. They are considered to be part of the project and not "after-the-fact" measures. These measures do however serve to minimize potential adverse effects of the project.

The LAX Master Plan EIR also includes mitigation measures to specifically address significant environmental impacts that would occur even after the implementation of the Master Plan Commitments described above. The SAIP is also subject to project-specific mitigation measures that are recommended in the Draft EIR in response to, and as a means to mitigate, potentially significant environmental impacts of the SAIP itself as identified in the SAIP Draft EIR.

As discussed in Sections 4.1.8, 4.2.8, 4.3.8, 4.4.8, 4.5.8, and 4.6.8, the potential for additional mitigation measures were evaluated for potentially significant impacts on hydrology and water quality, off-airport surface transportation, air quality, human health risks, noise, and biotic communities, where such impacts were identified. Because of the exhaustive consideration of mitigation measures considered in the development of the Master Plan Commitments and the LAX Master Plan EIR mitigation measures, it was not possible to identify additional feasible mitigation measures for certain of the impact categories for which potentially significant impacts were identified. Mitigation measure must be feasible in accordance with CEQA Guideline 15126.4. Feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technical factors." (CEQA Guideline 15364.) Therefore, an EIR need not evaluate nor recommend every possible mitigation measure for an impact. Rather, it must consider feasible measure that could reasonably minimize potentially significant adverse impacts. As described in the referenced sections, the SAIP Draft EIR does that.

The commenter specifically refers to the categories of noise, off-airport surface transportation, air quality, and health risks. A number of Master Plan Commitments and LAX Master Plan EIR mitigation measures apply to the potential impacts of each of these categories. The ongoing aircraft noise abatement program will continue in effect and will apply to conditions during the construction period. No additional feasible mitigation measures were identified to address the identified impact during the runway closure period when aircraft operations would be redistributed to the three remaining runways, although potentially significant and unavoidable impacts would be expected. A number of measures to reduce construction-related noise, such as development of a construction noise plan, construction staging, equipment replacement, construction scheduling, and designated construction haul and truck routes will be applicable to the SAIP. No further feasible measures were identified for the SAIP.

For off-airport surface transportation, measures such as the establishment of a ground transportation/construction coordination office, personnel orientation, delivery procedures (including delivery hours), construction employee shift hours, designated haul routes (including maintenance plans), a construction management plan, and designated truck routes, will be part of the SAIP to reduce the effects on traffic patterns during construction. No other measures were found to be feasible for the SAIP, although short-term potentially significant impacts were anticipated for one intersection during certain periods of construction.

For air quality and health risks, a number of measures are identified to reduce overall emissions from the airport and would apply to the SAIP. These include the expansion and revision of the existing air quality mitigation program for the airport, specific construction-related and transportation-related measures, and operations-related measures specifically designed to reduce emissions from ground service equipment used at the airport. Additional measures specifically related to health risks include further analysis to evaluate the contributions of on-airport and off-airport sources to overall concentrations, funding for air filtration at qualifying public schools that have air conditioning, and the exploration of a means to establish a mobile research lab to research and study the upper respiratory impacts that may be directly related to the operation of the airport. No additional feasible mitigation measures were identified for the SAIP.

SAIP-AL00004 - 25

Comment: VIII. THE FEIR SHOULD INCLUDE AN UPDATED REFERENCE TO THE JUNE 21, 2005 VARIANCE.

The DEIR states that "[t]he airport is currently operating under a variance, which became effective on March 21, 2001" [DEIR, p. IV-165] and that operation of the airport after implementation of the SAIP will continue under the variance status and the airfield changes would be reflected in future reporting and future variance requests. [DEIR, Section 2.7.3, p. II-24] The FEIR should include an updated reference to the revised Variance approved by the California Department of Transportation on June 21, 2005.

Response: The comment is correct stating that a new noise variance was issued to LAWA for LAX in June 2005. As such, page IV-165 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. The new variance does not affect any of the noise analyses or other noise discussion presented in the text.

SAIP-AL00004 - 26

Comment: Introduction: I have reviewed the air quality portions of the August 2005 Draft Environmental Impact Report (DEIR) for the LAX South Airfield Improvement Project (SAIP). Since the DEIR effectively relies on the air quality analyses conducted for the larger LAX Master Plan,¹ of which the SAIP is a component project, the comments previously submitted for the Master Plan FEIR/FEIS are equally applicable to the estimated air quality impacts of the SAIP. For convenience, those comments will not be restated, but letters of comment dated June 6, 2004, February 16, 2005, and February 17, 2005 are hereby incorporated by reference and should be viewed as integral components of this comment letter.²

While all additional comments that follow will focus primarily on new material presented in the DEIR, it is important to note that the DEIR explicitly claims to be a "capacity neutral" project, in that it will neither increase nor decrease the operating capacity of LAX.³ While the SAIP is only a single component of the more expansive Master Plan improvements, and, as such, does not provide the full capacity enhancements associated with the larger plan, it is critical to recognize that the SAIP does provide for additional airside capacity at LAX and it is only the gate constraints that are assumed for the complete set of planned LAX improvements that allow a capacity neutral assumption. By itself, the SAIP does increase capacity.

1 As presented in an April 2004 Final Environmental Impact Report (FEIR) and a January 2005 Final Environmental Impact Statement (FEIS).

2 June 6, 2004 letter in response to the LAX Master Plan FEIR. February 16, 2005 letter in response to the LAX Master Plan FEIS. February 17, 2005 letter to Mr. David B. Kessler of the Federal Aviation Administration in response to the LAX Master Plan FEIS.

3 See for example, Section 2.5 of the DEIR, which explicitly states that "When the SAIP is completed in 2008, LAX's practical capacity will continue to be approximately the same."

Response: The first portion of this comment pertains to the LAX Master Plan Final EIR/EIS and incorporates by reference comments on that document. In accordance with federal and state requirements, written responses were prepared for all comments received during the public review periods for the LAX Master Plan Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, written responses were prepared for all comments received during the public review period for the LAX Master Plan Final EIS. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00022, AL00036, SAL00004, SAL00010, SAL00013, and SAL00014 included in Part II of the LAX Master Plan Final EIR, and FAL00001 and FAL00002 included in FAA's Record of Decision on the LAX Master Plan. Based on the fact that responses have already been provided in accordance with federal and state requirements for the comments on the LAX Master Plan EIS/EIR that the commentor incorporates by reference, and the fact that this

comment, as well as the comments incorporated by reference, are not specific to the SAIP Draft EIR, no further response is required.

The remainder of this comment is essentially the same as comment SAIP-AL00004-3; please refer to Response to Comment SAIP-AL00004-3. Please also see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-AL00004 - 27

Comment: It is my view that the assumed gate constraints are optimistic and represent the linchpin to the entire Master Plan impact analysis. If the assumed constraints are violated (as is almost assuredly going to happen), the entire LAX impact analysis (including the air quality portions thereof) is inadequate (with impacts being substantially understated). The gate constraint assumption is equally critical to the air quality impact analysis for the SAIP DEIR. If the gate constraints are presumed to be effective, as is the case in the SAIP DEIR, then the only additional impacts associated with the actual implementation of the SAIP are limited to the specific impacts associated with construction equipment (as opposed to the construction impacts plus the operational impacts associated with added airside capacity). Emissions associated with aircraft, passenger, and airport facility operations are estimated using the methodologies and data assumed in the Master Plan FEIR/FEIS, so that there is little additional information on these sources in the SAIP DEIR. As a result, the additional comments that follow are related to the estimated construction emissions impacts and, where appropriate, the aggregation of those impacts with other airport emissions.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-4; please refer to Response to Comment SAIP-AL00004-4. The comment pertains to the overall LAX Master Plan and the LAX Master Plan EIS/EIR, and does not raise environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-AL00004 - 28

Comment: PM-2.5 Exceedances: It is noteworthy that PM-2.5 emission estimates are included in the DEIR. PM-2.5 emissions were not considered in the Master Plan impact analysis, but just as exceedances of both the PM-2.5 CAAQS and NAAQS are demonstrated in the SAIP DEIR, corresponding exceedances would have been demonstrated for the overall Master Plan.

Moreover, the exceedances occur under both unmitigated and mitigated conditions, as well as under emissions estimation methodologies that are likely to significantly underestimate actual PM emission rates (as explained in detail in the cited reference letters).

Response: The content of this comment is essentially the same as comment SAIP-AL00004-5; please refer to Response to Comment SAIP-AL00004-5.

SAIP-AL00004 - 29

Comment: Offroad Equipment Emission Factors: The DEIR indicates that emission factors for offroad construction equipment were taken from the California Air Resources Board's (CARB's) OFFROAD model. This is the appropriate source, but the data presented in Table K-2 of Appendix K of the DEIR imply that the extracted emission factors may not be correct.

Since the SO₂ emission rate is determined on the basis of fuel sulfur content, I will discuss it separately from the emission rates for VOC, CO, NO_x, and PM. If I extract emission rates for these latter four emission species from OFFROAD for model year 2005 equipment, I get rates that are very close (in most cases) to those indicated in Table K-2. However, these rates differ significantly from fleet average emission rates in 2005. In effect, model year 2005 emission rates assume that all equipment is new, while fleet average emission rates properly assume a mix of older and newer

equipment. Unless LAX intends to require that only new equipment can be used in the SAIP construction, it is not appropriate to use new equipment emission rates.

To provide an indication of the potential sensitivity of emission impacts to such an assumption, I compared model year 1995 and 2005 emission rates from the OFFROAD model for three of the equipment types listed in Table K-2. This comparison shows that 1995 emission rates would be on the order of five times higher for VOC, two times higher for CO and NO_x, and three times higher for PM. Thus, a typical 2005 construction vehicle fleet mix would exhibit emission rates significantly higher than those assumed in the DEIR.

For SO₂, the DEIR assumes that all diesel fuel will contain 15 ppmW sulfur beginning in 2005. While this assumption is correct for 2007 and later; CARB currently assumes that 2005 diesel fuel sulfur in the South Coast Air Basin will be 130 ppmW.⁴ Since SO₂ emission rates are directly proportional to fuel sulfur content, this means that actual 2005 SO₂ emissions from construction vehicles (and other diesel equipment) will be approximately nine times higher than estimated in the DEIR.

These problems do not appear to affect that portion of the construction vehicle emissions inventory that is based on onroad emission factors derived from the CARB EMFAC model.

4 See "OFFROAD Modeling Change Technical Memo: Off-Road Exhaust Emissions Inventory Fuel Correction Factors," California Air Resources Board, July 25, 2005.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-6; please refer to Response to Comment SAIP-AL00004-6.

SAIP-AL00004 - 30

Comment: Reverse Thrust Emissions: This issue has of course been covered thoroughly in the cited reference letters, but it is perhaps worth expanding that discussion slightly since the DEIR now formalizes the assertion that reverse thrust emissions are inherently included in the "extremely conservative" takeoff and climbout mode emission estimates.⁵ As in the responses to comments to the Master Plan FEIR/FEIS, where this assertion was originally presented, there are no calculations demonstrating that the "extra" takeoff and climbout time is sufficient to offset reverse thrust operating time, or that emissions in climbout mode are equivalent to ground-level reverse thrust emissions from an ambient air quality standpoint – instead the assertion simply stands alone to be taken as demonstrative fact.

Tables K-8 and K-9 of DEIR Appendix K present the actual assumed takeoff and climbout times for all LAX aircraft. A quick review of these data indicates that the combined time of these two operating modes is generally on the order of 1.5 to 2 minutes. A typical reverse thrust operation is on the order of 15-20 seconds (0.25-0.33 minutes). Therefore, takeoff and climbout times must be overestimated by at least 15-30 percent to adequately incorporate reverse thrust operating time, and substantially more to be "extremely conservative." Accordingly, it would - seem that a supporting demonstration would be in order before an assumption of conservatism is offered as fact.

⁵ The implication of the DEIR is that because takeoff and climbout times are based on maximum aircraft weight, and not all aircraft will be operating at that weight, that the emission rates for these modes are overstated. That may well be true, but the DEIR makes no attempt to quantify the degree to which: (1) actual weight will vary from maximum weight, or (2) the impact this variation has on takeoff and climbout times. Instead, the DEIR simply makes the qualitative assertion that this results in the times being "extremely conservative." (see DEIR page IV-92, footnote 19). As a result, it is not possible to compare reverse thrust times to the asserted "additional" takeoff and climbout times.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-7; please refer to Response to Comment SAIP-AL00004-7.

SAIP-AL00004 - 31

Comment: Background Concentrations: Here also, the cited reference letters provide extensive discussion of concerns associated with the use of the linear rollback method to estimate future background concentrations. There are data presented in the DEIR that provide additional insight into the difficulty associated with this approach. For example, the DEIR presents 1999-2003 data for the monitoring station used to estimate LAX background concentrations. Figure 1 presents a summary of that data for 24-hour PM-10 concentrations, selected for illustrative purposes since PM is the pollutant for which the greatest air quality impacts are predicted. As indicated, a simple linear trend of 1999-2003 data indicates a modest uptrend in local PM-10 measurements. However, based on emission reductions expected in central Los Angeles between 2000 and 2005, the DEIR forecasts the 2005 background concentration to be approximately 30 percent below the trend line forecast.

Since the assumed reduction in background concentrations is the primary reason that airport emissions increases can be accommodated within the limits of the CAAQS/NAAQS (except for PM), it is incumbent on project proponents to demonstrate that linear rollback is reasonable for an emissions source that is on the perimeter of the inventory domain. If inventory reductions cannot be reasonably expected to produce similar air quality impacts throughout the domain, as could be the case at LAX with prevailing winds off the Pacific, then domain-wide emission reductions cannot serve as a reliable basis to estimate future changes in local background concentrations. As demonstrated in Figure 1, inventory reductions for PM in central Los Angeles do not appear to provide accurate future emission forecasts for background PM at LAX. While it would be prudent to conduct substantially more detailed analysis than the simple example illustrated herein before reaching a definitive conclusion, the point is that no such analysis has yet been performed for LAX - yet the entire range of air quality impacts depend directly on the accuracy of background emissions estimates.

Figure 1. 24-Hour PM-10 Concentrations ($\mu\text{g}/\text{m}^3$)
[Please see original document for figure]

Response: The content of this comment is essentially the same as comment SAIP-AL00004-8; please refer to Response to Comment SAIP-AL00004-8.

SAIP-AL00004 - 32

Comment: Background PM-2.5 Concentrations: The 24-hour background concentration for PM-2.5 is entirely inconsistent with the assumed 24-hour background concentration for PM-10. It is physically impossible for PM-2.5 concentrations ($83.7 \mu\text{g}/\text{m}^3$) to exceed PM-10 concentrations ($61 \mu\text{g}/\text{m}^3$), as the latter includes the former. Either the assumed PM-10 concentration is too low, or the PM-2.5 concentration is too high. If the latter, then the air quality analysis would be conservative for PM-2.5, but it is unclear why such an inconsistency is carried through the DEIR. The DEIR does indicate that the two values are derived from different sources, but it is not clear why PM-2.5 to PM-10 ratios were not used in place of what appear to be absolute PM-2.5 data.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-9; please refer to Response to Comment SAIP-AL00004-9.

SAIP-AL00004 - 33

Comment: Combined Project Impacts: DEIR Table 4.3-14 presents the estimated air quality impacts of the SAIP, while Table 4.3-15 presents the combined impacts of the SAIP and other concurrent projects. From these tables, it is apparent that the impacts of the non-SAIP projects are assumed to be zero, except in the case of annual average PM-10 concentrations which actually decline when the SAIP is combined with other concurrent projects ($43.3 \text{ pg}/\text{m}^3$ with the SAIP alone, versus $42.2 \text{ pg}/\text{m}^3$ combined). It would be prudent for the null impact of the non-SAIP projects to be explicitly stated (as opposed to requiring the reader to compare forecasted air quality concentrations from two different tables) and justified. If none of the concurrent projects involve construction or other emissions equipment, it should be sufficiently simple to document that fact. As it is, the reader is left with only elementary project descriptions and tabulated null impacts.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-10; please refer to Response to Comment SAIP-AL00004-10.

SAIP-AL00004 - 34

Comment: APU Assumptions: APU emissions, particularly as related to PM, are discussed extensively in the cited Master Plan reference letters and those comments apply equally to the SAIP. However, Tables K-10 and K-11 of DEIR Appendix K respectively list the APU assumptions used for the 2003 and 2005 air quality analyses, and a cursory comparison of the tables indicates differences between 2003 and 2005 APU assumptions, even though the DEIR implies that such differences should not exist. For example, in Table K-10 (1 of 10), the following APU assumptions are indicated for 2003:

[Please see original document for table

In Table K-11 (1 of 10), the corresponding APU assumptions indicated for 2005 are:

[Please see original document for table.]

The DEIR should clarify these and any other inconsistencies.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-11; please refer to Response to Comment SAIP-AL00004-11.

SAIP-AL00004 - 35

Comment: Cumulative PM Impacts Do Not Meet CAAQS/NAAQS: As with the LAX Master Plan, cumulative PM-10 impacts result in continuing violations of the CAAQS. CAAQS violations occur even with all indicated mitigation measures in place. Additionally, violations of both the CAAQS and the NAAQS occur for mitigated PM-2.5. This is particularly important since PM-2.5 impacts were not estimated in the Master Plan FEIR/FEIS. Nevertheless, the significance of SAIP PM-2.5 impacts clearly demonstrates that the PM-2.5 impacts of the overarching Master Plan would be equally (if not more) significant.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-12; please refer to Response to Comment SAIP-AL00004-12.

SAIP-AL00004 - 36

Comment: PRELIMINARY REVIEW OF HYDROLOGY. WATER QUALITY AND HUMAN HEALTH RISK ASSESSMENTS PROVIDED IN THE SAIP DRAFT EIR

Introduction and General Comments

A.C. Lazzaretto & Associates has been retained by the Los Angeles County Chief Administrative Office to review and comment on certain portions of the Draft Environmental Impact Report (Draft EIR) prepared for City of Los Angeles - Los Angeles World Airport's (LAWA) proposed South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). Specifically, our review has focused on the adequacy of the EIR review of Hydrology, Water Quality and Drainage with respect to the County's facilities and permit requirements, and on the adequacy of the Ambient Air Quality Human Health Risk Assessment with respect to potential public health effects that may impact County residents living in the vicinity of LAX.

The comments presented herein should be considered in the context of the full record of County comments on the LAX Master Plan CEQA and NEPA documents. The full record includes (1) a detailed formal comment letter on the initial Draft EIR/EIR released in 2001; (2) a detailed formal comment letter on the Supplement to the Draft EIS/EIR released in 2003; (3) a detailed formal comment letter on the Final EIS/EIR released in 2004; and (4) a detailed formal comment letter on the Consensus Plan and Alternative E that was submitted to LAWA in 2004.

Response: The comment is noted. Please see Responses to Comments below. This comment pertains to the LAX Master Plan Final EIR/EIS and incorporates by reference comments on that document. In accordance with federal and state requirements, written responses were prepared for all comments received during the public review periods for the LAX Master Plan Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, written responses were prepared for all comments received during the public review period for the LAX Master Plan Final EIS. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00022, AL00036, SAL00004, SAL00010, SAL00013, and SAL00014 included in Part II of the LAX Master Plan Final EIR, and FAL00001 and FAL00002 included in FAA's Record of Decision on the LAX Master Plan. Based on the fact that responses have already been provided in accordance with federal and state requirements for the comments on the LAX Master Plan EIS/EIR that the commentor incorporates by reference, and the fact that this comment, as well as the comments incorporated by reference, are not specific to the SAIP Draft EIR, no further response is required.

SAIP-AL00004 - 37

Comment: As a threshold issue, a consistent and central theme of the County's prior reviews has been that LAWA has failed to present a fully reasoned, thoughtful and straightforward examination of the potential impacts of the proposed Master Plan project. A similar pattern is somewhat evident in the current SAIP Draft EIR.

Our concerns have not been allayed by information provided in the Draft EIR about the SAIP, the design of which was substantially modified after certification of the Final Master Plan EIR. A close review of LAX Master Plan CEQA documents over the past 5 years confirms the reality that the adopted Master Plan improvement project and proposed South Airfield improvements will:

- Facilitate unconstrained growth at LAX;
- Ineffectively serve stated security goals;
- Thwart the underlying goals and objectives of CEQA;
- Place a low priority on phasing of environmental and congestion improvements;
- Further erode environmental justice for residents of neighboring communities;
- Further weaken interagency communication and trust;
- Undermine the impetus for expanded regional air transportation; and
- Codify misleading baseline assumptions concerning noise, air quality and human health

Response: The content of this comment is identical to comment SAIP-AL00004-2; please refer to Response to Comment SAIP-AL00004-2.

SAIP-AL00004 - 38

Comment: Hydrology and Water Quality Concerns

1. The Certified Master Plan Final EIR Presented Misleading Conclusions Concerning Hydrologic Impacts on Dominguez Channel

The 2004 LAX Master Plan Final EIR indicated that impacts on Dominguez Channel would be significantly lower -- for all four studied alternatives -- than now presented in the SAIP Draft EIR. The Final EIR indicated that the Master Plan reduction in permeable area in the Dominguez Channel would range from a high of 7% (for Alternative C) to a low of 3% for the proposed Alternative D. Even at these levels, the Final EIR acknowledged potentially significant adverse cumulative impacts on regional drainage facilities.

Ironically, the Draft EIR for the newly modified SAIP would significantly increase the impact on Dominguez Channel relative to Findings contained in the Final EIR. Whereas the Final Master Plan EIR forecast a 3% reduction in permeable area for the preferred Alternative D, the SAIP would reduce permeable area by an estimated 14%. The new estimate represents twice the level of the highest-impact alternative previously studied, and more than triple the impact of the preferred Alternative D as presented in the Master Plan EIR. This is a direct contravention of CEQA, which requires that Lead Agencies utilize project alternatives to minimize or avoid significant impacts.

Response: The content of this comment is identical to comment SAIP-AL00004-13; please refer to Response to Comment SAIP-AL00004-13.

SAIP-AL00004 - 39

Comment: 2. The Significant Adverse Direct and Cumulative Impacts on Dominguez Channel Can and Should be Mitigated by LAWA

The Draft SAIP EIR notes, in §4.1.7, "There are currently capacity constraints within the Dominguez Channel Watershed, especially at the point where the Dominguez subbasin drains into a Los Angeles County conveyance facility that was designed for a 10-year storm event. Although the SAIP would be designed to address flooding within the boundaries of the project study area, increased surface water runoff and peak flows resulting from the project, in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by the regional drainage infrastructure serving the Dominguez Channel watershed." The EIR then finds, in §4.1.9, that implementation of Mitigation Measure HWQ-1 under the LAX Master Plan¹ would mitigate this impact but, "...because this mitigation measure is not fully within the jurisdiction of the lead agency to implement, the implementation of the mitigation cannot be guaranteed and therefore, the cumulative impact is considered to be potentially significant and unavoidable."

A review of the recommended drainage and water quality improvements provided in the Concept Drainage Plan provided in Appendix A indicates that LAWA has not fulfilled its commitment to identify "the overall improvements necessary to provide adequate drainage capacity to prevent flooding." Though significantly weighted toward the water quality review (compared with the drainage plan components), the CDP fails to take advantage of one obvious means of providing enhanced flood protection: the utilization of its water quality detention facilities to provide sustained storm water retention. Whether through this and/or other means, the County requests that LAWA provide on-site stormwater retention facilities with capacity sufficient to contain all flows that would exceed the residual (unused) capacity of the downgradient storm drain system.

1 Mitigation Measure HWQ-1 is as follows: "MM-HWQ-1. Upgrade Regional Drainage Facilities. This mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development." Commitment HWQ-1 is as follows: "HWQ-I. Concept Drainage Plan. This LAX Master Plan commitment requires the preparation of a Conceptual Drainage Plan (CDP) that identifies the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The CDP will provide the basis and specifications by which detailed drainage improvement plans shall be designed in conjunction with site engineering specific to each LAX Master Plan project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water. In accordance with this commitment, LAWA will prepare SUSMPs for individual LAX Master Plan projects. The overall result of LAX Master Plan Commitment HWQ-I will be a drainage infrastructure that provides adequate drainage capacity to prevent flooding with the potential to harm people or damage property and to control peak flow discharges, and that incorporates BMPs to minimize the effect of airport operations on surface water quality and prevent a net increase of pollutant loads to receiving water bodies."

Response: The content of this comment is identical to comment SAIP-AL00004-14; please refer to Response to Comment SAIP-AL00004-14.

SAIP-AL00004 - 40

Comment: 3. The SAIP Project May Impact Groundwater Resources

LAX is located just north of one of three critical seawater barriers (the West Coast Basin Barrier) that prevent seawater intrusion into the Central and West Coast Basin groundwater resources. The barriers are operated and maintained by the Los Angeles County Department of Public Works (LADPW), and the water replenishment supplies are purchased and supplied by the Water

Replenishment District (WRD). The County requests that LAWA evaluate the extent to which reduced permeable land area may impact natural basin replenishment in this critical area. The County also requests that LAWA coordinate with LADPW and WRD to determine whether the expanded detention basins (see Item C3 above) may be designed and located to enhance groundwater management controls.

Response: The content of this comment is identical to comment SAIP-AL00004-15; please refer to Response to Comment SAIP-AL00004-15.

SAIP-AL00004 - 41

Comment: Human Health Risk Assessment

1. The Human Health Risk Assessment Must Show the Geographic Distribution of Emissions and Adverse Health Effects.

In order to fully disclose impacts associated with air pollutant and TAC emissions, the EIR needs to show the geographic distribution of pollutants and resulting health risks. This is routinely done by graphically depicting isopleths of pollutant concentrations (and the numerical values of the cancer and non-cancer health risks) on a map. Meaningful analysis of project impacts, the distribution of impacts, and the focus of mitigation to reduce those impacts is greatly impeded by not disclosing the geographic distribution of pollutants and resulting health risks. As an example, if the geographic distribution of pollutants and health risk was over the ocean or primarily over industrial land uses, the adverse health risk would be substantially lower than if the geographic distribution of pollutants was over residential land uses and schools.

Response: The content of this comment is identical to comment SAIP-AL00004-16; please refer to Response to Comment SAIP-AL00004-16.

SAIP-AL00004 - 42

Comment: 2. The SAIP Draft EIR Must Fully Disclose Chronic 5. Acute Non-Cancer Health Effects.

CEQA requires disclosure of impacts in layman's terms. While the SAIP Draft EIR quantitatively expresses chronic and acute non-cancer risks as a measure of the hazards index, it does not describe those risks. As an example, prolonged exposure to fine particulates results in increased respiratory symptoms and disease such as asthma, decrease lung function especially in children, alterations in lung tissue structure, respiratory tract defense mechanisms, and premature death of individuals subjected to chronic exposure of high concentrations of fine particulates. CEQA and recent case law (Bakersfield Citizens for Local Control v. City of Bakersfield; 124 Cal. App. 4th 1184) requires that EIR air quality assessments not only quantify but also describe the impacts in terms understandable by the public at large.

Response: The content of this comment is identical to comment SAIP-AL00004-17; please refer to Response to Comment SAIP-AL00004-17.

SAIP-AL00004 - 43

Comment: 3. The Community of Lennox will be Disproportionately Impacted by SAIP Health Risks

A review of the SAIP project description and the alignment of aircraft take-off and landing patterns indicates that the health risk impacts associated with the project will primarily affect areas located to the east of the runways. The community of Lennox, located in unincorporated County land and the City of Inglewood, appear to be most directly impacted. The County is concerned about the potential inequity of this impact, and again requests that the EIR depict the geographic distribution of pollutants and resulting health risks to adequately inform decision makers of project impacts.

Response: The content of this comment is similar to comment SAIP-AL00004-18; please refer to Response to Comment SAIP-AL00004-18.

SAIP-AL00004 - 44

Comment: 4. The EIR Fails to Disclose Environmental Justice Impacts

In 1999, Senate Bill 115 was passed making environmental justice a requirement of CEQA (PRC §.72000-72001). The analysis is intended to determine whether minority and low-income communities are unfairly burdened by project impacts, with the goal of using mitigation measures to create a level playing field. Despite this requirement, the EIR did not include an analysis of impacts on minority and low-income communities to determine whether they are unfairly burdened by project impacts, particularly those associated with Human Health Risk. Again, the County requests that LAWA utilize the HHRA to quantify environmental justice impacts, including a detailed map showing the geographic distribution of health risks.

Response: The content of this comment is essentially the same as comment SAIP-AL00004-19; please refer to Response to Comment SAIP-AL00004-19.

SAIP-AL00004 - 45

Comment: 5. LAWA Must Provide Mitigation for Health Risks to the Maximum Extent Feasible

Because health risks dramatically and permanently diminish the quality of life (including premature death) of the impacted population, LAWA must commit to mitigating these impacts to the maximum extent feasible. Mitigation should include the incorporation, as part of Phase 1 improvements, of electrical support equipment or ultra low emissions technology to reduce health risks. Mitigation should also include incentives for reduced aircraft emissions. The SAIP Draft EIR mitigation measures must also include a funding mechanism to pay for the increased cost to the County of health care services incurred as a result of the increased health risks associated with the proposed project.

Response: The content of this comment is similar to comment SAIP-AL00004-20; please refer to Response to Comment SAIP-AL00004-20.

SAIP-AL00004 - 46

Comment: Closing Comments

As emphasized in prior comment letters, the County has a special responsibility in this process, since it represents the unincorporated communities that are most directly impacted by LAX operations. To ensure that project impacts are reduced to the maximum extent feasible, the County would welcome an opportunity to communicate with LAWA representatives about any aspect of the comments, concerns and recommendations expressed above.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the Draft EIR, and thus does not require a further response.

SAIP-AL00005 Perlmutter, Robert S. Shute, Mihaly & Weinberger LLP 9/14/2005

SAIP-AL00005 - 1

Comment: On behalf of the City of El Segundo, we have reviewed the August 2005 Project-Level Tiered Draft Environmental Impact Report for the proposed South Airfield Improvement Project (the "SAIP DEIR" or "DEIR"). We submit this letter to state our position that the SAIP DEIR does not comply with the California Environmental Quality Act ("CEQA") for all of the reasons set forth below. Unless the DEIR is extensively revised and recirculated, any approvals made on the basis of its environmental analysis will be unlawful.

Response: The comment is noted. Please see Responses to Comments below. The SAIP Draft EIR meets the requirements of CEQA.

SAIP-AL00005 - 2

Comment: The South Airfield Improvement Project ("SAIP" or "Project") is the first project to be pursued by Los Angeles World Airports ("LAWA") under the Master Plan devised for Los Angeles International Airport ("LAX"). LAWA has stated its intention to conduct environmental review of Master Plan projects through CEQA's "tiering" procedure. Under a properly applied tiering regime, environmental review of individual projects would rely on the Master Plan Environmental Impact Report ("MPEIR" or "Master Plan EIR") only in those areas where the earlier document adequately covered the project's environmental impacts.

Tiering is thus intended to be a means of avoiding redundancy. The SAIP DEIR, however, uses the concept as a justification for persistent flaws and omissions in its analysis and mitigation. Indeed, with a few isolated exceptions, the SAIP DEIR does not even purport to analyze the Project's operational impacts following construction. Instead it relies exclusively on the program-level analysis set forth in the MPEIR.¹ Through this exclusive reliance on the MPEIR, the SAIP DEIR also uses blatantly outdated environmental baseline data for its most important analyses, leading it to understate, in some cases severely, the Project's noise, traffic, and air quality impacts.

¹ Because this approach, of necessity, incorporates all of the MPEIR's flaws into the instant DEIR, we incorporate by reference here all of our comments (including exhibits) on the MPEIR into this letter. These comments include, but are not limited to, comments we submitted on behalf of the City of El Segundo on September 18, 2001, November 4, 2003, and December 1, 2004. The severe flaws in the MPEIR also led El Segundo to file a lawsuit challenging LAWA's certification of that document and approval of the Project. See *City of El Segundo v. City of Los Angeles et al*, Riverside Superior Court No. RIC426822 ("the Litigation"). El Segundo's Opening Brief in the Litigation, which details how LAWA's own administrative record supports the arguments set forth in the City's prior comments, is attached hereto as Exhibit 1 and incorporated herein by this reference.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan Final EIR. Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR. Topical Response TR-SAIP-GEN-1 includes a discussion describing why no further operations-related analysis was needed for the SAIP EIR.

In response to the comments directly related to the LAX Master Plan Final EIR, including the incorporation by reference of all comments submitted by the commentor regarding the LAX Master Plan Final EIR on behalf of the City of El Segundo and the commentor's brief filed in litigation regarding the LAX Master Plan Final EIR, these comments are not on the SAIP Draft EIR and no further response is required. Nonetheless, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Thus again, no further response is required. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00033 and SAL00015 included in Part II of the LAX Master Plan Final EIR, and FAL00003 included in FAA's Record of Decision on the LAX Master Plan.

SAIP-AL00005 - 3

Comment: In a similar fashion, the DEIR attempts to use the MPEIR's analysis of several large-scale, conceptual airport plans as an excuse for its refusal to consider any alternate means of achieving the safety improvements at the heart of the SAIP. In direct contravention of CEQA's requirements, the SAIP DEIR does not even consider the mandatory no-project alternative that CEQA requires in every EIR. This refusal is particularly inappropriate in light of the fact that the proposed airfield reconfiguration is a questionable strategy, at best, for reducing the number of runway incursions at LAX. A no-construction airfield modification alternative could potentially resolve the airport's safety issues, save hundreds of millions of dollars, and avoid huge environmental impacts. Yet the DEIR completely ignores the possibility.

Response: Much of this comment focuses on the overall approval and recommendation of the SAIP as the best means to address the specific purpose and need and not on the environmental impacts associated with the implementation of the SAIP or the adequacy of the SAIP Draft EIR to disclose those

impacts. The SAIP EIR is intended to disclose those potential environmental impacts that had not and could not be addressed in the LAX Master Plan Final EIR. Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Also, see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP and TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The analysis of the no-project alternative is included in the LAX Master Plan Final EIR. That analysis concluded that there are no no-construction airfield modification alternatives that would meet the purpose of the SAIP.

SAIP-AL00005 - 4

Comment: Moreover, even when the DEIR does discuss the SAIP's specific impacts, it repeatedly makes unsupported conclusions that the impact will be insignificant, or that vague and unenforceable mitigation measures will somehow reduce those impacts to less than significant levels. The SAIP DEIR also fails to consider a host of potentially feasible mitigation measures.

Response: The comment fails to raise any specific comments on the SAIP Draft EIR, thus specific responses are not possible. Generally, Chapter 4 of the Draft EIR presents the potential environmental effects of the SAIP associated with hydrology and water quality, off-airport surface transportation, air quality, human health risks, noise, and biotic communities, based upon additional analyses and reviews conducted for this tiered EIR. Section 5 presents the effects on other environmental categories from information that could be taken directly from the LAX Master Plan Final EIR. Determinations of significance of those impacts are based upon various guidance documents, such as the Draft L.A. CEQA Thresholds Guidelines, the State CEQA Guidelines Appendix G, the SCAQMD CEQA Air Quality Handbook, and other sources relevant to the particular environmental topic. The sources of, and basis for, the criteria used to define the various thresholds of significance are clearly documented throughout Chapter 4 of the SAIP Draft EIR. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR. Please see Topical Response TR-SAIP-GEN-3 regarding the relationship of LAX Master Plan commitments and mitigation measures to SAIP and associated mitigation measures. Mitigation measures and commitments that would apply specifically to the SAIP are discussed in Section 4 for hydrology and water quality, off-airport surface transportation, air quality, human health risks, noise, and biotic communities and in Section 5 for the other environmental categories. Mitigation measures and mitigation commitments recommended and adopted in the LAX Master Plan that would be applicable to the SAIP are incorporated into the analysis and are recommended to be adopted as conditions of approval of the SAIP.

SAIP-AL00005 - 5

Comment: As a result of the DEIR's inadequacies, there can be no meaningful public review of the Project's environmental impacts. CEQA accordingly requires LAWA to prepare and recirculate a revised DEIR to permit a complete understanding of the environmental issues at stake.

Response: The SAIP Draft EIR has been prepared in accordance with CEQA's requirements for a tiered EIR. The SAIP Draft EIR presents analysis and documentation of new information regarding the SAIP, including the potential impacts of its construction that was not available for and included in the LAX Master Plan Final EIR. The SAIP Draft EIR appropriately references and relies upon data in the LAX Master Plan Final EIR for potential impacts that were identified in that program level EIR. No changes are needed to the EIR that would warrant or require recirculation.

SAIP-AL00005 - 6

Comment: I. THE SAIP DEIR'S CONFUSING ORGANIZATION AND EXCESSIVE RELIANCE ON THE MPEIR PRECLUDES MEANINGFUL REVIEW.

With this document, LAWA has continued the strategy it has pursued throughout the Master Plan process: burying the significant environmental impacts of its massive proposed projects, along with anyone who seeks to understand those impacts, under mountains of paper.

Throughout the DEIR, the reader is referred to the MPEIR for descriptions of mitigation measures or explanations of methodology. To some extent, such incorporation by reference is legitimate and inherent in the tiering process. However, the SAIP DEIR routinely includes citations that refer only to an entire chapter or lengthy appendix, which may be hundreds of pages long and in the midst of a document of over ten thousand pages. The reader is thus left unaided to find his or her own way to the referenced information. Moreover, in many cases, the MPEIR information referenced in the SAIP DEIR is neither summarized nor explained, and is thus incomprehensible to the lay reader.

This is not merely a complaint about writing styles. The SAIP DEIR's incomprehensibility undermines its ability to fulfill CEQA's fundamental purpose. An EIR is meant to be an informational document, a means of "inform[ing] the public and its responsible officials of the environmental consequences of their decisions before they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

A DEIR can only fulfill this role if it is comprehensible to the public. And to be comprehensible, the SAIP DEIR must, at the very least, summarize and specifically describe critical information from the earlier document that it incorporates. As the CEQA Guidelines expressly provide in the analogous context of incorporation by reference of outside documents, "[i]ncorporation by reference is most appropriate for including long, descriptive, or technical materials that... do not contribute directly to the analysis of the problem at hand." CEQA Guidelines § 15150(f); *Emmington v. Solano County* (1987) 195 Cal.App.3d 491, 502-03 (outside reports do not support environmental document where they are not adequately summarized and analyzed). Accordingly, to fulfill its critical informational role, the SAIP DEIR must be revised to be comprehensible to the lay public.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. Several of the specific statements in this comment refer to the LAX Master Plan and the LAX Master Plan Final EIR, which was certified by the Los Angeles City Council. These comments are not on the SAIP Draft EIR and no further response is required. To the extent practical, the authors of the SAIP Draft EIR have attempted to provide specific references to elements of the LAX Master Plan Final EIR, as appropriate. In some cases, information regarding a specific topic is spread throughout a section and specific references to subsections and page numbers is not practical. The LAX Master Plan Final EIR is not an outside document per se, but is the document from which the SAIP EIR is tiered. In preparing the SAIP Draft EIR and the LAX Master Plan Final EIR, LAWA has made a good faith effort to fully disclose and analyze the potential environmental impacts of the SAIP.

SAIP-AL00005 - 7

Comment: II. THE SAIP DEIR PROVIDES AN IMPERMISSIBLY TRUNCATED OBJECTIVE FOR THE PROJECT.

The definition of a project's purpose and objectives lays the foundation for the entire EIR. Analyzing and disclosing a project's impacts is essentially meaningless unless it is done with a view to understanding how well the project achieves its objectives, and whether that achievement is worth the environmental and other costs. Perhaps most importantly, as discussed below, an EIR cannot provide a meaningful comparison between the project and various alternative courses of action unless the project's objectives are defined broadly enough to make such alternatives at least potentially possible. *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App.3d 692, 735-37; *City of Santee v. County of San Diego* (1989) 214 Cal. App. 3d 1438, 1455

The SAIP DEIR disregards this foundational aspect of CEQA and instead articulates an objective for the Project so narrow that it skews all of the analysis that follows. The DEIR states that the Project's objective "is to implement the SAIP." In other words, the purpose of the Project is to implement the Project. This circular approach is, quite simply, absurd. By choosing the narrowest possible Project objective, LAWA has effectively declared, in the preliminary sections of the DEIR, that the Project will be approved, regardless of the results of the analysis that follows. A project objective that may only be satisfied by the proposed Project has engendered a DEIR that is absolute in its preference for that proposal. Rather than providing the required reasoned, objective analysis, the DEIR has become "nothing more than [a] post hoc rationalization[]" for a decision already made. *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 394.

Accordingly, the DEIR must be revised to set forth a proper Project objective that permits meaningful consideration of alternatives. Other parts of the present document suggest that the Project's true goal is improving safety by decreasing the number of runway incursions that occur on Runway 25R. E.g., SAIP DEIR at II-2 ("[A] primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions."); SAIP DEIR, Appx. B at 3 ("reducing or eliminating the risk of runway incursions on the south airfield at LAX, while maintaining airfield efficiency and being cost-effective"); see, e.g., *Save the Niobara River Ass'n v. Andrus* (D. Neb. 1979) (project's true purpose was to provide economic stimulus to region, not to add irrigation). Accordingly, we will assume for purposes of our comments that effectively reducing the risk of runway incursions is LAWA's true Project objective.

Restating the Project objective in these terms is particularly revealing here. As the documents referenced in the DEIR itself underscore, there is little or no evidence that the massive \$300 million SAIP will effectively reduce runway incursions. Indeed, as explained below and in the attached memorandum from Professor Adib Kanafani, the Project does nothing to directly address the primary cause of runway incursions, which is human error. See September 14, 2005 memorandum from Professor Adib Kanafani to Robert Perlmutter ("Kanafani Memorandum"), attached hereto as Exhibit 2. This point is further detailed in a report on the SAIP DEIR being submitted by Palos Verdes Estates Mayor A. Dwight Abbott. See A. Dwight Abbott, *Don't Move LAX Runway 25L-7R*. Moreover, the only actual study that the DEIR cites to support the Project's efficacy in fact suggests that the risk of runway incursion is slightly greater with the proposed Project than without. *Id.*; NASA Future Flight Central (2003), *Los Angeles International Airport Runway Incursion Studies, Phase III – Center Taxiway Simulation* at p. 16.

A properly stated Project objective would therefore force decisionmakers to confront whether this Project's nonexistent to marginal benefits are worth its tremendous environmental and economic costs. And, in keeping with CEQA's central purpose, it would allow members of the public to scrutinize that decision and hold their elected officials accountable. By contrast, the DEIR's impermissibly narrow Project objective misleads the public and decisionmakers into thinking that the SAIP will fully achieve its legitimate objectives. (By definition, only the SAIP can "implement the SAIP.") It thereby impermissibly allows LAWA to duck public scrutiny on this critical issue. Revising the Project's stated goal will not by itself reverse this inadequacy, but it is a necessary first step.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Accordingly, no further response is required as to those portions of the comment.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP, which incorporates the objectives for the project. Also please see Topical Response TR-SAIP-ALT-1 regarding the consideration of alternatives in the SAIP. The reference by the author that the DEIR states that the Project's objective "is to implement the SAIP," is taken out of context. The SAIP Draft EIR states in Section 2.4.1 that: "The purpose of this project is to implement the SAIP consistent with the purpose and objectives of the LAX Master Plan, as set forth in Chapter 1 of the Final LAX Master Plan and Chapter 2 of the LAX Master Plan Final EIR." The goals and objectives that guided the Master Plan process are summarized in Section 2.1 of the SAIP Draft EIR.

As discussed in TR-SAIP-PD-1 and as stated by the commentor, the primary purpose for the project is to reduce runway incursions. While it is correct to state that the construction of the centerline taxiway would not in and of itself reduce the likelihood of human error, it would reduce the potential for human error to result in a runway incursion. In other words, although the likelihood for human error may or may not be reduced, the potential for a bad outcome to result from a human error would be reduced. The NASA Ames report cited by the commentor actually finds that the most common runway incursion at the Airport occur when an aircraft arriving on Runway 25L exits at one of the high-speed exits, and then fails to stop the aircraft before overshooting the hold-bars for Runway 25R due to human error. The presence of the center taxiway would provide a margin of safety for this human error by providing additional pavement to bring the aircraft to a complete stop thereby reducing the number of runway incursions at the Airport. The probability of an aircraft

causing a runway incursion to occur after having come to a complete stop is minimal as shown at other major airports in the country.

SAIP-AL00005 - 8

Comment: III. THE SAIP DEIR IMPERMISSIBLY USES A 1996 BASELINE TO MEASURE NOISE AND AIR QUALITY IMPACTS.

A particularly glaring inadequacy of the SAIP DEIR is its use of an improper environmental baseline to assess the Project's post-construction operational impacts. Every EIR's analysis of a project's environmental effects must begin with the description of the environmental conditions immediately before the project, i.e., the baseline. Investigating and reporting baseline conditions is "a crucial function of the EIR." *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal. App. 4th 99, 122. "[W]ithout such a description, analysis of impacts, mitigation measures and project alternatives becomes impossible." *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 953. Decisionmakers must be able to weigh the project's effects against "real conditions on the ground." *City of Carmel-by-the-Sea v. Board of Supervisors* (1986) 183 Cal. App. 3d 229, 246. "Because the chief purpose of the EIR is to provide detailed information regarding the significant environmental effects of the proposed project on the physical conditions which exist within the area, it follows that the existing conditions must be determined." *Save Our Peninsula Committee*, 87 Cal. App. 4th at 120 (internal quotation marks omitted).

CEQA thus provides that the proper date for establishing the baseline is "the time the notice of preparation ["NOP"] is published." CEQA Guidelines § 15126.2(a). Here, the NOP for the SAIP EIR was published on August 5, 2004. Accordingly, the proper date for establishing on-the-ground conditions for the DEIR is August 5, 2004. While the DEIR at least pays lip service to this requirement in assessing the Project's construction impacts and operational impacts during the construction period,² it inexplicably ignores this requirement with respect to the Project's post-construction operational impacts.

Indeed, the SAIP DEIR does not analyze the Project's post-construction operational impacts against any baseline. Instead, it simply adopts, without any meaningful explanation, the analysis of the operational noise and air quality impacts that were presented in the Master Plan EIR. The MPEIR, in turn, compares the SAIP's impacts not to actual conditions on the ground, but to conditions as they existed in 1996, almost a decade ago. Through this sleight of hand, the SAIP DEIR effectively reports impacts that are dramatically smaller than the Project's real effects. Regardless of whether 1996 was an appropriate baseline for the Master Plan EIR (and we continue to maintain that it was not), using it for environmental review of the SAIP in 2005 plainly violates the Guidelines' requirement that environmental effects be measured against the conditions obtaining at the time of the NOP. Using a 2003 baseline for construction impacts but a 1996 baseline for post-construction operational impacts is entirely arbitrary and improper.

The SAIP DEIR's flaw in this regard is not merely formal. Using the 1996 baseline instead of the mandated 2004 baseline significantly skews the document's analysis of post-construction operational noise and air quality impacts. As the SAIP DEIR itself acknowledges, the annual number of operations at LAX has fallen dramatically since 1996. Table 3-2, SAIP DEIR at III-17. In 1996, with many more operations, the airport was noisier and air quality was worse than in 2003. Setting the baseline at 1996 thus minimizes the change caused by the SAIP and leads the SAIP DEIR to greatly understate the significance of its actual impacts. It also misleads the public and decisionmakers by suggesting that the SAIP and/or the Master Plan is responsible for the decline in noise and air quality impacts, when in fact this decline has nothing to do with either the Master Plan or the SAIP.

² For the construction-period impacts, the DEIR uses a 2003 baseline. Using a 2003 baseline for construction impacts, however, is also improper. A 2004 baseline should have been used. At the very least, the DEIR should provide evidence verifying that conditions in 2003 were comparable to those in 2004.

Response: The statement in the title of this comment, that the Draft EIR uses a 1996 baseline for evaluation of noise and air quality impacts, is incorrect. The Draft EIR does not use a 1996 baseline for analysis of those impacts. Rather, the Draft EIR uses a 2004 environmental baseline, compiled where necessary from data collected throughout calendar year 2003, for its evaluation of the noise and air quality impacts of the project that are studied in the Draft EIR, namely the noise and air quality impacts that result from construction-related activities under the Project (including the direct impacts of SAIP construction and the indirect impacts of changes to overall airport operation due to SAIP construction). The baseline conditions used for the SAIP tiered EIR are further described in the Introduction to Section 4, on page IV-3 of the Draft EIR, which states that the baseline used for the analysis presented in the EIR generally consisted of environmental conditions as of the date that the NOP for the SAIP EIR was published, and that the Year 2003 was used for those cases where a full year of data was needed for the analysis. (In Section 4, on page IV-3, the month that the NOP was published was erroneously stated to be July 2004. The actual month that the NOP was published was August 2004 – the actual date being August 5, 2004. The mistaken identification of the month of NOP publication will be corrected in the SAIP Final EIR.) Only in situations in which background conditions were determined not to have materially changed since preparation of the LAX Master Plan EIR (for example, with regard to biotic communities at the airport, or with regard to drainage infrastructure in and around the airport) did the EIR rely on environmental background information from the LAX Master Plan EIR.

Under CEQA Guideline 15125(a), which provides that the environmental setting at the time of publication of the NOP will "normally" constitute the baseline physical condition against which an agency compares the potential impacts of a project, the baselines used in the Draft EIR are correct for the Draft EIR's study of the noise and air quality impacts studied in the Draft EIR. (Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used for the assessment of construction-related impacts of the SAIP in the SAIP Draft EIR.)

The SAIP Draft EIR was not required to re-evaluate any other, non-construction related (i.e., post-construction) operational impacts of the SAIP, as those impacts were already fully evaluated in the LAX Master Plan EIR prior to the program-level approval of the LAX Master Plan, of which the SAIP is a component. The SAIP Draft EIR, as a project-level EIR "tiered" from the program-level LAX Master Plan EIR, is not required to re-evaluate impacts determined to have been adequately evaluated in the LAX Master Plan EIR. (See Topical Response TR-SAIP-PD-1, regarding the purpose and need for the SAIP project, and Topical Response TR-SAIP-PD-2, regarding the relationship of the tiered SAIP EIR to the LAX Master Plan EIR.) The LAX Master Plan EIR has already evaluated those other, non-construction related (post-construction) operational impacts of the SAIP in comparison with an environmental baseline comprising data current in 1996, the year of publication of the NOP for environmental review of the LAX Master Plan program, as later supplemented by disclosure of changes to background environmental conditions that were observed during development and evaluation of the LAX Master Plan program. Under CEQA Guideline 15125(a), the 1996 baseline was correct for the LAX Master Plan EIR's analysis.

The order in which LAWA studied, first, the post-construction operational impacts of the SAIP in the program-level LAX Master Plan EIR, and then studied, later, the construction-related impacts of the SAIP in the project-level Draft EIR, is correct under the "tiering" provisions of CEQA for evaluation of a series of actions that can be characterized as one large program of projects. (See Topical Response TR-SAIP-PD-2, regarding the relationship of the tiered SAIP EIR to the LAX Master Plan EIR.) Use of the "tiering" procedure allowed LAWA to evaluate the non-construction related operational impacts of the SAIP in the full context of the impacts of non-construction operation of the other projects contemplated under the LAX Master Plan EIR. And, use of the "tiering" procedure further allowed LAWA to disclose and evaluate in the SAIP Draft EIR, the impacts related to construction of the SAIP, when details of SAIP project design were developed following preparation of the LAX Master Plan EIR.

Use of a 1996 baseline in the LAX Master Plan EIR for evaluation of post-construction operation of the Master Plan projects, including the SAIP, does not understate the impacts of operation of the SAIP, as there have been no changes in the assumptions regarding aircraft operations, fleet mix, runway use, or other post-construction operational characteristics anticipated to occur in years following construction of the SAIP, compared with those assumptions presented in the LAX Master Plan Final EIR. As described in Section 4.5.6.1.5 of the SAIP Draft EIR and Section M.1.7 of Appendix M to the SAIP Draft EIR, it was concluded on the basis of discussions with FAA air traffic control personnel and independent assessment, that runway use patterns and airspace patterns

would not change upon completion of the SAIP. (See also Appendix C to the SAIP Draft EIR.) Therefore, no additional analysis of the post-construction operational impacts was required for the SAIP tiered EIR and no new baseline for assessing those impacts was required.

Contrary to the comment's allegation, the SAIP Draft EIR, far from misleading the public and decisionmakers, fully discloses changes to background operational levels between preparation of the LAX Master Plan EIR and preparation of the SAIP EIR by incorporating the Master Plan EIR by reference, and attributes those changes in environmental background to their actual causes, and does not imply that those changes are somehow due to the SAIP construction project.

Use of calendar-year 2003 data to develop a 2004 baseline is entirely appropriate in situations where a full calendar year's data is needed to accurately reflect existing conditions. CEQA is clear that the lead agency has broad discretion to compare the project's impacts to a baseline of its choosing, where substantial evidence supports the agency's decision that doing so will accurately disclose and evaluate the significance of environmental impacts. (*Save Our Peninsula Comm. v. Monterey County Bd. Of Supervisors* (2001) 87 Cal.App.4th 99, 126; *Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1277.)

Please see Topical Response TR-SAIP-GEN-1 regarding the development of environmental baselines for the SAIP EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR, and Topical Response TR-SAIP-PD-3 regarding the operational impacts analysis of the SAIP. Please see also Responses to Comments SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13, SAIP-AL00005-14 and SAIP-AL00005-15.

SAIP-AL00005 - 9

Comment: As just one example of this distortion, the table below compares the change in noise impacts in terms of total impacted acres, dwelling units, population, and sensitive land uses, using the two baselines. As it shows, using the older, improper baselines paints a falsely rosy picture of the Project's noise impacts.

Table 1: Comparison of Noise Impacts Using Erroneous 1996 Baseline and Updated 2003 Baseline [Please see original document for table.]

As the Master Plan EIR touts on several occasions, comparing the operation noise impacts of Alternative D to the 1996 baseline yields a net reduction in noise impacts. E.g., MPEIR at 4-90, 4-303. By contrast, as Table 1 shows, comparing the 2015 noise effects with the legally-required baseline shows a totally different picture: between 2003 and 2015, net impacts will increase.³ The comparison shown in Table 1 is just one noise impact. It could be repeated for all of the various aircraft noise impacts caused by the SAIP – newly-exposed homes, single noise event impacts, and so on as well as air quality impacts. In each instance, using the MPEIR's 1996 baseline understates the impacts of the changes proposed for the southern airfield. Although the MPEIR determined that there were significant impacts, its calculation of the scale of those impacts was wholly inadequate.

³ This switch from net reductions to net increases shows the essential problem with using the older baseline. Starting from 1996 conditions, the DEIR projects that by 2015, the airport will grow quieter. But in 2003, the airport was already quieter than the 2015 projections. As Table 1 shows, noise impacts are only getting worse from here, regardless of what has happened between 1996 and the present day. It is thus simply arbitrary to use the older baseline.

Response: Please see Response to Comment SAIP-AL00005-8 regarding the baselines for assessment of the post-construction operational impacts of the SAIP, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, Topical Response TR-SAIP-PD-2 regarding the relationship of the tiered SAIP EIR to the LAX Master Plan EIR, and Topical Response TR-SAIP-GEN-1 regarding the environmental baselines used for analysis of the significance of impacts considered in the SAIP Draft EIR. Please see also Responses to Comments SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13, SAIP-AL00005-14 and SAIP-AL00005-15.

The LAX Master Plan EIR fully disclosed and evaluated against background conditions existing at the time of initiation of environmental review of the LAX Master Plan, all aircraft noise impacts of

post-construction operation of the SAIP, along with operation of the other component projects of the LAX Master Plan, prior to approval of the Master Plan. The comment does not provide evidentiary grounds from which a conclusion may be reached that additional aircraft noise impacts associated with post-construction operation of the SAIP, or more significant aircraft noise impacts associated with post-construction operation of the SAIP, will occur. Therefore, there is no requirement that the SAIP Draft EIR reevaluate the post-construction aircraft noise impacts of the SAIP. Only those impacts of the SAIP that were not susceptible to full evaluation in the LAX Master Plan EIR, due to the then-incomplete status of project-level construction plans for the SAIP, are evaluated for significance in the SAIP Draft EIR, in comparison with an environmental baseline that, wherever appropriate, is derived from data reflecting environmental conditions existing at the time of initiation of project-level review of the SAIP.

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Comment: Indeed, the SAIP DEIR elsewhere acknowledges the difference that a shifting baseline makes. Specifically, in analyzing human health risks, the SAIP DEIR recognizes that the increment between projected 2005 Project conditions and a 2003 baseline is "roughly an order of magnitude greater" than that between 2005 no-project conditions and the 1996 baseline. SAIP DEIR at L-1. "[A]dditional analysis," using the 2003 baseline, was therefore needed "to ensure full disclosure of the potential health impacts of the SAIP." DEIR at L-1. The air quality and noise baselines could and should have been handled in the same manner as human health risks, but the DEIR never explains why the human health risk analysis was updated while others were left with the outdated baseline. What is true for the human health risk assessment must be true of all of the required impact analyses: to properly capture the environmental changes over actual conditions brought on by the SAIP, the DEIR must compare the Project's effects to the environment as it now exists. In the words of the DEIR itself, only by doing so can that document "ensure full disclosure of the of the potential [] impacts of the SAIP." Id.

Response: The commentor is incorrect in implying that the SAIP Draft EIR employs environmental baselines differently in its analysis of human health risks, compared with the manner in which the EIR employs environmental baselines in its evaluation of noise and air quality impacts. In all three impact categories, the Draft EIR uses an updated environmental baseline, consisting of 2003 data, to analyze the significance of SAIP construction-related impacts, i.e., impacts that may directly result from construction, and impacts that may indirectly result from temporary changes in operations due to construction, specifically due to the temporary closure of Runway 7R-25L. In no instance does the SAIP Draft EIR use a 1996 baseline to evaluate the significance of post-construction operational impacts, because that analysis was adequately performed, for noise, air quality and human health risk impacts, in the LAX Master Plan EIR, and need not be repeated in the project-level SAIP Draft EIR "tiered" from the program-level LAX Master Plan EIR.

The SAIP EIR does evaluate the significance of drainage and storm water runoff pollutant load impacts of post-construction operations under the SAIP, because post-construction operational impacts in those areas were not fully evaluated in the LAX Master Plan EIR, due to the fact that SAIP project design was too incomplete at the time of preparation of the LAX Master Plan EIR to permit such a full evaluation. As discussed in Topical Response TR-SAIP-GEN-1 regarding environmental baselines, the Draft EIR uses data from the LAX Master Plan EIR (recalculated in 2003) for its evaluation of biotic communities and storm water pollutant load impacts, as background conditions affecting those impacts were determined not to have materially changed since preparation of the LAX Master Plan EIR.

Please see also Topical Responses TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR, and TR-SAIP-PD-3 regarding airport operations and capacity as related to the SAIP. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13, SAIP-AL00005-14 and SAIP-AL00005-15.

SAIP-AL00005 - 11

Comment: It is no answer to claim that the DEIR is tiered from the Master Plan EIR and may therefore rely upon the earlier document's analysis. Invocation of the term "tiering" does not give a lead agency

license to present inadequate, outdated analysis of a proposed project's environmental effects. Indeed, the DEIR effectively concedes as much by using a partially updated 2003 baseline to analyze construction impacts and human health risk. Its arbitrary refusal to do so for the Project's operational impacts violates CEQA.

Response: The commentor is mistaken in implying that the SAIP Draft EIR provides inadequate or outdated evaluation of the environmental impacts. The SAIP Draft EIR uses environmental baselines, updated from those employed in the LAX Master Plan Final EIR, to evaluate all impacts assessed and documented in the SAIP Draft EIR, with the exception of impacts in areas such as storm water pollutant loads and biotic communities, where background conditions were determined not to have materially changed since preparation of the LAX Master Plan EIR.

The tiering procedures under CEQA are specifically designed so that, if a sufficiently comprehensive and specific program EIR is prepared, an agency may dispense with further environmental evaluation, in connection with later approvals within the program, of impacts that are adequately covered in the program EIR. (See CEQA Guidelines 15168(c), discussion following CEQA Guidelines 15168.) Here, LAWA has determined that the post-construction operational impacts of the SAIP were adequately evaluated in the LAX Master Plan EIR by comparison with the 1996 baseline properly employed in that document, and therefore, under the tiering provisions of CEQA, need not be reevaluated in the SAIP Draft EIR. Use of updated baselines in the Draft EIR's evaluation of construction-related (i.e., impacts directly resulting from construction, or indirectly resulting from changes in operations due to construction) is also appropriate under CEQA, which provides that the environmental baseline used in an EIR will "normally" be the baseline existing at the time of publication of the Notice of Preparation for the EIR. (CEQA Guidelines 15125(a).)

Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR, and Topical Response TR-SAIP-PD-3 regarding the operational impacts analysis of the SAIP. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-12, SAIP-AL00005-13, SAIP-AL00005-14 and SAIP-AL00005-15.

SAIP-AL00005 - 12

Comment: Similarly, LAWA's purported justification for relying on a 1996 baseline in the Master Plan EIR is even more unfounded here.⁴ When it certified the MPEIR in 2004, LAWA declined to present 2003 data for comparison purposes, claiming that the "events of September 11th [2001] substantially altered the nature and characteristics of operations at LAX." MPEIR at 4-7. Even assuming, arguendo, that this justification would have been permissible in the immediate aftermath of September 11", it cannot excuse the SAIP DEIR's failure to use the 2003 baseline now. First, as noted above, several sections of the DEIR do use 2003 as a baseline, undermining any argument that it is inappropriate.

⁴ El Segundo extensively commented on the impropriety of using the 1996 baseline for the MPEIR and, as noted above, we incorporate those comments by reference here.

Response: The SAIP Draft EIR uses an updated environmental baseline in all instances for which an updated baseline was needed to accurately portray the significance of the impacts considered in the SAIP Draft EIR. The SAIP Draft EIR used an updated 2004 baseline (based, where appropriate, on data from calendar year 2003) for its evaluation of all impacts studied in the SAIP Draft EIR, with the exception of impacts in areas such as storm water runoff pollutant loads and biotic communities, where the SAIP Draft EIR employed baseline information from the LAX Master Plan EIR, based upon a determination that baseline conditions in those impact areas had not materially changed between preparation of the LAX Master Plan EIR and preparation of the SAIP Draft EIR. Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR and Topical Response TR-SAIP-PD-3 regarding operational impacts analysis of the SAIP. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-13, SAIP-AL00005-14, and SAIP-AL00005-15.

In response to the comments directly related to the LAX Master Plan Final EIR, including the incorporation by reference of all comments submitted by the commentor regarding the LAX Master Plan Final EIR on behalf of the City of El Segundo regarding the 1996 baseline, these comments are not on the SAIP Draft EIR and no further response is required. Nonetheless, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Thus again, no further response is required. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00033 and SAL00015 included in Part II of the LAX Master Plan Final EIR, and FAL00003 included in FAA's Record of Decision on the LAX Master Plan.

SAIP-AL00005 - 13

Comment: Second, given that four years have passed since September 11th, and that the DEIR itself reports that passenger volumes and total operations continued to decline through the end of the 2003 period shown in the DEIR (SAIP DEIR at III-17 to -18), these declines cannot credibly be characterized as a temporary phenomenon caused by September 11th. Instead, they represent the actual on-the-ground baseline conditions against which the SAIP's actual impacts must be measured.

Response: The SAIP Draft EIR generally uses existing 2004 operations levels (derived, where necessary, from calendar year 2003 data) as the updated baselines against which environmental impacts are compared in the Draft EIR. The only exceptions are areas such as storm water runoff pollutant loads and biotic communities, where the SAIP Draft EIR employed baseline information from the LAX Master Plan EIR, based upon a determination that baseline conditions in those impact areas did not materially change between preparation of the LAX Master Plan EIR and preparation of the SAIP Draft EIR, and transportation and construction traffic noise, where the SAIP Draft EIR employed an "adjusted" baseline that includes non-SAIP activity anticipated to occur in the SAIP's peak construction year. The comment is mistaken in its implication that the Draft EIR discounts or avoids using otherwise appropriate updated environmental baselines on the ground that such baselines reflect "a temporary phenomenon." Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR and Topical Response TR-SAIP-PD-3 regarding the operational impacts analysis of the SAIP. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-14 and SAIP-AL00005-15.

SAIP-AL00005 - 14

Comment: In response to comments on the MPEIR, LAWA also attempted to support using the 1996 baseline by claiming that, generally speaking and looking at the entire airport area as a whole, noise conditions in 2000 were just as bad as in 1996. However, this generalization masks significant changes in El Segundo between 1996 and the present. For instance, the MPEIR's own noise contour maps reveal that the noise impacts to El Segundo were considerably worse in 1996 than in 2000 (i.e., the noise contours shifted inward towards the airport between 1996 and 2000 as Stage 2 aircraft were phased out under federal requirements). Accordingly, the fact that noise impacts from LAX have allegedly grown more severe elsewhere since 1996 cannot possibly justify relying on the demonstrably erroneous 1996 baseline to analyze the impacts on El Segundo residents. Doing so simply ignores the actual existing noise environment in El Segundo.

Response: Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13 and SAIP-AL00005-15.

In response to the comments directly related to the LAX Master Plan Final EIR, including the incorporation by reference of all comments submitted by the commentor regarding the LAX Master

Plan Final EIR on behalf of the City of El Segundo regarding the 1996 baseline, these comments are not on the SAIP Draft EIR and no further response is required. Nonetheless, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Thus again, no further response is required.

SAIP-AL00005 - 15

Comment: In short, CEQA requires that the public and decisionmakers be made aware of the changes that a Project will cause. Those changes are experienced as compared to the present environment. If the airport has become quieter in the years since 1996 (or since 9/11/2001), then the noise impacts of the SAIP will be felt by residents as the airport growing louder. Masking the significance of the Project's impacts by using the 1996 baseline renders the SAIP DEIR useless as an informational document and legally inadequate.

Response: Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baselines used in the SAIP Draft EIR, Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP project, Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR, and Topical Response TR-SAIP-PD-3 regarding airport operations and capacity as related to the SAIP. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13, and SAIP-AL00005-14.

There have been no changes in the assumptions regarding aircraft operations, fleet mix, runway use, or other post-construction operational characteristics in years following construction of the SAIP, compared with those assumptions presented in the LAX Master Plan Final EIR. As described in Section 4.5.6.1.5 and Section M.1.7 of Appendix M, it was concluded on the basis of discussions with FAA air traffic control personnel and independent assessment, that runway use patterns and airspace patterns would not change upon completion of the SAIP. (See also Appendix C to the SAIP Draft EIR.) Therefore, no additional analysis of the post-construction operational impacts was required for the SAIP tiered EIR and no new baseline for assessing those impacts was required.

SAIP-AL00005 - 16

Comment: IV. THE SAIP DEIR CONTINUES TO UNDERESTIMATE CAPACITY AND THEREFORE PROVIDES AN INADEQUATE PROJECT DESCRIPTION.

Like the MPEIR upon which it relies, the SAIP DEIR is built upon the erroneous premise that the Master Plan Alternative D would serve no more than 78.9 Million Annual Passengers ("MAP"). As detailed in our prior comments, however, the available evidence demonstrates that, under LAWA's own assumptions, Alternative D will actually serve approximately 87 MAP. See, e.g., November 4, 2003 Comments, Ex. 7; December 1, 2004 Comments, Exhibit A. As a result, the SAIP DEIR continues to inadequately describe the Project whose impacts it purports to analyze.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. As demonstrated, the SAIP does not add capacity to the airport.

In response to the comments directly related to the LAX Master Plan Final EIR, including all comments submitted by the commentator regarding the LAX Master Plan Final EIR on behalf of the City of El Segundo, these comments are not on the SAIP Draft EIR and no further response is required. Nonetheless, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Thus again, no further response is required. Responses to the commentator's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00033 and SAL00015 included in Part II of the LAX Master Plan Final EIR, and FAL00003 included in FAA's Record of Decision on the LAX Master Plan.

SAIP-AL00005 - 17

Comment: In a similar fashion, the SAIP DEIR continues to improperly rely on a 2015 horizon year for analyzing the Project's impacts. As detailed in our prior comment letters, this approach necessarily overlooks numerous foreseeable impacts of the Project. It also ignores the fact that both the FAA and the Southern California Association of Governments call for 20-year planning horizons for large-scale projects such as this.

Response: The SAIP is an implementation project of the LAX Master Plan. The overall impacts of the LAX Master Plan, including the SAIP have been adequately evaluated and disclosed through the Master Plan planning horizon year in the LAX Master Plan EIR and need not be further assessed or repeated in the SAIP EIR. The Master Plan was started approximately 10 years ago and a 20-year planning horizon was used for the Master Plan. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP Draft EIR to the LAX Master Plan EIR.

The comment pertains to the LAX Master Plan and/or LAX Master Plan EIS/EIR, rather than environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to the remaining comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-AL00005 - 18

Comment: Accordingly, to accurately analyze the impacts of the present Project, the SAIP DEIR must first be revised both to accurately disclose the Project's full capacity as 87 MAP and to reflect the appropriate 20-year planning horizon. The SAIP must then be further revised to identify, disclose, and analyze the additional impacts that flow from such a corrected project description.

Response: Please see Response to Comment SAIP-AL00005-16 and Response to Comment SAIP-AL00005-17. The SAIP Draft EIR and the LAX Master Plan Final EIR provide an accurate and complete assessment of the SAIP. Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-AL00005 - 19

Comment: V. THE SAIP DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S SIGNIFICANT ENVIRONMENTAL IMPACTS.

A. The SAIP DEIR Fails to Adequately Analyze and Mitigate the Project's Noise Impacts.

The SAIP will generate three distinct categories of noise impacts: (1) construction equipment noise; (2) aircraft noise during construction, the distribution of which is largely determined by the shifting air and ground traffic patterns required by the temporary closure of Runway 7L/25R; and (3) post-construction aircraft noise. The DEIR's analysis of and mitigation for each of these noise sources is flawed. El Segundo's primary comments on these failings are contained in the reports from Aviation Systems, Inc. ("Aviation Systems Report") and Wieland Associates, Inc. ("Wieland Report"), attached as Exhibits 3 and 4, respectively. Below is a brief summary of the issues raised in these reports.

Response: Responses to comments from Aviation Systems, Inc. and Wieland Associates, Inc. are provided. Please see Responses to Comments SAIP-AL00005-66 through SAIP-AL00005-72 regarding Aviation Systems, Inc.'s comments and Responses to Comments SAIP-AL00005-73 through SAIP-AL00005-101 regarding Wieland Associates, Inc. comments.

SAIP-AL00005 - 20

Comment: 1. The SAIP DEIR's Analysis of Construction Noise is Inadequate.

The DEIR's analysis of construction noise impacts is riddled with errors and critical omissions, which are fully described in the attached Wieland Report.

Response: Comment noted. Please see Responses to Comments SAIP-AL00005-73 through SAIP-AL00005-101 regarding Wieland Associates, Inc. comments related to the Draft EIR's analysis of construction noise impacts.

SAIP-AL00005 - 21

Comment: A few of the most troubling errors are briefly reviewed here. First, the DEIR simply fails to disclose several significant construction noise impacts. For instance, the Project's construction equipment noise, if properly calculated with sound attenuation factors appropriate to conditions at the Project site, represents at least an 8 dBA increase over existing ambient noise. Because the DEIR's significance threshold defines an effect as significant if it causes an increase of 5 dBA or more, this construction equipment noise must be disclosed and mitigated as a significant impact.

Response: The commentor has provided the correct threshold of significance, but is incorrect in stating that the construction noise analysis was not fully disclosed. The appropriate methods are applied as described in Section 4.5.2.4 of the SAIP Draft EIR. Please see Response to Comment SAIP-AL00005-73 regarding the sound attenuation factor used for construction equipment noise impact analysis. In Section 4.5.6.3 of the SAIP Draft EIR, the appropriate analysis and results of construction equipment noise impacts are disclosed. The program-level construction equipment noise analysis for the LAX Master Plan is provided in Section 4.1.6.4.3 of the LAX Master Plan Final EIR.

SAIP-AL00005 - 22

Comment: Second, even this 8dBA increase underestimates total construction noise because it does not include any noise from construction traffic. The DEIR inexplicably separates its analyses of construction traffic noise from the noise generated by construction activities on the Project site. In reality, however, both of these noise sources will contribute to neighbors' sound environment. Accordingly, their impacts must be considered together. To undertake this analysis, the DEIR must first be revised to actually quantify construction traffic noise. At present, the document only quantifies traffic volumes. See SAIP DEIR at IV-225. This technique wholly fails to disclose the noise associated with those traffic volumes. This technique also ignores the fact that the bulk of the increase in construction traffic will be heavy trucks, which generate significantly more noise than other vehicle types. Accordingly, the DEIR must be revised to include an actual noise analysis of construction traffic, which must account for the elevated noise levels from heavy truck traffic.

Response: Please see Responses to Comments SAIP-AL00005-80 and SAIP-AL00005-88 regarding construction traffic noise analysis and the cumulative impact of both construction equipment and traffic noise.

SAIP-AL00005 - 23

Comment: Third, CEQA requires that an EIR identify feasible mitigation measures that will minimize or avoid the significant impacts of a project. CEQA Guidelines § 15126.4(a). The SAIP DEIR fails to follow this mandate with regard to the Project's construction noise impacts. Instead of actually identifying mitigation measures, the DEIR merely promises that measures will be identified at some later time: "A Construction Noise Control Plan will be prepared...." SAIP DEIR at IV-187. This approach to mitigation plainly violates CEQA. The DEIR must identify concrete mitigation measures prior to Project approval; it may not defer their formulation. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."); see also *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal. App. 3d 61, 79-80; *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359, 1396; *Sundstrom v. Mendocino County* (1988) 202 Cal. App. 3d 296, 307 ("The requirement that the applicant adopt mitigation

measures recommended in a future study is in direct conflict with the guidelines implementing CEQA."). Moreover, it is impossible to tell from the DEIR which mitigation measures will actually be adopted. Obscuring the mitigation in this way defeats the purpose of CEQA, which is to expose such decisionmaking to public scrutiny and participation.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. Section 4.5.5.2 of the Draft EIR addresses the application of LAX Master Plan Commitments and Mitigations Measures related to noise impacts, and describes the feasibility of additional mitigation measures (Section 4.5.8.2).

The construction contract specifications for SAIP include environmental requirements. First, the Contractor shall designate a Contractor Environmental Compliance Officer (CECO) to ensure the implementation of all components of the construction-related environmental requirements through management direction, compliance monitoring, direct inspections, maintenance of records, and investigations of complaints. The Contractor shall prepare for submittal and approval by LAWA a project Construction Noise Control Plan (CNCP) as specified in the LAX Master Plan Mitigation Measure MM-N-5. The plan shall describe how the Contractor will manage construction related to noise. The intent is to control noise impacts to noise sensitive areas. Specific items include:

Construction equipment not complying with the requirements of the CNCP shall be replaced with compliant equipment except where specifically approved by the Engineer. The Contractor shall remedy environmental malfunctions within 24 hours of discovery of such or the equipment shall be removed from the site.

All construction equipment with stationary internal combustion engines, but without enclosures, (such as pumps and generators) that are operated during noise sensitive times of day as defined by the Draft City of Los Angeles CEQA Thresholds Guide and operated within 600' of a noise sensitive area shall have barriers provided to mitigate noise. Alternately, the Contractor shall implement other noise mitigation measures as approved by the Engineer.

The Contractor shall utilize rubber-tired or rubber-tracked equipment, if feasible, as determined by the Engineer for the type of work being performed. The Contractor shall document the use of all tracked equipment and why a rubber tired unit would not suffice.

At no time shall any truck equipped with an "engine brake" utilize the engine brake while on site or on designated routes. Construction equipment noise control devices shall be properly installed, maintained and utilized by the Contractor.

The Contractor shall replace equipment not complying with the requirements of the CNCP with compliant equipment, except where specifically approved by the Engineer. The Contractor shall remedy non-compliant equipment within 24 hours or the equipment shall be removed from the project site.

To the maximum extent possible, the Contractor shall schedule the timing and sequence of the noisiest on-site construction activities to avoid sensitive times as specified.

LAWA will provide through the SAIP Construction Manager acoustical engineers to review and monitor compliance of the CNCP.

In response, page IV-187 of the Draft EIR has been revised to include the specifics mentioned regarding the LAX Master Plan Mitigation Measure MM-N-7. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AL00005 - 24

Comment: Despite the vague, deferred nature of this mitigation, the noise analysis assumes that certain measures, such as the hourly activity factors of Table 4.5-24, will be implemented. This mitigation has not been adopted – in fact, the DEIR itself says that it "may be" a part of the Construction Noise Control Plan. SAIP DEIR at IV-188. It is thus wholly inappropriate to include it in the noise calculations. Furthermore, even if the EIR actually adopted the measure as stated, it would be insufficient to support the determination that construction noise impacts would be less than

significant, because the measure, like the rest of the construction noise measures, is unenforceable. Mitigation measures must be more than mere suggestions; they must be concrete and enforceable.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

Please see Response to Comment SAIP-AL00005-94 regarding the assumptions made in Table 4.5-24 of the SAIP Draft EIR. Please see Responses to Comments SAIP-PC00010-13 regarding the Construction Noise Control Plan and SAIP-PC00006-52 regarding LAWA's lead responsibility in implementing the LAX Master Plan Mitigation Monitoring and Reporting Program.

SAIP-AL00005 - 25

Comment: 2. The SAIP DEIR's Analysis of Construction-Period Aircraft Noise Fails to Meet the Requirements of CEQA and Berkeley Jets Because it Uses an Inadequate Measure of Single-Event Noise Impacts

A key aspect of an airport's environmental impacts is the effect of single, very loud events on people in their homes, especially at night. To meet CEQA's requirement of full disclosure of environmental impacts, an EIR must "measure how many high-noise events will take place during the noise-sensitive nighttime hours [and] describe the effects of noise on normal nighttime activities, such as sleep." *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal. App. 4th 1344, 1355. The SAIP DEIR fails to meet either element of this requirement.

Response: Nighttime awakening impacts are evaluated and discussed in Section 4.5.6.1.4 of the Draft EIR. The approach used to disclose and evaluate single event noise nighttime awakening impacts in the SAIP Draft EIR is consistent with the approach employed for those purposes in the LAX Master Plan Final EIR.

While the court in *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* ruled that an EIR may be required to evaluate the significance of single event noise nighttime awakening impacts, it did not mandate adoption of a particular manner of disclosure of those impacts, or a particular threshold of significance for those impacts, leaving discretion to lead agencies to select their own approach, based on the agency's assessment of what would be appropriate, meaningful and useful in light of local conditions.

Therefore, LAWA, in preparing the LAX Master Plan Final EIR, undertook a comprehensive search of available literature, studies and technical information to establish an approach to disclosure of, and thresholds of significance for, single event noise nighttime awakening impacts, appropriate to LAX and its surrounding neighborhoods. (See LAX Final Master Plan EIR, Section 4.1.2.1.3.1, and authorities cited therein.) In developing the standard of significance for single event noise nighttime awakening impacts, LAWA's experts relied heavily on a report issued in 1997 by the Federal Interagency Committee on Aviation Noise ("FICAN"), considered to be the most generally accepted study of the relationship between single event noise and nighttime sleep disturbance. (See FICAN. *Effects of Aviation Noise of Awakenings from Sleep*, June 1997, www.fican.org/pages/sleep.html.) The 1997 FICAN report, relying on a number of previous field studies, developed a formula that could be used to compute the percentage of people who may be awakened by certain levels of single event noise. The FICAN report also recommended use of a graphic contour line to disclose predicted awakenings caused by nighttime single event noise.

Consistent with the threshold of significance for and manner of disclosure of single event noise nighttime awakening impacts in the LAX Master Plan Final EIR, the SAIP Draft EIR uses a standard of significance of an exterior nighttime single event noise level (SEL), in response to which at least 10 percent of the exposed population would be awakened at least once in an average 10 day period, assuming windows are open. This threshold is statistically equivalent to a nighttime single event noise level that would awaken at least 1 percent of the exposed population on an average night. (See Supplemental Aircraft Noise Technical Report, Appendix SC-1 to the LAX Master Plan Final EIR, page 140.) A 94 dBA SEL was selected because it represents the level at which 10 percent of the population would be expected to be awakened at least once in an average ten-day period. A more comprehensive discussion related to the evolution of this threshold is available in

Section 4.1.2.1.3.1 of the LAX Master Plan Final EIR, and studies and research referenced therein on page 4-23 and 4-24.

The SAIP Draft EIR (consistent with the approach used in the LAX Master Plan EIR) then uses FAA's Integrated Noise Model (INM) to compute a contour representing the 94 dBA SEL sleep disturbance threshold. All flight operations that occurred in 2003 (collected by LAWA's noise monitoring system) are considered in the calculation of the baseline conditions 94 dBA SEL contour. The frequency of at least once in ten days represents a sum of all operations that carry a level of 94 dBA SEL. For example, if an operation occurred once in the year, it would have an average daily frequency of 0.003 events. If 33 events at the same level occurred during the course of the year, the frequency would sum to 0.1 operations. Therefore, the contour line is indicative of those locations where at least 33 separate events during the year with noise levels of 94 dBA SEL, with sites within the contour experiencing a greater number of single event noise nighttime awakening events, and sites outside the contour experiencing a lesser number. The SAIP Draft EIR compared the baseline 94dBA SEL contour to a contour representing conditions during construction of the SAIP, to disclose the extent and frequency of significant single event noise nighttime awakening impacts due to construction-related activities. Therefore, contrary to the comment's allegation, the SAIP Draft EIR adequately discloses, and evaluates the significance of, information about how many high-noise events will take place during noise-sensitive nighttime hours, and also the night awakening effects of those events on the sleep of exposed persons.

For additional information on these topics, please see Appendix M of the SAIP Draft EIR. Please refer to Topical Response TR-SAIP-N-1 regarding noise impacts associated with the SAIP, and to Responses to Comments SAIP-AL00005-26 through SAIP-AL00005-29, SAIP-AL00005-71 through SAIP-AL00005-72, and SAIP-PC00006-82.

SAIP-AL00005 - 26

Comment: First, the DEIR does not include sufficient information about the frequency of high-noise events. The DEIR's single-event noise analysis starts with the idea that an outside single-event sound exposure level ("SEL") of 94 dBA will awaken 10% of the exposed population. SAIP DEIR at IV-154-55. It then generates a contour line on a map, enclosing all points exposed to 94 dBA SEL at least once every ten days. SAIP DEIR at IV-183, 209. Although this convoluted series of calculations produces a contour line that technically includes information regarding the frequency of high-noise events and the effect of those events on sleep, compressing all of that data into a single statistic defeats the essential purpose of the Berkeley Jets standard: "enabl[ing] nearby residents to understand how the [Project] will affect their lives." Berkeley Jets, 91 Cal. App. 4th at 1377 (quotation marks omitted). Looking at the SAIP DEIR's figures, a person who lives inside the 94 dBA SEL contour would have no way of knowing how frequently he or she would actually be exposed to single noise events of 94 dBA or higher. Presumably, the residents deep inside the contour line close to the airport – will experience very loud events even more often than one in ten days. The SAIP DEIR's analysis does not provide the necessary information to enable someone residing within the contour to determine what this frequency and intensity would be.

Response: The methodology used to assess aircraft single-event significant impacts on nighttime awakenings is consistent with the LAX Master Plan Final EIR. Please see Response to Comment SAIP-AL00005-25 regarding the LAX nighttime awakening threshold of significance.

The frequency of at least once in ten days represents a sum of all operations that carry a level of 94 dBA SEL. In other words, the 94 dBA SEL contour connects FAA Integrated Noise Model (INM) calculated points that have at least 0.1 number of events that meet or exceed an SEL noise event level of 94 dBA SEL on an average annual night. Another term for this contour is Number of Events (0.1 events or more) Above 94 dBA SEL. From another perspective, if an operation occurred once in the year, it would have an average daily frequency of 0.003 events. If 33 events at the same level occurred during the course of the year, the frequency would sum to 0.1 operations. Therefore, the 94 dBA SEL contour line is indicative of those locations where at least 33 separate events during the year (0.1 events on an average annual night) with noise levels of 94 dBA SEL. Even if an event occurred once per night, it would have been incorporated into the computation defining the contour line. Use of this contour provides an effective means to identify residences around the airport for planning purposes (similar to how the 65 CNEL contour is used) that are expected to be impacted by nighttime awakenings on an average annual night with a clear understanding that

some residences may experience a higher number events above 94 dBA SEL within the contour compared to those at the contour line.

The remaining portion of the comment pertains to supplemental information regarding aircraft noise impact analysis. The purpose of supplemental noise data is to assist the reader in coming to a better understanding of the impact analysis conclusions. The information is not used to determine significant impact. Appendix M of the SAIP Draft EIR provides several types of metrics and associated levels for 592 grid points (412 noise-sensitive facilities and 180 uniformly-spaced grids with an interval of 3,000 feet). The grid points are also illustrated on Exhibits 4.5-1 through 4.5-4 of Section 4.5 of the SAIP Draft EIR. There are several grids located within the 94 dBA SEL contour. The type of metrics and format of which they are presented has been accepted and used by other agencies like the FAA when evaluating aircraft noise impacts for an EIS. The FAA has used similar metrics and reporting for EIS evaluations such as the O'Hare Modernization Program Final EIS (August 3, 2005) and the LAX Master Plan Final EIS. The grid points, metrics and report format is consistent with the LAX Master Plan Final EIR, which provides the reader the ability to conduct comparisons among the noise analysis for both the SAIP Draft EIR and LAX Master Plan Final EIR.

Please refer to Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP. Please also refer to Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29 and SAIP-AL00005-71 through SAIP-AL00005-72.

SAIP-AL00005 - 27

Comment: Furthermore, many people outside the contour will be awoken regularly, but they receive no information whatsoever about their exposure to very loud single events. They have been excluded by the DEIR's arbitrary choice to consider only events that would wake 10% of the population. As discussed below and in the Aviation Systems Report, the conclusion that 94 dBA SEL will wake 10% of the population is drawn from a study that by its own terms should not be used in this manner. Moreover, neither the SAIP DEIR nor the sections of the MPEIR to which it refers offer any rationale for selecting 10 % awakenings as the single data point to report, let alone the substantial evidence that CEQA requires to support a significance threshold. Nat'l Parks & Conservation Ass'n v. County of Riverside (1999) 71 Cal. App. 4th 1341, 1357. This decision, like the choice to provide only a single contour line, deprives residents of the information mandated under Berkeley Jets.

Response: Please see Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29 regarding the nighttime awakening threshold of significance. Please also see Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP.

SAIP-AL00005 - 28

Comment: The DEIR fares no better at fulfilling the other half of the Berkeley Jets mandate: "describ[ing] the effects of noise on normal nighttime activities, such as sleep" Berkeley Jets, 91 Cal. App. 4th at 1355. The DEIR's single-event noise measurement is based on "Effects of Aviation Noise on Awakenings from Sleep, a 1997 report prepared by the Federal Interagency Committee on Aviation Noise ("FICAN Report") (attached as Exhibit 5), which presented a dose-response curve to predict the percentage of people who would be awakened at various SELs. See MPEIR, Appx. S-C1. The FICAN Report itself repeatedly recognizes that it has numerous analytical limitations. In particular, its findings only describe the responses of adults to single noise events. FICAN Report at 7. Full disclosure of environmental impacts certainly requires analyzing the effects of single events on children, who may be more vulnerable to awakening, and whose health may be more affected by it. The DEIR fails to analyze and disclose these potentially significant effects.

Response: Please see Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29 regarding the LAX nighttime awakening threshold of significance. The methodology used to assess aircraft single-event impacts on nighttime awakenings is consistent with the LAX Master Plan Final EIR.

While sleep disturbance and awakenings have been the subject of much research, the Federal Interagency Committee on Aviation Noise (FICAN) in a 1997 report selected one study as the most widely accepted information upon which to base the selection of a defensible relationship between single event noise and awakenings, and is considered the best available science at this time. The

FICAN report cites a study conducted by Finegold and Fidell, which relates the proportion of persons awakened by noise events at differing Sound Exposure Levels (SEL). The Finegold report includes a formula that allows the user to compute, for any given SEL, the percentage of the population that may be awakened by an aircraft single event. LAWA is not aware of specific information that establishes a widely accepted relationship between aircraft noise and awakenings for children. The commentor does not suggest such a relationship or recommend a threshold of significance.

SAIP-AL00005 - 29

Comment: Furthermore, the study's findings only track those events that fully awaken a person. However, "[s]leep disturbance also can be defined as arousals or gross bodily movement... which may or may not result in actual awakenings." FICAN Report at 3. If, as seems likely, such sub-awakening arousals affect health by depriving people of full sleep, then a threshold of significance based only on full awakening does not present a complete picture of noise impact. By relying on this threshold, the DEIR fails to fully disclose the Project's significant environmental impacts.

Response: Please see Response to Comment SAIP-AL00005-25 regarding the LAX nighttime awakening threshold of significance and Response to Comment SAIP-AL00005-28 regarding the best available science used to determine a defensible threshold of significance. On page 4-23 and 4-24, Section 4.1 of the LAX Master Plan Final EIR provides citations for all the recent research compiled and evaluated by LAWA in determining the appropriate threshold of significance for nighttime awakenings associated with LAX aircraft. The commentor's reference to FICAN is correct. However, FICAN does not provide or recommend an impact threshold regarding arousal or gross-body movement caused by aircraft noise. Other articles listed also discuss similar topics, but none provide or agree upon a threshold of significance. The FICAN findings of the relationship between SEL and percentage of people potentially awakened is considered the most widely accepted method of predicting potential sleep disturbance, and served as the primary source by LAWA in deriving the LAX nighttime awakening threshold of significance.

Please refer to Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP and Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-28 and SAIP-AL00005-71 through SAIP-AL00005-72.

SAIP-AL00005 - 30

Comment: 3. The SAIP DEIR Measures Construction-Period Aircraft Noise Impacts Against an Inadequate Threshold of Significance.

Each of the thresholds used to measure ambient noise impacts from aircraft during the SAIP construction period only considers properties to be significantly impacted if they are subjected to noise of 65 dBA CNEL or higher. By the DEIR's reckoning, any home whose environment is quieter than 65 dBA CNEL is not significantly impacted, no matter how much noise the SAIP has added. As detailed in the Aviation Systems Report, 65 dBA CNEL is an outdated threshold. Research over the last two decades has shown that noise levels quieter than 65 dBA CNEL can have tremendous impacts on people's lives. By relying on the 65 dBA CNEL threshold, the DEIR greatly understates the Project's significant impacts. Thousands more individuals and residences will suffer significant noise impacts from the Project than the DEIR reports. This failure to disclose the full impact of the SAIP "precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." Berkeley Jets, 91 Cal. App. 4th at 1355. It therefore renders the SAIP DEIR legally inadequate.

Response: The content of this comment is similar to comment SAIP-AL00005-67; please see Response to Comment SAIP-AL00005-67. See also Topical Response TR-SAIP-N-1 regarding off-airport noise impacts of SAIP construction-related activities.

SAIP-AL00005 - 31

Comment: Moreover, as detailed in our November 4, 2003 Comments, the SAIP DEIR improperly continues to

ignore the noise standards set forth in El Segundo's noise ordinance. Under the CEQA Guidelines, Appendix G, Section XI, a lead agency must consider whether a proposed project would generate noise, or expose persons to noise, in excess of local standards set forth in general plans and ordinances. El Segundo's general noise standards are set forth in its Noise Ordinance, section 7-2-4. For residential property, a noise exceeding five (5) dBA above the ambient noise level is prohibited; for commercial property, noise exceeding eight (8) dBA above ambient noise levels is prohibited. This standard is ignored by the Master Plan analysis upon which the SAIP DEIR relies.

Response: Consistent with the standards presented in the City of El Segundo Noise Ordinance (Ordinance 1242) Section 4.5.6.1.2 of the Draft EIR discloses noise-sensitive uses that would be exposed to an increase of 3 CNEL within the 60-65 CNEL or 5 CNEL below 65 CNEL for informational purposes. Although these noise level increases are not considered to be significant, no noise-sensitive uses within the City of El Segundo were exposed to these noise increases. Therefore, SAIP construction would not conflict with policies contained in the Noise and Housing Elements of the City of El Segundo General Plan, which focus on reducing incompatible uses exposed to noise. In addition no new noise-sensitive uses would be newly exposed to noise levels of 65 CNEL or greater, to an increase of 1.5 CNEL within the 65 CNEL contour, or to significant CNEL levels in the City of El Segundo. Additionally, El Segundo does not show any noise-sensitive uses newly exposed to high single event noise levels as defined by the 94 dBA SEL noise contour, compared to the 2003 Baseline conditions.

SAIP-AL00005 - 32

Comment: 4. The SAIP DEIR Completely Fails to Analyze the Post- Construction Operational Noise Impacts of the Project.

The SAIP DEIR's analysis of the noise impacts of the Project stops short at the end of the construction period. For all of the noise impacts of aircraft using the reconfigured airfield, the DEIR relies solely on the analysis presented in the MPEIR. The most glaring flaw in this approach is its use of a legally inadequate environmental baseline, as discussed above.

Response: This comment pertains to the overall LAX Master Plan Final EIR and does not pertain to, or raise, environmental issues specific to the SAIP or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan Final EIR because the CEQA review process for the LAX Master Plan was completed in December 2004. Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-AL00005 - 33

Comment: Furthermore, the MPEIR's analysis of the Project's noise impacts, incorporated by reference into the SAIP DEIR, suffers from many of the flaws identified here.⁵ For instance, like the SAIP DEIR's analysis of construction-period aircraft noise, the MPEIR's aircraft noise analysis fails to properly analyze single-event noise impacts and uses an arbitrary and outdated CNEL threshold.

⁵ Other deficiencies in the MPEIR's analysis are detailed in our prior comments.

Response: The comment pertains to LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-AL00005 - 34

Comment: Furthermore, the SAIP DEIR fails to consider the noise impacts of so-called New Large Aircraft. The Airbus A380, the largest commercial passenger aircraft in the world, will soon be a part of the fleet at LAX. At 200 feet wide, the reconfigured Runway 25L-7R will be the only runway at the airport

able to accommodate the A380. This huge aircraft's presence will have potentially large impacts on the noise that the southern airfield produces. As detailed in the Aviation Systems Report, however, the MPEIR's noise analysis, and therefore the SAIP DEIR's, completely fails to account for this major new aircraft. Regardless of whether the MPEIR itself is rendered inadequate by its failure to account for the A380 (and we maintain that it is), this gap in its analysis means that the SAIP DEIR may not rely on the previous document. Once again, LAWA impermissibly invokes the tiering concept as if it gave the SAIP DEIR license to present inadequate, outdated analyses of the SAIP's environmental effects.

The imminent introduction of the A380 into the fleet at LAX represents important new information that renders the MPEIR's noise analysis inadequate for evaluating the SAIP. LAWA cannot now claim that determining the A-380s contribution to the Project's impacts would require speculation. The aircraft is now in production and could be tested to determine its noise attributes. See, e.g., "Superjumbo" A380 Lands Safely (April 28, 2005), in CNN.COM (attached hereto as Exhibit 6). It is LAWA's obligation to put forth its best efforts to gather all of the information needed to fully evaluate the Project's impacts, including the data needed to analyze and disclose the effects of the A380's use of Runway 25L. Berkeley Jets, 91 Cal. App. 4th at 1370-71 ("An agency must use its best efforts to find out and disclose all that it reasonably can.") (emphasis supplied by the court). These efforts include conducting a "thorough investigation." *Id.* To date, LAWA has made essentially no effort at all to present the required noise analysis of the A-380. Thus, the SAIP DEIR will remain inadequate until LAWA undertakes the thorough, good-faith effort to do so.

Response: Based on LAWA consultation with Airbus, the first A380 deliveries that are expected to operate at the airport has been delayed. The expected date of initial service is now March 2007. In response to the current information, page II-2 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. Therefore, A380 service is not expected to occur during the closure of Runway 7R-25L.

As explained in Response to Comment FAL00001-4 in FAA's Record of Decision on the LAX Master Plan, the LAX Master Plan Final EIR's analysis of aircraft noise impacts accounts for A380 operations. A380 aircraft are included within the group of New Large Aircraft (NLA) represented for noise assessment purposes by the 747-400. Certificated noise data was not available for the A380 aircraft as of the date of the LAX Master Plan Final EIS. This remains true as of the date of the SAIP Final EIR. Based on LAWA consultation during the LAX Master Plan EIR process, the FAA's Office of Environment and Energy has advised the use of the 747-400 as a substitution to represent the noise and operating conditions of the A380 for noise modeling. The noise characteristics of the A380 cannot be more clearly defined until it is FAA-certificated for its noise characteristics during flight testing pursuant to FAR 36 procedures. LAWA does not have the legal authority to conduct FAR 36 certification procedures. These procedures are conducted by the manufacturer (Airbus) and reviewed and accepted by the FAA as part of the aircraft United States certification process.

Please refer to Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-AL00005 - 35

Comment: The SAIP's exclusive reliance on the MPEIR's post-construction noise impacts analysis violates CEQA for another reason as well. As detailed in our prior comments, the MPEIR fails to account for the fact that, under the so-called "Consensus Plan" approved by the Los Angeles City Council, certain Master Plan projects have been "yellow-lighted." Contrary to the MPEIR's assumptions and analysis, these yellow-lighted projects will, in all likelihood, never be built.

Removing yellow-lighted projects from the Master Plan Project has serious environmental ramifications because the MPEIR, and thus by extension the SAIP DEIR, relies on many of the yellow-light projects to mitigate or avoid impacts in areas such as noise, traffic, and air quality. Because these impacts will no longer be mitigated or avoided, the SAIP DEIR must be revised to fully disclose what the SAIP's actual impacts will be in their absence.

For example, one of the yellow-lighted projects that is unlikely ever to proceed is the northern runway complex reconfiguration. LAWA relied on that configuration when it conducted the MPEIR's

noise analyses, noting that reconfiguring the northern complex would help balance the southern runway complex reconfiguration and shift noisy heavy aircraft from the south to the north side of LAX. If the northern runway complex reconfiguration never occurs, these noisy aircraft will remain concentrated on LAX's south side. The resultant noise impacts will differ significantly from those disclosed in the MPEIR and now in the SAIP DEIR.

Nor is it possible, without further study, to discern the actual impacts of removing the yellow-lighted projects from the Master Plan, because the MPEIR document did not break down its analysis of noise impacts on a project-by-project basis. Thus, the degree of mitigation purportedly attributable to the yellow-lighted projects is impossible to determine.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The Los Angeles City Council approved Alternative D in its entirety. To state that any portion of the LAX Master Plan would not be implemented is speculative. It would be inappropriate for the SAIP Draft EIR to engage in such speculation and to base any of its environmental analysis on such a speculative assumption. CEQA Guideline 15145.

Under the approved LAX Master Plan and LAX Specific Plan, all LAX Master Plan Projects can be implemented, including those referred to as "yellow light" projects. All Projects are subject to one tier of review called LAX Plan Compliance Review. An additional tier of review, called an LAX Specific Plan Amendment Study, was created for those Master Plan Projects that the City Council considered in need of more rigorous and comprehensive analysis. It is these Master Plan Projects that are the so-called "yellow light" projects. It is important to note that the term "yellow light" is never actually used in the Specific Plan. Rather, the Specific Plan identifies the Projects, which require a LAX Specific Plan Amendment Study. The so-called "yellow light" projects have not been eliminated from the LAX Master Plan and it would be speculative to assume at this time that they will be eliminated. The SAIP is the first component of the LAX Master Plan to undergo a project-specific EIR. Therefore, to presuppose that any future project or aspect of the Master Plan would not be implemented would be inappropriate for the assessment of the environmental effects of the SAIP and would result in an inaccurate assessment of the potential environmental impacts of the project.

SAIP-AL00005 - 36

Comment: 5. The SAIP DEIR Must Consider Mitigating Operational Noise Impacts by Eliminating the Requirement that Homeowners Grant Avigation Easements in Exchange for Noise Insulation.

The SAIP DEIR, as discussed above, fails to analyze the operational noise impacts of the Project properly and must reevaluate those impacts using an updated environmental baseline. The DEIR is similarly obliged to identify and analyze all potentially feasible mitigation measures that will avoid or minimize the significant post-construction operational noise impacts of the SAIP. An EIR must discuss each feasible mitigation measure available to reduce or eliminate a given impact. CEQA Guidelines § 15126.4(a)(1)(B).

LAWA's current mitigation for its noise impacts is centered on the Aircraft Noise Mitigation Program ("ANMP"), which funds programs in affected jurisdictions to provide residential sound insulation at no cost to property owners. The ANMP, however, has generally not been successful in bringing the airport's neighbors relief from its extraordinary noise impacts. As illustrated in Table 2 (attached hereto as Exhibit 7), over the last five years, the ANMP has barely made a dent in the number of homes subject to aircraft noise of 65 CNEL or higher. At the beginning of 1999, about 92% of impacted dwelling units had no sound insulation. By the middle of 2004, the ANMP had shrunk that figure only to 80%. This small improvement is cold comfort to the tens of thousands of people who are still exposed to aircraft noise in their own homes, day and night.

At least one feasible modification to the ANMP would greatly improve its efficacy as mitigation, and therefore must be considered in the DEIR. Currently, the ANMP requires that every homeowner accepting funding from LAWA for sound insulation – except those residing in the City of Inglewood – grant LAWA an avigation easement over his or her home. The SAIP DEIR must consider amending the ANMP to eliminate this requirement for all affected residents. By granting such an easement, homeowners give up property rights in perpetuity. LAWA may thenceforth subject that property to any amount of noise and other aviation-related damages, and the property owner has no

legal recourse. This required exchange is not only blatantly unfair to property owners, it impedes the effectiveness of the ANMP. The City of El Segundo does not accept LAWA funding for its sound insulation program precisely because the easement requirement is too onerous. El Segundo can thus provide only part (approximately 80%) of the cost of insulation using funds received from FAA, and property owners must pay the rest. It is likely that property owners in other jurisdictions are also unwilling to give up the rights that LAWA demands. Eliminating the easement requirement would bring many more homeowners into the reach of the ANMP and would increase the program's effectiveness at mitigating the SAIP's significant noise impacts.

LAWA's demonstrated ability to provide residential sound insulation to Inglewood residents without requiring an avigation easement shows, at the very least, that such a mitigation measure would be potentially feasible in other jurisdictions. The SAIP DEIR's failure even to analyze such a mitigation measure renders that document per se invalid. *Los Angeles Unified School District v. Los Angeles* (1998) 58 Cal. App. 4th 1019, 1029 ("LAUSD") (failure to meaningfully respond to proposed mitigation measures requires invalidation of EIR unless proposed measure is "facially infeasible").

Moreover, CEQA's substantive component mandates that the agency must adopt such a modified ANMP program for El Segundo and other jurisdictions if it plans to approve the SAIP. CEQA's core substantive component – with which every public agency must comply – requires that LAWA "shall mitigate or avoid the significant effects... of projects that it carries out or approves whenever it is feasible to do so." Pub. Res. Code § 21002.1(b) (emphasis added). Because LAWA has already demonstrated the feasibility of amending the ANMP program to eliminate the avigation easement requirement for Inglewood, it cannot in good faith maintain that such an amendment is infeasible elsewhere. Accordingly, if and when LAWA revises the SAIP DEIR to address its inadequacies, it cannot lawfully adopt the SAIP unless it first adopts a mitigation measure that amends the ANMP to eliminate the avigation easement requirement in all jurisdictions.

6 In 2001 LAWA and the City of Inglewood entered a Memorandum of Understanding, attached to this letter as Exhibit 8, by which LAWA agreed to provide ANMP funding to Inglewood with no easement requirement.

Response: Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP EIR, Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP, and TR-SAIP-N-1 regarding noise impacts of construction-related activities under the SAIP.

As discussed in Section 4.5.8.1.1, the existing ANMP will be accelerated during the term of the SAIP as indicated in MM-LU-1. MM-LU-1's provision to expand and revise the ANMP is intended to mitigate the aircraft noise impacts (discussed in Section 4.1 of the LAX Master Plan Final EIR) associated with the full implementation of the Master Plan. As stated in the September 2004 LAX Master Plan Mitigation Monitoring and Reporting Program ("LAX Master Plan MMRP"), LAWA shall revise or expand the ANMP to accelerate the rate of land use mitigation to eliminate noise impact areas in the most timely and efficient manner possible. LAWA shall reevaluate whether changes to avigation easement requirements with sound insulation mitigation would serve the purpose of accelerating the rate of land use noise impact mitigation in the most timely and efficient manner possible. (See description of MM-LU-1 in LAX Master Plan MMRP, page 10.)

However, changes to avigation easement requirements, even if determined to be a feasible means of accelerating the sound insulation program, could not feasibly mitigate the aircraft noise impacts of changes to aircraft operations due to construction of the SAIP. Due to the lengthy implementation process associated with soundproofing (with or without changes to the avigation easement requirement) and the short-term and temporary nature of the SAIP-construction aircraft noise impacts, changes to avigation easement requirements could not result in appreciable avoidance or lessening of the significant aircraft noise impacts identified in the SAIP EIR. (See Topical Response TR-LU-3.8 in the LAX Master Plan Final EIR.)

SAIP-AL00005 - 37

Comment: B. The SAIP DEIR Impermissibly Defers Mitigation for the Project's Construction-Period Air Quality Impacts.

As set forth in our September 9, 2005, letter requesting an extension of time to comment on the SAIP DEIR's air quality analysis, LAWA's delay in providing requested air quality data has largely precluded El Segundo from meaningfully commenting on this issue. Accordingly, El Segundo intends to submit more detailed comments on air quality within the requested time extension. Pending preparation of those comments, we will confine our remarks to the DEIR's blatant disregard for CEQA's requirement that an EIR must identify mitigation measures that avoid or minimize significant impacts. The SAIP DEIR identifies no specific mitigation for construction-period air quality impacts. Instead, it relies entirely on the menu of possible measures set forth in the MPEIR. The MPEIR's measures, however, are both incomplete and impermissibly deferred. By the MPEIR's own admission, it does not set forth a complete list of feasible construction mitigation measures. MPEIR at 4-725. Moreover, in its comments on that document, El Segundo identified many other feasible measures for reducing construction emissions.

Although the MPEIR promises that specific mitigation will be formulated "prior to commencement" of the SAIP, MPEIR at 4-724, the SAIP DEIR does not fulfill that promise. Instead, it merely repeats the impermissible deferral, stating that "[t]he specific means for implementing the mitigation measures described in section 4.3.5 are in the process of being formulated." SAIP DEIR at IV-121. The measures "described in section 4.3.5," are merely the MPEIR's laundry list, including the vague statement that "[o]ther feasible mitigation measures may be defined" later. Deferring mitigation in this manner is impermissible under CEQA. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."); Sundstrom, 202 Cal. App. 3d at 307 ("The requirement that the applicant adopt mitigation measures recommended in a future study is in direct conflict with the guidelines implementing CEQA.").

Response: Regarding the commentor's request for an extension and the assertions regarding the delay in the commentor's air quality comments, please see Response to Comment SAIP-AL00002-1. Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

During preparation of the LAX Master Plan Draft EIS/EIR, LAX Master Plan Supplement to the Draft EIS/EIR and the LAX Master Plan Final EIR, an extensive list of potential air quality mitigation measures was evaluated by the LAX Master Plan Team. In general terms, these measures were segregated into three broad categories: (1) construction, (2) airport operational and (3) surface transportation. This initial list was compiled from a variety of sources including mitigation measures already in-place or planned for other airports across the United States (including LAX) and around the world; measures contained in publications by the U.S. EPA, CARB and SCAQMD; and measures that were developed specifically for the overall Master Plan project.

Overall, more than 300 individual measures were considered in terms of their potential effectiveness, enforceability and applicability to the LAX Master Plan. The listing of all potential measures considered for the overall Master Plan project is included in a memorandum from Anthony Skidmore, CDM, to Herb Glasgow, LAWA, entitled "Inventory of Air Quality Mitigation Measures Considered in Conjunction with the LAX Master Plan EIS/EIR" and dated December 6, 2004. Of these, 19 were obtained from City of El Segundo comments (comment letter AL00033 in Part II-Volume 3 of the Final EIS), 18 were obtained from the South Coast Air Quality Management District comments (comment letter AR00004 in Part II-Volume 2 of the Final EIS), and 7 were obtained from the other public comments. Further, over 100 suggested measures were either part of the Master Plan design, part of an ongoing LAWA program, or required by existing regulations and could not be categorized as mitigation. Those that were already in-place at LAX or otherwise required by regulation were identified to avoid "double-counting" their air quality benefits. Using this refined list of air quality mitigation measures, combined with agency and public comments received regarding mitigation, the LAX Master Plan Team developed a list for implementation. Those mitigation measures that were included in the LAX Master Plan Final EIR were adopted as part of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) for the LAX Master Plan.

LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the MMRP. The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. The MPAQ will define specific, enforceable emission reduction measures for three categories of emission - construction, transportation, and operations - and will define the process to be used to execute, monitor and report the implementation and completion of

the air quality mitigation measures. The MPAQ will be completed prior to the construction of the SAIP and the applicable components of the MPAQ will be made conditions of approval of the SAIP. As noted, at that time, those measures will be clearly defined, and they will be made enforceable as conditions of the SAIP. Even if certain measures remain to be developed, this would be consistent with CEQA's allowance for future mitigation measures where there is a reasonable plan for mitigation and the future mitigation has a clear and enforceable trigger mechanism. See, e.g., *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173.

The air quality impact analysis in the SAIP Draft EIR presents a conservative estimate of project-related emissions during the construction period because the emission reduction benefits of all recommended mitigation measures were not readily quantifiable and therefore were not factored into the calculations or impact assessment. Section 4.3.9 of the SAIP Draft EIR describes impacts to air quality that will be potentially significant and unavoidable.

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Comment: The DEIR compounds this flaw by taking credit for mitigation measures it has not actually adopted. Despite its failure to formulate concrete measures, the DEIR's quantification of air quality impacts assumes that several specific mitigation measures will be in place and that emissions will be accordingly reduced. SAIP DEIR at IV-114. This is totally inappropriate. The DEIR may only legitimately include in the impact calculations those measures that it has described concretely and adopted in such a way as to ensure their implementation and enforcement. CEQA requires that "feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." *Federation of Hillside & Canyon Ass'ns v. Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261-62 (vacating project approval because City failed to make "a binding commitment to implement the [traffic] mitigation measures... in a manner that will ensure their implementation") (emphases added); see also *Kings County*, 221 Cal. App. 3d at 729-30 (agency may not rely on mitigation measures of uncertain efficacy).

Response: Please see Topical Responses TR-SAIP-PD-2 regarding the relationship of the SAIP Tiered EIR and the LAX Master Plan EIR and TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

The air quality impact analysis in the SAIP Draft EIR presents a conservative estimate of construction-related emissions because the emission reduction benefits of all recommended mitigation measures were not readily quantifiable and therefore were not factored into the calculations or impact assessment. Emission reduction measures that were quantifiable included use of clean burning diesel fuel by heavy duty diesel vehicles and generators, particulate traps, replacement of portable diesel generators with electricity, and use of chemical stabilizers and water to reduce fugitive dust.

Because the SAIP Draft EIR is a tiered EIR, it appropriately relied on mitigation measures developed in the LAX Master Plan process and adopted as conditions of the Master Plan in reaching its impact conclusions. Pursuant to the LAX Master Plan, measures applicable to Master Plan projects such as the SAIP are required to be implemented. Where that is the case as to the SAIP, LAWA and the Board of Airport Commissioners will make those measures conditions of approval of the SAIP. Thus, there is no violation of CEQA's requirements here.

As discussed in Section 4.3.5, mitigation strategies that were not readily quantifiable are expected to further reduce construction-related emissions associated with the SAIP but these measure were not relied on for the final impact conclusion after mitigation because they could not be quantified.

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Comment: Furthermore, the DEIR's calculations use what appears to be an arbitrary mix of measures aimed at diesel generators. A third of the Project's generators are to be replaced with "electric generators," a third are to be run on clean diesel, and a third are to have clean diesel and particulate traps. SAIP DEIR at IV-114. Initially, it is unclear where the "electric generators" will be located, or even what an "electric generator" is. If this is supposed to mean that a third of the construction electricity demand

is to be met with utility-delivered electricity (from power poles or underground lines), then it is unclear why LAWA would not mandate that the Project rely even more heavily on such power, which will not generate any emissions at the airport. Similarly, if the logistics of the construction site require the use of some diesel generators, then both clean-burning fuel and particulate traps should be required for all generators. The DEIR must identify and adopt the most effective feasible mitigation measures, and must explain the reasoning behind its choices.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

Section 4.3.5 of the SAIP Draft EIR provides a discussion of air quality mitigation measures that were quantified in the Project (2005) emissions analysis. The emissions analysis conservatively assumed that Airport contractors would apply several emission reduction measures/strategies to address pollutant emissions from diesel generators including replacing the on-site diesel generators with power panels, using clean burning diesel fuel, and using particulate traps. Based on factors such as cost-effectiveness and technical feasibility, LAWA has determined through the Master Plan process that it is not feasible for Airport contractors to replace all on-site diesel generators with temporary power poles or power panels. Thus, LAWA has included additional measures such as cleaner burning fuel and particulate traps to further mitigate this impact.

The commentator notes that the term "electric generators" is used in Table 4.3-8 on page IV-114 of the Draft EIR. The typographic error is noted. The word "generators" should be "power." In response, page IV-114 has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AL00005 - 40

Comment: C. The SAIP DEIR's Analysis of and Mitigation for the Project's Impacts on Water Quality and Hydrology are Inadequate.

The SAIP will increase the impervious ground in the Project area by a significant proportion: 26% in the Santa Monica Bay drainage area and 14% in the Dominguez Channel drainage area. This increase will, of course, bring about a similarly significant increase in stormwater runoff entering these two drainage systems, thereby exacerbating the risk of flooding and increasing pollution in these waters. Despite these real dangers, the DEIR fails to adequately analyze and mitigate the Project's impacts on hydrology and water quality.

Response: As discussed on page IV-23 in Section 4.1.6.1 of the SAIP Draft EIR, the total impervious area within the project area would increase from 205.2 acres to 247.44 acres. The increased impervious surfaces would result in a similar relative increase in runoff volume and peak flow rates. The proposed storm drain system for the SAIP is similar to the existing system. Runoff would be collected via a system of paved swales, catch basins, and underground pipes. The drainage system design incorporates some existing facilities, as well as new facilities as shown on Exhibit 4.1-5 of the SAIP Draft EIR. The watersheds would continue to drain to their current outfall locations. All new facilities within the Project area have been sized to accommodate the increase in the impervious areas and to meet the project storm drain criteria of a 25-year return frequency design storm, which provides a higher level of on-airport protection than the minimum required 10-year design storm for which it is believed the existing system was designed. This includes a combination of using existing drainage infrastructure that has adequate capacity as well as constructing new drainage systems to accommodate the project design layout and to replace existing systems that have insufficient capacity. Based on the analysis presented in the SAIP Draft EIR, the increase in impervious surface area and associated change in hydrology/drainage would not be a significant impact; hence, does not require mitigation relative to hydrology/drainage impacts.

The SAIP Draft EIR addresses the potential water quality impacts associated with project-related changes in impervious area, and provides mitigation measures for water quality impacts. As discussed on page IV-27 in Section 4.1.6.2 of the SAIP Draft EIR, several different Best Management Practices (BMPs) were selected and are incorporated in the project design for different portions of the project watersheds depending upon the drainage configuration and the underlying soil conditions. Four different BMP treatment systems, including catch basin inserts,

bioswales, infiltration, and storm water treatment systems (SWTS), would be utilized in various locations to remove pollutants from storm water prior to discharge into the Santa Monica Bay and Dominguez Channel watersheds. These BMPs are generally similar to the conceptual BMPs identified in the Conceptual Drainage Plan and would treat runoff from similar tributary areas. With implementation of these types of measures, there would be no net increase in pollutant loads to surface water and the water quality impacts associated with the SAIP would be less than significant.

For a discussion of potential impacts to groundwater as a result of the decrease in impervious surfaces, please see Response to Comment SAIP-AL00004-15. In addition, please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed mitigation measures to address cumulative hydrology impacts.

SAIP-AL00005 - 41

Comment: 1. The SAIP DEIR Erroneously Excludes Several Pollutants From Its Analysis of Water Quality Impacts.

The DEIR's analysis of the Project's impacts to water quality in Santa Monica and San Pedro Bays is incomplete because it ignores several pollutants that are likely to be present in stormwater runoff from the airport and therefore are likely to degrade water quality. Nineteen pollutants of concern have been identified for Santa Monica Bay. SAIP DEIR at IV-10. The DEIR nevertheless only analyzes the Project's discharges of ten of these pollutants, and ignores the other nine. It offers no data or reasoning to support this decision, merely stating conclusorily that the ten analyzed were chosen "based on the reasonable likelihood that they would be present in storm water runoff from LAX." SAIP DEIR at IV-10. The DEIR does not even list the nine ignored pollutants. By using this dismissive approach, the DEIR fails to fulfill its role as an informational document and violates CEQA. An "EIR must contain facts and analysis, not just the agency's bare conclusions or opinions." Citizens of Goleta Valley, 52 Cal. 3d at 568 (quotation marks omitted). To present an adequate analysis of water quality impacts, the DEIR must at the very least present the entire list of pollutants of concern and explain what factors were relied upon in deciding to exclude half of them.

Moreover, the DEIR's implied assertion that certain pollutants are unlikely to occur in stormwater runoff from the Project area is impossible to effectively evaluate in the absence of the underlying facts and reasoning. Even so, there is ample reason to believe that several substances were wrongly omitted from analysis. As detailed in the letter from Dr. Phyllis Fox submitted as Attachment D to our September 18, 2001 Comments, the omitted pollutants (DDT, chlordane, PCBs, polynuclear aromatic hydrocarbon, mercury, cadmium, chromium, nickel, and silver) should have been included in the analysis of the SAIP. The importance of analyzing those contaminants is discussed in detail in Dr. Fox's letter. See September 18, 2001 Comments, Attachment D at 14-17. Fully analyzing storm water impacts requires the DEIR to consider several pollutants – dioxins, furans, and pesticides – not on the initial list of nineteen. Id. at 13-14, 18. Until it is revised to analyze these pollutants, the SAIP DEIR will remain inadequate.

Response: The SAIP Draft EIR is a "project" or "tiered" EIR under the LAX Master Plan Final EIR. Accordingly, the selection of model constituents for evaluation used in the LAX Master Plan Final EIR is also applied in the SAIP Draft EIR. Topical Response TR-HWQ-1 of the LAX Master Plan Final EIR discussed the selection of model constituents, as summarized below.

As indicated in the topical response, Section 4.7.2 of the LAX Master Plan Final EIR includes an evaluation of a number of constituents to determine if implementation of any of the alternatives would increase storm water pollutant loading to receiving waters within the Hydrology and Water Quality Study Area (HWQSA). The following constituents, identified in the Characterization Study of the Santa Monica Bay Restoration Plan - State of the Bay 1993, prepared by the Santa Monica Bay Restoration Project, as pollutants to Santa Monica Bay, were initially evaluated for use in modeling pollutant loading within the HWQSA:

- DDT
- PCBs
- PAHs
- Chlordane
- Tri-butyl Tin (TBT)

- Cadmium
- Chromium
- Copper
- Lead
- Nickel
- Silver
- Zinc
- Pathogenic Bacteria and viruses
- Total suspended solids
- Nutrients (total phosphorus, total Kjeldahl nitrogen)
- Trash and debris
- Chlorine
- Biochemical Oxygen Demand and Chemical Oxygen Demand
- Oil and Grease

A discussion is included in Section 2.2.2 of Technical Report 6 of the LAX Master Plan Final EIR of the expected occurrence of each of these constituents in storm water from LAX. Based on their probable occurrence in storm water at LAX and the availability of Event Mean Concentration (EMC) data, nine of the constituents of concern listed above were originally selected for which annual average pollutant loads in storm water from LAX were calculated. Later, an expanded list of modeled constituents was considered (see Section 3.3 of the Technical Report S-5 of the LAX Master Plan Final EIR). The expanded list included 24 constituents identified by commentors to the Draft EIS/EIR, as well as 11 constituents listed on the State of California's 303(d) list for non-attainment of water quality standards in receiving water bodies to which the project discharges (Santa Monica Bay, Ballona Creek, Ballona Creek Watershed, Dominguez Channel Above Vermont). A complete listing of these constituents was provided in Topical Response TR-HWQ-1 in the LAX Master Plan Final EIR.

For a pollutant loading of a particular constituent to be calculated for a quantitative impact analysis, valid EMC data must be available. EMCs are defined as a representative concentration of a constituent calculated from a flow-weighted composite storm water sample collected over an entire storm event or from the first three hours of the storm event discharge. Although EMCs were not available for all of the constituents suggested by commentors to the Draft EIS/EIR or those constituents on the 303(d) list, EMCs had been developed by the Los Angeles County Department of Public Works (LACDPW) for some constituents or for closely related constituents. The EMCs are based on LACDPW storm water samples collected over the period 1994-2000.

For each of the constituents for which EMCs had been developed, LACDPW had also assessed the strength/validity of the data used to calculate the representative EMCs, based on number of samples collected, the frequency of detections and number of non-detects, and the number of data flags indicating problems with the sample data associated with each constituent. LAWA reviewed the LACDPW findings. This evaluation indicated that most of the data for the constituents listed above were inadequate for developing EMCs due to either a small number of samples, high frequency of non-detects, or data upon which the EMC was based was annotated as statistically invalid.

One exception was the LACDPW EMC for ammonia, which was based on a sufficient number of samples, had a high frequency of detections and had no samples flagged as having data problems. Ammonia was therefore added to the previous list of nine constituents for which average annual pollutant loadings were calculated. While the EMCs for fecal coliform bacteria, total coliform bacteria, and fecal streptococcus for most land uses except for vacant were based on a relatively small number of samples, pollutant loads for these constituents were also calculated in the LAX Master Plan Final EIR due to the high frequency of detections and due to regulatory and public interest in bacteria levels in water bodies to which LAX storm water discharges.

Responses to the commentor's September 18, 2001 letter are provided in Part II of the LAX Master Plan Final EIR, as responses to comment letter AL00033.

SAIP-AL00005 - 42

Comment: 2. The SAIP DEIR Fails to Adequately Disclose the Runoff Coefficient Used and the Amount of Stormwater Runoff Thereby Calculated.

The SAIP DEIR fails to provide the runoff coefficient used in its water quality analysis. To determine the amount of pollutants that the Project would contribute and the effectiveness of the proposed mitigation, the DEIR multiplies precipitation by the area of impervious surface in the Project area and a runoff coefficient. SAIP DEIR at IV-10 n.7. The runoff coefficient is crucial; it represents the proportion of the rain falling on impervious surfaces that will run off into the bay. But the SAIP DEIR never discloses what runoff coefficient it used. The Federal Highway Administration and the Los Angeles County Department of Public Works suggest different coefficients for use in this type of calculations, and the DEIR's choice of coefficient could have made a difference in the analysis. Table 4.1-4 reports that with the use of Best Management Practices, the airport's contributions of every pollutant will be reduced. However, several of these reductions – notably for bacterial pollutants and phosphorus discharges into the Dominguez Channel system – are quite small, and could very well turn out to be net increases in pollutant load if a different runoff coefficient were used.

In the past, LAWA has used the federal coefficients, which are generally lower than the County's and therefore minimize runoff and pollutant volume. This is an improper choice, however, because the county coefficients "more accurately capture[] local conditions unique to the desert environment." September 18, 2001 Comments, Attachment D at 18. Without any information as to the coefficient, however, it is impossible to tell whether this DEIR repeats that error. The public and decisionmakers are thus unable to independently and intelligently evaluate the stormwater runoff analysis, and this DEIR has failed them.

Response: As explained in the previous response, the SAIP Draft EIR is a "project" or "tiered" EIR under the LAX Master Plan Final EIR. Accordingly, the pollutant load methodology used in the LAX Master Plan Final EIS/EIR is also applied in the SAIP Draft EIR. Topical Response TR-HWQ-1 of the LAX Master Plan Final EIR discusses the issue of runoff coefficients.

As indicated in that discussion, the LAX Master Plan Final EIR used the Federal Highways Administration (FHWA) method for calculating runoff coefficients to determine the pollutant loads. The LACDPW uses a slightly different equation for calculating runoff coefficients. The FHWA-generated runoff coefficients are considered to be more appropriate for the analysis performed in the LAX Master Plan Final EIR in that the FHWA methods more accurately represent airport conditions rather than the urban environment represented in the LACDPW equation.

Regardless of the runoff coefficient in the equation used, as long as the same method for calculating runoff coefficients is used consistently for comparing water quality impacts of the SAIP to conditions prior to implementation of the SAIP (i.e., baseline conditions), relative impacts can be compared equally.

Responses to the commentor's September 18, 2001 letter are provided in Part II of the LAX Master Plan Final EIR as responses to comment letter AL00033.

SAIP-AL00005 - 43

Comment: 3. The SAIP DEIR Should Have Analyzed Flooding Impacts Using a More Severe Model Storm.

The SAIP DEIR's threshold of significance for flooding impacts states that the Project's impacts would be significant if the Project would lead to "[a]n increase in runoff that would cause or exacerbate flooding." SAIP DEIR at IV-21. In analyzing the capacity of the Dominguez Channel drainage system, however, the DEIR uses only a 25-year storm. This modeling decision effectively rewrites the threshold of significance such that flooding impacts are only considered significant if the Project would increase flooding during a 25- year storm. If the Project's drainage system could handle a 25-year event but would "cause or exacerbate" flooding during a larger storm, the DEIR would not consider flood impacts significant.

The DEIR provides no explanation for its use of a 25-year storm, rather than a more severe storm, for determining whether there will be significant flooding impacts to the Dominguez Channel system.

Furthermore, the attributes of the model storm must be provided in the DEIR or in an appendix, to ensure that the model is up to date in an era of potentially rapid and major change in climate patterns. The 25-year storm of 2010 may be very different from the 25-year storm of 1999, and a DEIR must present the most accurate information available. Without more information concerning the model storm, it is impossible to tell whether this document fulfills that duty.

While a larger storm is less likely than the storm used in the DEIR calculations, its effects cannot be wholly ignored. The DEIR does just that – the damage potentially caused by flooding from a larger storm is completely discounted. This is especially disturbing because, as the DEIR acknowledges (SAIP DEIR at IV-33), even a 25-year storm is beyond the capacity of the Dominguez Channel system. The DEIR nonetheless insists that the impacts from such a storm will be confined to minor flooding on airport grounds. Its conclusion that the impact is therefore less than significant is, however, left without support by its failure to provide the runoff coefficient used in its calculations, as discussed above. Moreover, even if the DEIR is correct about the effects of a 25-year storm, the runoff from a larger storm will exceed the Dominguez Channel capacity by that much more and may turn out to have significant effects. The DEIR unacceptably ignores that possibility.

The DEIR does not even provide this flawed level of analysis for the Santa Monica Bay drainage system. Instead, it simply dismisses the possibility of significant flooding impacts by referring to "recent studies," which allegedly found sufficient capacity in that system. SAIP DEIR at IV-26. The DEIR does not even name these studies, let alone provide references. The reader is asked simply to accept LAWA's word that the studies support its conclusion. This is an unacceptable approach for an EIR, which "must contain facts and analysis, not just the agency's bare conclusions or opinions." *Citizens of Goleta Valley*, 52 Cal. 3d at 568 (quotation marks omitted).

Response:

As discussed on page IV-8 in Section 4.1.2.1 of the SAIP Draft EIR, at LAX, surface water is discharged to both County of Los Angeles and City of Los Angeles drainage and flood control structures. County of Los Angeles facilities include the Dominguez Channel, which discharges to San Pedro Harbor, as well as two major drains that discharge into Santa Monica Bay. The City regulates the remaining drainage and flood control structures at the airport. The City of Los Angeles hydrologic design standards for these facilities are based upon their Peak Rate Method, which uses a pattern storm from a 50-year storm return frequency and then establishes specific minimum return frequencies for determining the design flow in proportion to the 50-year storm depth and pattern for different types of facilities. For storm drain systems in areas without sumps, which is the applicable condition for the facilities within the SAIP, a 10-year storm return frequency is used as the minimum basis of design. Major regional (offsite) drainage facilities owned and maintained by the County of Los Angeles, are designed for the Capital Flood, (defined by the County as the runoff from a 50-year frequency design storm) such as for natural watercourses, floodways, culverts or other major regional systems. The City also allows use of the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual, Modified Rational Method for design of drainage and flood control facilities.

As described in Section 4.1.3.1 of the SAIP Draft EIR, the proposed on-airport drainage system for the SAIP project area was analyzed and designed according to LACDPW's Modified Rational Method. To provide a higher level of protection than the minimum required on the airport per the City's design standard (e.g., accommodating larger, less frequent storm events than the minimum 10-year frequency requirement), within-project systems are designed to accommodate up to a 25-year frequency storm using LACDPW's Modified Rational Method to determine the hydrology. The proposed storm drain system is designed to accommodate the ultimate runway/taxiway configuration for the south airfield. Whenever possible, the existing storm drain system is being used. However, based on the on-airport storm drain criteria established for this project (i.e., 25-year design storm), larger-diameter pipe would replace the existing systems in many cases to accommodate the design flow rates. Therefore, using this approach, the project actually exceeds the minimum design standards and therefore reduces the potential for flooding on airport property compared to baseline conditions.

The comment suggests that "potentially rapid and major changes" in climate patterns might result in very different (and presumably higher) storm intensities over the next ten years. Current storm drainage hydrology used for design by the City and County is based on long-term rainfall analysis, and there is nothing to indicate, nor are any of the drainage agencies anticipating, any near-term significant changes in climate patterns or hydrology as suggested.

Off-site, the regional storm drain systems tributary to Santa Monica Bay, as noted in the SAIP Draft EIR, have the capacity to carry up to a 50-year storm event, therefore, both the pre- or post-project runoff to these off-site drainage systems would be less than the design capacity of the existing facilities. Contrary to the commentor's assertion, references to the capacity analysis are provided on page IV-26 of the SAIP Draft EIR. Please also see Topical Response TR-SAIP-GEN-2 for further discussion of cumulative, off-site drainage impacts to the Dominguez Channel Watershed.

SAIP-AL00005 - 44

Comment: 4. The DEIR's Proposed Mitigation for Cumulative Flooding Impacts is Vague and Therefore Inadequate.

The DEIR does acknowledge that runoff from the SAIP, "in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by" the Dominguez Channel system. SAIP DEIR at IV-33. In other words, the SAIP would contribute to a cumulative flooding problem in the Dominguez Channel basin. In mitigation for this serious impact, the DEIR offers a measure from the MPEIR, which "requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows...." SAIP DEIR at IV-22.

Lacking any concrete plans for improvements or funding mechanisms, this mitigation measure is plainly insufficient. It defers formulation of the actual measures until an unknown time in the future, and offers no standards to ensure their effectiveness. There is thus no way to judge whether this mitigation measure will actually avoid or minimize the significant cumulative flooding impact. Nor is there any certainty that improvements will be implemented. It therefore fails to meet CEQA's requirements. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."). CEQA requires that "feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." Federation of Hillside & Canyon Ass'ns, 83 Cal. App.4th at 1261-62.

Response: The following provides the full text of Mitigation Measure MM-HWQ-1, as adopted in conjunction with approval of the LAX Master Plan and applicable to the SAIP.

MM-HWQ-1. Upgrade Regional Drainage Facilities (Alternatives A, B, C, and D).

Regional drainage facilities should be upgraded, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development. This could include upgrading the existing outfalls, or building new ones. The responsibility for implementing this mitigation measure lies with the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering. A portion of the increased costs for the upgraded flood control and drainage facilities would be paid by LAX tenants and users in accordance with the possessory interest tax laws and other legal assessments, consistent with federal airport revenue diversion laws and regulations and in compliance with state, county and city laws. The new or upgraded facilities should be designed in accordance with the drainage design standards of each agency.

The subject mitigation measure is proposed to address a potential cumulative impact to which the SAIP may contribute. As this measure is not within LAWA's jurisdiction to implement, LAWA cannot guarantee its implementation. Therefore, in order to provide a conservative analysis, the SAIP EIR concludes that the SAIP, in conjunction with other cumulative development, may result in a significant, unavoidable adverse impact relative to drainage.

The subject mitigation measure satisfies the requirements of CEQA, and is not a deferral of mitigation. As acknowledged by the commentor, the mitigation measure is set forth to address a cumulative hydrology/drainage impact resulting from effects of past, present, and probable future projects, in conjunction with the SAIP. The mitigation measure reflects the fact that the impact being addressed is not exclusive to, or directly attributable to, the SAIP, but rather is a result on future cumulative conditions projected in light of many projects. Moreover, the location of the projected impact and primary responsibility for implementing the improvements necessary to address that impact are well outside the geography of LAX and the authority of LAWA. The

mitigation measure identifies the types of improvements necessary to address the projected impact (i.e., upgrading the existing drainage outfalls or building new ones), recognizing that the determination of, and design for, whatever improvements are implemented lie within the jurisdiction of Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering. The measure indicates that the new or upgraded facilities be designed in accordance with the drainage design standards of each agency, which would dictate the performance standard(s) most appropriate for sufficiently addressing the future impact. The measure discusses how fair-share funding of those future improvements could occur, relative to the LAX Master Plan's impacts, including individual projects therein. This approach to mitigation is in full compliance with CEQA, as articulated in *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1018-1019, 280 Cal.Rptr. 478.

Please also see Topical Response TR-SAIP-GEN-2 regarding proposed mitigation of cumulative hydrology/water quality impacts.

SAIP-AL00005 - 45

Comment: D. The DEIR's Analysis of and Mitigation for the Project's Impacts to Biotic Communities is Inadequate.

The SAIP DEIR's analysis of the Project's impacts on biotic communities repeats the errors of the MPEIR. The analysis is based on an arbitrary and flawed Mitigation Land Evaluation Procedure ("MLEP"), a modified version of the Habitat Evaluation Procedure ("HEP") developed by the U.S. Fish and Wildlife Service. The MLEP assigns a numerical value to the land slated to be disturbed by the Project, purportedly reflecting its worth as habitat. The value figures are assigned based on the habitat's resemblance to an idealized version of its general habitat type, rather than on the land's actual value to the wildlife it supports.

As discussed extensively in a report by Travis Longcore and Catherine Rich, Attachment E to our September 18, 2001 Comments ("Longcore Report"), the MLEP dramatically underestimates the Project's impacts. A properly applied HEP starts with the needs of the species being studied and considers the land's value to that species. The MLEP starts with a generic vision of the habitat, and never takes into account what the impacted land provides for the species. As the Longcore Report explains, the MLEP will systematically underestimate impacts to species that thrive on disturbed ground, like the loggerhead shrike and San Diego black-tailed jackrabbit that inhabit the Project area. The species' habitat frequently fails to resemble ideal habitat types, and is thus given a low value by the MLEP. Thus, although the SAIP would destroy 36.34 acres of habitat suitable for loggerhead shrike and San Diego black-tailed jackrabbit, under the DEIR's analysis, the impact is only to 3.76 "habitat units." SAIP DEIR at IV-247 through -48.

This renders the DEIR inadequate in two ways. First, the low habitat values hide the magnitude of the Project's impacts. If individuals of sensitive species may thrive on a given piece of ground, making that land permanently unavailable to them is a dramatic loss, and the DEIR must recognize this. More importantly, following the MLEP leads the DEIR to offer wholly inadequate mitigation for the Project's impacts to the loggerhead shrike and the San Diego black-tailed jackrabbit. Because the DEIR characterizes the Project's 125.72 impacted acres as being worth only 17.2 habitat units, only 17.2 habitat units will be replaced as mitigation: 43 acres of off-site mitigation land will be restored to a .8 habitat value, for a total of 17.2 acres. Because the MLEP severely undervalues the impacted land, as discussed in the Longcore Report, this small acreage of mitigation land cannot be considered sufficient to reduce the Project's impacts to less than significant.

Response: This comment pertains to the LAX Master Plan Final EIR and incorporates by reference comments on that document. Thus, this is not a comment on the SAIP Draft EIR, and no further response is required. Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR. As noted in the Topical Response, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, responses to the comments in the LAX Master Plan EIR are incorporated by reference as if fully set forth herein. Responses to the commentor's previous comments concerning the analysis of LAX Master Plan impacts on biotic communities are provided in responses to comment letters AL00033 and SAL00015 included in Part II of the LAX Master Plan Final EIR and FAL00003 included in FAA's Record of Decision on the LAX Master Plan.

SAIP-AL00005 - 46

Comment: E. The SAIP DEIR's Analysis of Traffic Impacts is Inadequate and Incomplete.

1. The SAIP DEIR Improperly Ignores Traffic Impacts on Roadway Segments and Fails to Properly Calculate Trip Routes.

The DEIR's analysis of the Project's impacts on off-airport surface transportation only analyzes the Project's effect on traffic at intersections. It ignores any potential congestion that the Project construction traffic will cause on area roadway segments. The DEIR offers no explanation for this omission, other than a reference to a letter from the Los Angeles Department of Transportation ("LADOT"). While the LADOT letter states that the DEIR did not need to consider temporary construction-related traffic impacts at all (SAIP DEIR at IV-34-35, 53), this assertion is simply wrong. An EIR must "giv[e] due consideration to both the short-term and long-term effects" of a project. CEQA Guidelines § 15126.2(a) (emphasis added). The DEIR is thus required to consider the traffic effects of the year-long construction period, as the DEIR implicitly concedes by discussing construction impacts on intersections. Thus, the LADOT letter provides no justification for ignoring similar impacts on roadway segments.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The traffic analyses were performed using the criteria set forth in the Draft L.A. CEQA Thresholds Guide, May 1998. The Thresholds Guide (page F.2-1) states that "Street segment capacity impacts are generally evaluated in program-level analyses (such as specific plans or long-range development projects) for which details regarding specific land use types, sizes, project access points, etc., are not known. If such details are known, see F.1 INTERSECTION CAPACITY for applicability." The Thresholds Guide goes on to state, "Street segment capacity impacts are evaluated for permanent traffic increases after project completion." Based on these Thresholds Guide criteria, street segment capacity analysis would not be applicable to the SAIP because the analyses pertains to a project-level study with known conditions pertaining to the size, location, and project access points, and the project is not resulting in a permanent traffic increase after project completion (i.e., the project-related traffic increase from construction is a temporary condition).

The traffic study does consider the potential effects of construction over the entire duration of the construction period. This was accomplished by preparing a conservative estimate of traffic activity comprised of the estimated peak construction-related traffic activity that would be generated by the SAIP combined with other roadway traffic during the peak month for airport-related traffic. This condition is estimated to represent the "worst-case" condition over the course of the construction period. The estimated worst-case condition would last on the order of one-month or less based on a review of construction peaking patterns over the course of the project. Based on a week-by-week review of construction activity, construction traffic volumes would be lower at other times during the construction period and the resulting traffic conditions would be improved, therefore, no additional significant impacts would be expected during the SAIP construction period. Please see Response to Comment SAIP-AL00004-22 for more information on this topic.

SAIP-AL00005 - 47

Comment: Moreover, the DEIR's analysis of intersection congestion is undermined by its reliance on unsubstantiated and half-explained assumptions about the routes of construction traffic. Specifically, the DEIR assumes that 76% of all construction traffic will travel to the airport via freeway and that only 8% will come through El Segundo surface streets. SAIP DEIR, Exh. 4.2-5. The only explanation for these figures is that they are based on the assumption that "trips would originate from geographic locations in proportion to the regional population distribution geographic distribution of the region's population." SAIP DEIR at IV-68.

Critically, there is no explanation of how population distribution statistics were turned into road usage figures. This calculation must be explained, especially as using surface streets to avoid freeway congestion is common practice in the Los Angeles area. Given this practice, it is implausible to assume without any evidentiary support that so few construction employees or

delivery drivers would use surface streets. It is also likely that the route choices of airport passengers would differ from those of construction employees driving to the airport every day and of delivery drivers who spend their working lives on the road. Airport passenger surveys thus may not be accurate representations of the construction trip distribution. In short the DEIR must support its assumptions about construction trip distribution. Otherwise, it may not rely on these assumptions for traffic volume and congestion calculations regarding intersections and roadway segments. See *Citizens of Goleta Valley*, 52 Cal. 3d at 568.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. To conduct the traffic analysis, it was necessary to estimate the routes that construction employees and delivery trucks would use to access the study area and to travel within the study area. Using this information, the estimated trips generated by the SAIP and other anticipated LAX construction projects were assigned to the individual intersections studied in the SAIP Draft EIR. Because the actual points of origination and travel paths used by these future employees and delivery trucks cannot be definitively determined until the construction contracts are in place and the construction employees have been hired, the assumptions used for the distribution of construction trips are based on the best available information. As described in the SAIP Draft EIR, it is assumed that construction employee trips would originate from geographic locations in proportion to the regional population distribution. Because the employees will be drawn from the general population, it is reasonable to assume that employee trips would be distributed in proportion to the distribution of the population.

To assign trips to specific roadways and intersections within the study area, more detailed information describing specific roadway usage was analyzed. The results of the 2001 LAX airline passenger survey were used to estimate the proportion of construction-related traffic using the freeway system (I-405 and I-105) and the local roadways to access the study area. As shown in Table 4.2-9 provided in Section 4.2.6.1 of the SAIP Draft EIR, it was estimated that 24% of the construction employee traffic would use the local roadway system and the remaining 76% of the traffic would access the study area via the freeway system. It was estimated that about 8% of the total construction traffic would use surface roadways in El Segundo. This traffic would be comprised of construction employees, not truck deliveries.

After the regional approach distributions were developed, employee trips were assigned to specific travel paths within the study area. Specific paths were determined for traffic entering and exiting the study area. The travel paths define the specific roadways from each freeway ramp or primary surface roadway that a driver would use to access the employee parking lot located on La Cienega Boulevard. For truck deliveries, the travel paths are well defined within the study area. In accordance with LAX Mitigation Monitoring and Reporting Program commitment ST-22, construction contractors will be contractually obligated to designate truck routes that use freeways and non-residential streets. For the SAIP, construction truck traffic would be limited to Pershing Drive (from World Way West to Imperial Highway), Imperial Highway (from Pershing Drive to I-105), I-105, and I-405. The detailed assumptions describing the travel paths for employees, shuttle buses, transfer trucks, and delivery trucks within the study area are provided in Appendix J of the SAIP Draft EIR.

The commenter refers to the "common practice in the Los Angeles area" for drivers to divert to surface streets to avoid freeway congestion. Since construction truck traffic would not be permitted to divert from their assigned haul routes, diversion of these vehicles from the freeway onto surface streets will not occur. With respect to construction employee traffic, contractors will be contractually required to schedule employee shifts that do not coincide with the freeway peak hours (7:00 to 9:00 a.m. and 4:30 to 6:30 p.m.). Because the SAIP construction peak hours do not coincide with the regional peak hours, it is anticipated that diversion of construction employee traffic to surface streets to avoid freeway congestion would be insignificant. The commenter states that it is likely that the route choices of airport passengers would differ from those of construction employees driving to the airport every day and of delivery drivers who spend their working lives on the road. It is possible that employees and commercial drivers that use the same routes to work each day will, to the extent possible, attempt to "optimize" their travel paths to minimize their travel time during congested periods. However, given that the SAIP construction traffic will be arriving and departing during non-peak periods, it is not anticipated that the travel routes for construction employees would differ significantly from those reported by the airline passengers. Furthermore, the travel routes reported in the 2001 LAX passenger survey were based on responses from local residents (not visitors), many who are also knowledgeable of local travel conditions similar to employees and

commercial drivers and the knowledge of these users is inherently reflected in the distribution patterns. As described previously, delivery trucks will be required to follow contractually specified truck routes.

SAIP-AL00005 - 48

Comment: 2. The SAIP DEIR Ignores the Project's Cumulative Traffic Impacts.

An EIR must discuss a project's cumulative impacts when the project's incremental effect on the environment is cumulatively considerable. CEQA Guidelines § 15130(a). A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." CEQA Guidelines § 15355(b). The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed... action cannot be gauged in a vacuum." *Whitman v. Board of Supervisors*, 88 Cal.App.3d 397, 408 (1979). A cumulative traffic impacts analysis is especially important in the present case because of the ongoing, excruciating congestion on the freeways around the airport.

The DEIR dismisses cumulative impact analysis by claiming that the adjusted baseline method it uses already includes the impacts of other projects in the region. This is true as far as it goes, but the DEIR then fails to account for the Project's contribution to significant congestion at several intersections. Table 4.2-13 of the DEIR shows that several of the analyzed intersections suffer significant decreases in their level of service ("LOS"), for example, the drop from LOS C to LOS D for the P.M. peak at La Cienega and Century or the drop from LOS C to LOS E for the P.M. peak at Century and Aviation. The DEIR determines that the Project will not have a significant individual or cumulative impact on these intersections because its contribution to the overall impact does not meet the stated thresholds of significance.

The DEIR thus uses the same thresholds of significance to determine whether the Project has significant individual impacts as it does to determine whether the Project's contribution to a cumulative impact is cumulatively considerable. This approach is impermissible. By judging cumulative impacts and Project impacts by the same threshold, the DEIR completely defeats the purpose of looking at cumulative impacts. See *Kings County*, 221 Cal. App. 3d at 720. The SAIP's relatively small contributions to these undeniable traffic impacts are precisely the type of "drops in the bucket" that CEQA demands be considered in a cumulative impact analysis. If the small size of a project's contribution to this problem gets it off the hook, then it is possible – even likely – that no project will ever be held accountable for these traffic impacts, and no agency will ever be called upon to impose mitigation. Avoiding such a situation is the very purpose of cumulative impact analysis. See *Las Virgenes Homeowners Federation, Inc. v. County of Los Angeles* (1986) 177 Cal. App. 3d 300, 306.

The DEIR must consider whether the Project's contribution to congestion will be cumulatively considerable, using different thresholds of significance than it uses for project impacts. This incremental effect may be a smaller contribution than would be considered significant when analyzing the impacts of the Project alone. Indeed, accounting for a project's small contributions to large problems is exactly the purpose of cumulative impact analysis. See CEQA Guidelines § 15355(b); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 718-21 (holding that EIR may not dismiss cumulative impacts merely because project's contribution is small relative to magnitude of problem). Furthermore, the DEIR must impose mitigation to avoid or minimize the SAIP's contribution to these impacts.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The traffic analysis followed the guidelines for the City of Los Angeles Department of Transportation (LADOT). According to those guidelines, the traffic analysis that was conducted is cumulative by nature. That is, when analyzing the traffic operations at an intersection the Adjusted Baseline condition accounted for all of the traffic expected to use that intersection, including airport related traffic (e.g., airline passengers, airport employees, cargo), other LAX development unrelated to the SAIP, and background traffic from local developments and ambient regional growth. The direct traffic generated by the SAIP is then accounted for in the Project scenario. Using the LADOT methodology, project-related impacts for the SAIP were

estimated by comparing the total intersection volume including SAIP-related traffic (i.e., the Project condition) with the Adjusted Baseline. This method ensures that LAWA is responsible for mitigating the SAIP's impacts while accounting for cumulative traffic effects. However, it does not require the sponsor to mitigate other projects' impacts, which is prohibited by California state law. As a result, the traffic analysis accounts for both direct and cumulative impacts.

The commentor states that the SAIP Draft EIR should account for the SAIP's contribution to intersections that "suffer significant decreases in their level of service ("LOS"), for example, the drop from LOS C to LOS D for the P.M. peak at La Cienega and Century or the drop from LOS C to LOS E for the P.M. peak at Century and Aviation." It is important to clarify that the changes in level of service reported by the commentor are actually the changes from the 2003 Baseline to the 2005 Adjusted Baseline. SAIP-related traffic is not represented in either of these traffic scenarios. The commentor is arguing that because these intersections are anticipated to operate at "significant congestion" before SAIP traffic is added to the intersection, that the SAIP should be responsible for any project contribution even if it does not meet the LADOT standards of significance. Taken to the extreme, this rationale would theoretically require a project to declare an impact and provide mitigation at every intersection judged to have "significant congestion" that a single individual vehicle generated by the project (in this case a construction employee) would enter while traveling from their home driveway to the project site. Because this is not a feasible or appropriate response, the LADOT measure of significance was developed based on a graduated scale to allow a smaller project related contribution at congested intersections than would be allowed at less congested intersections before declaring a significant impact. For example, if an intersection is operating at LOS E or F after project related traffic has been added to the intersection, the amount of traffic with a corresponding increase in volume/capacity (v/c) ratio that would be allowed by the project before triggering an impact is very small (an increase of the v/c ratio of about 1.1% or less).

The comment's claim that any project that contributes to a cumulatively significant conditions must be found to have a significant cumulative impact, regardless of the size of the project's contribution, is also legally incorrect. CEQA Guidelines 15130 provides that "[a]n EIR shall discuss cumulative impacts of a project when the project's incremental effect [contribution to the cumulative situation] is cumulatively considerable. In other words, where a project's contribution is not considerable, the project does not necessarily have a significant cumulative impact, regardless of the cumulative scenario otherwise. Furthermore, mitigation is only required for potentially significant impacts. Thus, where a project's contribution to a cumulative impact is not considerable, the project need not mitigate that impact (or contribution) regardless of the cumulative condition notwithstanding the project.

The commentor indicates that the SAIP Draft EIR "must impose mitigation to avoid or minimize the SAIP's contribution to these impacts. The SAIP Draft EIR traffic analysis is limited to assessing potential traffic impacts associated with the construction of the SAIP and identifying appropriate mitigation measures to address these potential impacts." Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to construction of the SAIP based on the LADOT criteria for determining significant impacts. Please refer to Response to Comment SAIP-PC00022-21 for discussion of mitigation at this location.

Please see Topical Response TR-SAIP-GEN-2 regarding the analysis of cumulative impacts in the SAIP Draft EIR.

SAIP-AL00005 - 49

Comment: VI. THE SAIP DEIR'S FAILURE TO CONSIDER ALTERNATIVES TO THE PROJECT RENDERS IT LEGALLY INADEQUATE.

In blatant disregard for CEQA, the SAIP DEIR's text contains no discussion of alternatives to the Project. CEQA could not be more clear on the subject of alternatives: "The purpose of an environmental impact report is to identify alternatives to the project..." Pub. Res. Code § 21002.1(a). There is no leeway in this mandate: "An EIR shall describe a range of alternatives to the project..." CEQA Guidelines § 15126.6(a). "Without meaningful analysis of alternatives in the EIR, neither the courts nor the public can fulfill their proper roles in the CEQA process.... [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's

fundamental goal that the public be fully informed as to the environmental consequences of action by their public officials." *Laurel Heights Improvement Association of San Francisco v. U.C. Regents* (1988) 47 Cal. 3d 376, 404.

The DEIR purports to justify its failure to meet this requirement by noting that numerous "airfield configurations and locations" were considered in the MPEIR. It also suggests that airfield configurations must be designed at such "a precise level of detail" that the development and consideration of alternatives was impossible. Neither assertion remotely justifies the DEIR's failure to provide the legally required alternatives analysis. There is simply no exception to CEQA's alternatives requirement – no "tiering" exception, and certainly no "detailed airfield plan" exception. Before it may lawfully support any project approvals, the EIR must describe alternatives and compare their impacts to those of the proposed SAIP.

We recognize that Appendix B to the DEIR does briefly discuss two alternatives proposed by El Segundo. However, that discussion does not - and cannot rectify this omission in the text of the DEIR, for several reasons. First, whatever is required to be in the text of the EIR must be in the EIR itself, not buried in some appendix. See *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2003) 106 Cal. App. 4th 715, 722-23; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 727. Second, Appendix B fails to discuss the CEQA-mandated no-project alternative. Third, LAWA, as the lead agency, bears the responsibility for identifying and analyzing all potentially feasible alternatives; it may not restrict itself simply to briefly considering those alternatives proposed by El Segundo. Fourth, as detailed below, the discussion in Appendix B does not remotely suffice to satisfy CEQA's requirements for analyzing a full range of potentially feasible alternatives.

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. The additional alternatives analysis presented in Section 2.3.3 of the SAIP Draft EIR and discussed in Appendix B of the EIR was added at the request of the City of El Segundo.

SAIP-AL00005 - 50

Comment: A. The DEIR's Truncated Project Objective Precludes Meaningful Analysis of Alternatives.

It is especially important at the alternatives phase of the CEQA process that the agency keep an open mind to all feasible means of achieving the agency's objectives. "The CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal.' [citation omitted].... [T]he lead agency may determine an environmentally superior alternative is more desirable or [that] mitigation measures must be adopted...." *Kings County*, 221 Cal. App. 3d at 736-37.

Thus, the first step that LAWA must take to provide an adequate alternatives analysis is to articulate a proper objective for the Project, rather than the narrow, circular objective the DEIR provides. As discussed above, the DEIR's stated project objective, "to implement the SAIP," is entirely circular. As such, it makes any analysis of alternatives both pointless and impossible. To provide the required meaningful discussion of alternatives, the DEIR must first adjust the Project's objectives. Other parts of the document suggest that the main goal of the project is improving safety by decreasing the number of runway incursions that occur on Runway 25R. E.g., SAIP DEIR at II-2 ("[A] primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions."); SAIP DEIR, Appx. B at 3 ("reducing or eliminating the risk of runway incursions on the south airfield at LAX, while maintaining airfield efficiency and being cost-effective"). Accordingly, we will assume for purposes of our comments that reducing the risk of runway incursions is LAWA's true project objective.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and a discussion of the project objective. Also see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-AL00005 - 51

Comment: B. The SAIP DEIR Must Analyze the Required No-Project Alternative.

The most obvious flaw in the DEIR's do-nothing approach to the analysis of alternatives is the failure to consider a no-project alternative. The no-project alternative is an essential aspect of every EIR. The contrast it provides offers decisionmakers and the public their best chance to see clearly the overall impacts of the proposed project, and to decide whether they want it to go forward. Even if it were acceptable in certain circumstances for a second-tier EIR to rely on a previous alternatives analysis, the MPEIR's analysis here is not sufficient to satisfy the SAIP DEIR's obligation to consider a no-project alternative. In a tiering process, the "level of specificity" must change with every tier. See *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners of the City of Long Beach* (1993) 18 Cal. App. 4th 729, 741-42. Although the MPEIR purportedly analyzes the impacts of a "no-project" alternative, that analysis claims to consider only the airport with no Master Plan construction at all.⁷ MPEIR at 3-13 to 3-14. In the context of this second-tier EIR, the no-project alternative analysis must consider the impacts of the planned Alternative D construction without the SAIP.⁸ Without such analysis in the SAIP EIR, LAWA may not lawfully approve the Project.

A no-project analysis is particularly appropriate for the SAIP because physically reconfiguring the airfield - at the cost of hundreds of millions of dollars and significant environmental impacts - does little or nothing to directly address the safety concerns that are ostensibly driving this proposal.

⁷ In fact, as we have previously commented, the MPEIR's no-project alternative included numerous activities and thus was not a true no-project alternative.

⁸ To be legally adequate, this analysis must evaluate the impacts of the no-project alternative against the Master Plan as modified by the Consensus Plan (i.e., it must take into account the fact that yellow-lighted projects are highly unlikely to be constructed).

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. The no action-no project alternative was adequately addressed in the LAX Master Plan Final EIR with regards to the operational impacts associated with the SAIP. There have been no changes in the assumptions regarding aircraft operations, fleet mix, runway use, or other post-construction operational characteristics from those presented in the LAX Master Plan Final EIR. Therefore, no additional analysis of the post-construction operational impacts was required for the SAIP tiered EIR and no new baseline for assessing those impacts was required. The SAIP tiered EIR appropriately addresses the specific impacts associated with the construction of the SAIP.

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Comment: C. The SAIP DEIR Must Analyze Non-Construction Alternatives for Reducing Runway Incursions.

A thorough alternatives analysis is also necessary to allow the public and decisionmakers the opportunity to consider whether any substantial construction at all was necessary to reduce runway incursions. By far the most common cause of runway incursions at LAX is pilot or other human error. The center taxiway at the heart of the SAIP does nothing to remedy pilot error, and therefore is highly unlikely to be a truly effective means of achieving the Project's underlying goals. In fact, the only actual study relied upon by the DEIR to support its claim that the SAIP will reduce runway incursions, SAIP DEIR at II-2, strongly suggests just the opposite. After four days of simulations, air traffic controllers were asked to rate how the center taxiway affected the potential for runway incursion. The mean answer from ground controllers working the south side of the airport was that the chance of an incursion was slightly greater with the reconfigured airfield than it had been before September 11th, 2001. NASA FutureFlight Central (2003), *Los Angeles International Airport Runway Incursion Studies, Phase III – Center Taxiway Simulation* at p. 16; see also Kanafani Memorandum, attached hereto as Exhibit 2.

Attacking the problem of pilot error directly, rather than with a major construction project of questionable value, could realize significant safety improvements without the cost or environmental impacts of the proposed SAIP. The DEIR should consider a variety of safety measures, including

restriping the crossover taxiways, installing effective traffic signals on the taxiways, simplifying and/or automating tower commands to improve the comprehension of non-English-speaking pilots, and requiring in-cockpit signaling devices telling pilots when they are nearing the hold-short line. See Kanafani Memorandum, ¶ 5. These are just a few possibilities. That the SAIP DEIR does not consider any alternative solutions to the runway incursion problem calls into question whether safety is truly motivating this Project. A continued unwillingness to consider the effectiveness of safety measures less costly and disruptive than the planned reconfiguration would only reinforce that skepticism.

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Also see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions.

This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, to provide full disclosure and discussion, the following further response is provided. LAWA has considered a number of mechanisms to address runway incursions and to attempt to reduce the potential for runway incursions at the airport, particularly on the south runways, where the majority of runway incursions occur. The findings are summarized in Section 2.1 of the SAIP Draft EIR. As documented in the "Southside Airfield and New Large Aircraft (NLA) Studies" prepared for the airport and referenced at page II-2 of the SAIP Draft EIR, the most recent assessment included both construction and non-construction related means to address runway incursions. In addition to the center taxiway solution, as included in the LAX Master Plan and therefore the SAIP, an end-around taxiway solution, operational solutions, and application of technology were considered. The center taxiway and relocation of Runway 7R-25L was found to be the most effective and efficient means of reducing the potential for runway incursions. The center taxiway concept eliminates unimpeded high-speed access from Runway 7R-25L to closely spaced Runway 7L-25R, which the technology type solutions did not accomplish. The center taxiway concept, compared with the end-around taxiway concept provides a more efficient solution in terms of aircraft taxi times. Also the end-around taxiway would require aircraft to taxi closer to residential and other noise-sensitive areas than the currently do or as they would with the center taxiway.

SAIP-AL00005 - 53

Comment: D. The SAIP DEIR Must Thoroughly Analyze the End-Around Alternatives Proposed by El Segundo.

As for alternatives to the Project that would include construction, the MPEIR's alternatives analysis only considered broad plans. It did not consider any specific alternatives that could address the runway incursions that the SAIP is purportedly designed to prevent. Analyzing such specific alternatives would not be futile. There are at least two potentially feasible alternatives to the proposed southwards runway shift and centerline taxiway. Both alternatives involve an end-around taxiway that extends westward from the end of Runway 7R-25L, then turns northward past the end of Runway 7L-25R to reach the central terminal complex. The taxiway could potentially reduce environmental impacts under two scenarios: (1) if it is constructed at grade so that aircraft do not need to throttle up noisily to traverse hills, and (2) if aircraft using the taxiway are towed with relatively quiet tugs rather than proceeding under their own power. Both alternatives were previously brought to LAWA's attention. Nevertheless, the DEIR dismisses them for legally inadequate reasons.

The DEIR offer no analysis, let alone substantial evidence, suggesting that either of the end-around proposals fail to meet any of the criteria for a reasonably feasible alternative. Instead the DEIR simply asserts that "[i]n contrast to El Segundo's assumption that both suggested end-around modifications might reduce noise impacts on nearby El Segundo residential areas, results of the planning study concluded that [the proposed project], overall, is more feasible than either one of the modified end-around taxiway designs." SAIP DEIR at II-9. The DEIR does not provide any

substantial evidence to support this conclusion. Nor does it even purport to address whether these alternatives might reduce noise impacts.

Moreover, the assertion that the SAIP as proposed is "more feasible" than these alternatives contains an explicit acknowledgment that the alternatives are, at the very least, potentially feasible. Certainly, the DEIR presents no evidence of the infeasibility of the two end-around proposals. The DEIR does refer to the "Modified End-Around Taxiway Operations Analyses," (the "Planning Study") contained in an appendix, SAIP DEIR, Appx. B. However, "[w]hatever is required to be considered in an EIR must be in the report itself." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 727.

Even if the Planning Study's analysis is considered to be part of the DEIR's text, that document does not provide a sufficient basis for dismissing the end-around alternatives without considering them. It finds only that the end-around alternatives may increase some costs of reconfiguring the runway. SAIP DEIR Appx. B at 28-29. But CEQA requires reasonable alternatives to be considered, "even if these alternatives... would be more costly." CEQA Guidelines § 15126.6(b). Furthermore, the Planning Study provides only general suggestions of the costs of the end-around alternatives, rather than the complete cost-benefit analyses requested by El Segundo during scoping. To provide decisionmakers and the public with the information they need to make an intelligent decision concerning the SAIP, the EIR must include a complete comparison of the costs and impacts of the alternatives and the proposed project.

Perhaps most disturbingly, the DEIR presents no analysis of whether the end-around alternatives will meet the Project's objectives. Before it could perform such an analysis, the DEIR would have to restate the Project's objectives, as discussed above. Neither the DEIR nor the Planning Study considers the degree to which the end-around alternatives could advance the goal of improving safety and decreasing the number of runway incursions. The DEIR must consider reasonable alternatives, "even if these alternatives would impede to some degree the attainment of the project objectives." CEQA Guidelines § 15126.6(b); see also *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal. App. 4th 477, 489. Until it does so, it will remain inadequate.

Finally, neither the Planning Study nor the DEIR adequately analyzes the end-around alternatives' ability to reduce or avoid some of the proposed project's environmental impacts. As discussed in the Aviation Systems Report, the Planning Study does no more than find that one of the two end-around alternatives, the tug proposal, may not improve on the project in one noise metric and in the emission of certain air pollutants. SAIP DEIR, Appx. B at 19-28. Other noise metrics are not considered.

Moreover, the end-around with tugs alternative is a clear improvement over the proposed Project in terms of several other air pollutants. SAIP DEIR, Appx. B at 26-28. A reasonable alternative may be one that reduces some, but not all, of a project's impacts. *Mira Mar Mobile Community*, 119 Cal. App. 4th at 489. Accordingly, these conclusions are insufficient to eliminate the end-around with tugs alternative from consideration. Furthermore, neither the DEIR itself nor the Planning Study presents any analysis at all of the impacts of the at-grade end-around alternative.

Accordingly, a revised DEIR must be prepared that complies with CEQA's requirements to provide information sufficiently detailed to permit a reasonable choice of alternatives so far as environmental aspects are concerned. *San Bernardino Valley Audubon Soc'y v. County of San Bernardino* (1984) 155 Cal. App. 3d 738, 750-51. This must include a thorough comparison of alternatives' environmental impacts with the proposed Project's.

The revised DEIR must also set forth all alternatives that were considered by the lead agency and rejected as infeasible during the scoping process, and the reasons underlying the agency's determination. Agency consideration of reasonable but infeasible alternatives in the administrative record cannot replace the CEQA-mandated discussion of alternatives in the EIR, even if that discussion is in an appendix to the EIR. See *Citizens of Goleta Valley*, 52 Cal.3d at 569. Thus, if LAWA finds certain alternatives to be infeasible, its EIR analysis must explain in meaningful detail the reasons and facts supporting that conclusion.

Response: As the commentor acknowledges, the SAIP Draft EIR evaluates a component of the LAX Master Plan at a project level. The Master Plan is a wide-ranging, comprehensive plan for the future of LAX airport which seeks, among other things, to advance the airport's levels of safety and security.

A concise and well documented history of the LAX Master Plan and its objectives are stated on page II-1, Section 2.1, LAX Master Plan's South Airfield Improvement Project.

The commentor claims that the alternatives could potentially reduce environmental impacts under two scenarios. However, the comment ignores the relationship between the overall Master Plan and all of its program components, including the SAIP, and the fact that the alternatives suggested in the comment do not fit appropriately within that relationship. For further detail regarding the SAIP and its relation to the LAX Master Plan, please see Topical Responses TR-SAIP-PD-2 and TR-SAIP-ALT-1 regarding the range of alternative analyzed in the SAIP Draft EIR.

The commentor acknowledges that, as-requested by the City of El Segundo, a planning study was conducted evaluating two alternatives to the LAX Master Plan SAIP component. Neither alternative is considered feasible relative to the objectives and goals set forth in the LAX Master Plan and no acknowledgement is made to the contrary.

The commentor believes that there are two potentially feasible alternatives to the proposed project. Though the commentor attempts to infer the feasibility of these alternatives it is not stated in the comment how these two alternatives serve to meet each of the objectives and goals stated in both the LAX Master Plan and the LAX Master Plan Final EIR. In fact, they do not.

Page 1-1 of the Final LAX Master Plan, Section 1.1, Policy and Planning Objectives, states seven goals for the airport improvements associated with the Master Plan. A summary of goals that would fail to be achieved by implementation of the alternatives proposed by the City of El Segundo is below:

Goal 2 - Ensure the safety of all airport users.

No end around alternative would meet this goal due to the fact that the end-around alternatives, including all variations, fail to reduce the potential for runway incursions during east flow. Thus, an improvement to the safety of all airport users would not be achieved. In contrast, the center taxiway alternative provides improved safety to all airfield operations.

Goal 3 – Continue to operate efficiently and continue to provide major direct and indirect economic benefits to local, regional, and state environments.

No end around alternative would meet this goal due to the fact that the end-around alternatives, including all variations, fail to operate as efficiently as the center taxiway alternative. In fact, the end-around alternative proposed by the City of El Segundo utilizing aircraft tugs is the least efficient alternative considered. In contrast, the center-taxiway alternative provides improved safety while maintaining greater efficiency than the end-around alternative.

Goal 4 – Operate LAX in an environmentally sensitive and responsible manner.

The implementation of an end-around taxiway would increase noise impacts to the City of El Segundo relative to the preferred alternative. For this reason, the end-around taxiway is considered infeasible. In contrast, the center taxiway alternative seeks to minimize potential noise impacts, as well as air quality impacts on the City of El Segundo.

Goal 7 – Achieve a balance between increased LAX operations, and environmental, social, land use, ground access, economic and air commerce impacts.

Implementation of the end-around taxiway alternative or variations thereof would fail to meet this goal due to the fact that the end around taxiway would require an increase in aircraft operations along and, possible, south of existing Taxiway A. Recently adopted zoning guidelines prohibit such operations. This would conflict with the goal of achieving balance with the existing land uses desired by the surrounding community. The infeasibility of the suggested alternatives with regard to the LAX Master Plan is highlighted in the section of the planning study titled Land Use. This section starts at page 12 of the planning study contained in Appendix B of the SAIP Draft EIR. Foremost in this section is the acknowledgement that implementing either of the alternatives would require the relocation of several facilities that were previously evaluated in the approved LAX Master Plan. This conflicts with the objectives of the approved Master Plan, thereby further rendering these alternatives infeasible. Furthermore, recently adopted LAX zoning and land use restrictions -

adopted for the purpose of minimizing noise impacts in El Segundo - prohibit aircraft from taxiing in the area proposed for construction of the staging apron. As stated in the Los Angeles International Airport Specific Plan (the Specific Plan) (Appendix B), approved December 14, 2004, Section 8, Land Use, Subsection D, Imperial Terminal Area, aircraft are not allowed to taxi under power within the LAX-A Zone – Imperial Terminal Area. Under the commentor's proposed alternatives, however, aircraft would have to do just that. Thus, those alternatives are also infeasible because they conflict with adopted zoning and other land use restrictions.

As stated in the LAX Master Plan Final EIR, LAWA set out to improve LAX in a manner that would enhance airport safety. Please see page 2-12, Section 2.3.8, of the Final EIR. The end-around taxiway alternative to which the commentor refers does not comprehensively address the issue of airfield safety rendering it infeasible. In particular, the end-around taxiway alternative, including each and every variation of said alternative, would, at best, enhance airfield safety during west flow only.

Further, the Master Plan objectives stated on page 2-1, Section 2.1 of the LAX Final EIR state that airport improvements should be efficient and cost-effective. Given that none of the end-around taxiway alternatives, including those proposed by the City of El Segundo are able to meet this objective render them infeasible. As stated on page 3-68, Section 3.2.9, the study (LAX Runway Incursion Studies, Phase III – Center Taxiway Simulation) concluded that the end-around taxiway greatly increased taxi time and delays for arriving aircraft and thereby increased the operational costs of this option and did not give an increased safety margin. The conclusion of the referenced study states the end-around option fails to meet three of the primary objectives of the Master Plan – improved efficiency (including both delay and costs), reduced environmental impacts, and improved safety. Thus, the end-around alternatives are further rendered infeasible.

The planning study is a part of the Appendix to the SAIP Draft EIR and does not infer that the alternatives analyzed in the planning study are feasible in the context of the LAX Master Plan. It states that the alternatives were suggested by the City of El Segundo and evaluated by LAWA in a planning study. The alternatives were not ever considered feasible, and were rejected as infeasible in the Master Planning Process.

SAIP-AL00005 - 54

Comment: E. The SAIP DEIR Must Thoroughly Analyze Alternatives Using Different Operational Configurations.

The SAIP DEIR must also consider whether, assuming that runway 25L was moved to the south, alternative operational configurations could be used to mitigate noise and other impacts on El Segundo. As explained by Professor Kanafani, with the exception of aircraft heading towards the facilities in the southern part of the airfield, there is no legitimate reason to permit aircraft exiting runway 25L to continue using taxiway A. Kanafani Memorandum, ¶ 6. Accordingly, the DEIR should analyze whether a requirement prohibiting such use (with the noted exception) would mitigate noise and air quality impacts on El Segundo. For similar reasons, the DEIR should also analyze an alternative that precludes use of taxiway A to bring A380's to takeoff on runway 25L. Other operational configurations may also be available that could minimize the SAIP's significant noise and air quality impacts, and CEQA requires LAWA to identify and analyze these alternatives.

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

Regardless of whether Runway 7R-25L is relocated, Taxiway A will remain available for aircraft operations when necessary. Typically, the only aircraft utilizing Taxiway A are taxiing to or from the cargo and other ancillary facilities located on the southernmost portion of the airfield accessible only by Taxiway A. As noted on page I-4, Section 1.2, Summary of Proposed Project, in the SAIP Draft EIR, a new 75 foot wide taxiway would be constructed between Runway 7L-25R and relocated Runway 7R-25L. A taxiway with 75 feet of pavement width can accommodate aircraft up to Group V, the largest of which is the Boeing 747-400ER. Airbus is expected to introduce its A380 aircraft for commercial service in late 2006 or early 2007. The Airbus A380 is a design Group VI aircraft and will be restricted from utilizing the new center taxiway due to the taxiway pavement width and the proximity between the proposed Taxiway and the runways. The Airbus A380 could land on

Runway 7R-25L in its current configuration. The use of the A380 at LAX is discussed in the LAX Master Plan and LAX Master Plan Final EIR.

The commentor's suggested operational restriction would not be necessary given that Taxiway A is already seldom, if ever, used by aircraft that would not be excluded from the proposed restriction. Thus, the suggested mitigation would not result in any meaningful improvement from existing conditions.

Finally, the commentor appears to believe that the prohibition or reduction of aircraft taxi operations on Taxiway A would minimize the SAIP's noise impacts on El Segundo. While this measure might reduce the exposure of taxi noise to areas south of the Airport, restriction to the aircraft operations on Taxiway Alpha would restrict the available taxi routes at the airport, therefore possibly increasing taxi time and delay with their consequential air quality effects. Furthermore, all restrictions to aircraft operations increase the potential for controller error and would therefore reduce the safety of operations.

SAIP-AL00005 - 55

Comment: VII. THE AIRPORT LAND USE COMMISSION HAS RULED THAT THE ENTIRE MASTER PLAN, INCLUDING THE SAIP, IS INCONSISTENT WITH THE STATE AERONAUTICS ACT.

Airport planning in California is governed in part by the State Aeronautics Act, Public Utilities Code sections 21670 et seq. ("the Act"). The Act aims to "protect public health, safety, and welfare by ensuring the orderly expansion of airports." To this end, the Act establishes the Los Angeles County regional planning commission as the Airport Land Use Commission ("ALUC") for the county. Public Utilities Code § 21670.2(a). It gives the ALUC the authority to decide appeals from "impasses" in the coordination of airport planning among public agencies. Id. On April 20, 2005, the ALUC ruled on impasse appeals of the Los Angeles City Council's approval of the Master Plan, brought by the City of El Segundo and the County of Los Angeles. El Segundo's appeals focused on the absence in the Master Plan of any means to limit the airport's capacity to the 78.9 million annual passengers ("MAP") that was the basis of the MPEIR's impact analyses. Without such limitation, impacts could exceed those reported in the MPEIR with no mitigation or public process, undermining the purposes of the Act. El Segundo also claimed the Master Plan's dismissal of a coordinated regional approach to airport development ran counter to the Act.

In its decision, which is attached to this letter as Exhibit 9, the ALUC ruled that "[a]pproval of the Master Plan while the MAP issue remains unresolved creates the potential for new noise and safety impacts to be introduced without adequate planning or mitigation and prevents the airport land use compatibility planning described in the Act from being accomplished, thereby thwarting the purposes of the Act." Exh. 9 at 4. On the regional approach issue, the ALUC ruled that "[a] regional approach to airport planning that provides for the growth of aviation facilities in undeveloped or less developed areas, such as Palmdale Regional Airport, where airport land use compatibility planning can be more effective[,] would be consistent with the purposes of the Act." Id. The ALUC further determined that "[a]irport land use compatibility planning cannot function in urban areas if airport planning does not include negotiation with surrounding jurisdictions." Id. at 5.

On these bases, the ALUC, the body charged with determining consistency with the Act, determined that the Master Plan is inconsistent with Public Utilities Code sections 21670(a)(1) and (2). Accordingly, the ALUC disapproved the decision to go forward with the Master Plan. As the ALUC informed LAWA in an August 22, 2005 letter (attached to this letter as Exhibit 10), implementing any aspect of the Master Plan, including the SAIP, is inconsistent with the ALUC ruling. Thus, the Project may not go forward unless and until four-fifths of the Los Angeles City Council vote to overrule the ALUC determination. Public Utilities Code § 21670.2(a).

Response: Please see Response to Comment SAIP-AL00001-1.

SAIP-AL00005 - 56

Comment: VIII. CONCLUSION

In order to cure the DEIR defects identified in this letter, LAWA must obtain substantial new information to adequately assess the proposed SAIP's environmental impacts, and to identify effective mitigation measures and alternatives capable of addressing the Project's significant environmental impacts. Before LAWA can consider whether to approve the Project, CEQA requires that the public be given a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated draft supplemental EIR.

Response: As demonstrated in the SAIP Draft EIR and the Responses to Comments on the Draft EIR, LAWA has complied with CEQA and has made a good faith effort to fully disclose the potentially significant environmental impacts of the SAIP, in the context of the LAX Master Plan and the LAX Master Plan Final EIR. The public has had a meaningful opportunity for 45 days, including a comprehensive public workshop, to review and comment on the information in the SAIP Draft EIR. Recirculation of the Draft EIR is not required because neither the comments on the SAIP Draft EIR, nor the responses thereto, have raised any new or more severe potentially significant environmental impacts, any changes in circumstances that would lead to new or more severe potentially significant environmental impacts or any of the other conditions that may require recirculation of the SAIP Draft EIR pursuant to CEQA and the CEQA Guidelines.

SAIP-AL00005 - 57

Comment: There is essentially no evidence anywhere that the proposed SAIP, which would add a centerline taxiway between runways 25R and 25L, is an effective means of dealing with the runway incursions caused by aircraft exiting runway 25L and crossing runway 25R. The SAIP-DEIR does not provide any such evidence.

1. First of all, from data available on LAX runway incidents in 2000 and 2003, it is clear that all such incidents are caused by human errors committed by either the pilots or the air traffic controllers. There is no evidence that there is an engineering problem with the design of the existing airfield, which meets all applicable standards and criteria. Adding a centerline taxiway does not guarantee that human errors will be reduced nor is it intended as a means of correcting the human error problem. Indeed, aircraft using the centerline taxiway after landing on runway 25L will still have to cross runway 25R to reach the terminals, and pilots and controllers can be expected to be equally prone to committing human errors with the centerline taxiway as without it.

Response: As discussed in Chapter 3 of the LAX Master Plan Final EIR and in Chapter 3 of the Supplement to the LAX Master Plan Draft EIR, the center taxiway will be instrumental in preventing runway incursions. The required aircraft turns associated with the center taxiway layout will provide time for pilots to fully acclimate to the airport surface environment, to comply with air traffic control taxi instructions, and to clearly see runway hold bars prior to crossing the inbound runway. This will greatly aid in promoting safety at the airport and preventing runway incursions.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Please also refer to Response to Comment SAIP-AL00005-52 regarding the consideration of alternative means to reduce the potential for runway incursions and the identification of the SAIP as the best and most efficient means of doing so.

SAIP-AL00005 - 58

Comment: 2. Although it reasonable to expect that the fact that aircraft exiting runway 25L and crossing runway 25R can be stored or queued on the centerline taxiway before being cleared to crossing 25R may reduce the probability of inadvertent incursion, there is no evaluation anywhere in the DEIR of this potential. In fact, if the evidence quoted from the studies conducted by NASA is any indication, there is reason to expect that the probability of runway incursions might in fact increase.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting

and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, contrary to the claims of the commentor, as discussed in Chapter 3 of the LAX Master Plan Final EIR, the NASA study indicated that air traffic controllers found the parallel center taxiway to be an operationally efficient solution to the primary cause of the most severe types of runway incursions.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Please also refer to Response to Comment SAIP-AL00005-52 regarding the consideration of alternative means to reduce the potential for runway incursions and the identification of the SAIP as the best and most efficient means of doing so.

SAIP-AL00005 - 59

Comment: 3. Available data on runway incursions at LAX in 2000 and 2003 show that of the incursions that occurred in those years (8 in 2000 and 10 in 2003) only half involved aircraft attempting to cross runway 25R after exiting from runway 25L. All were caused by blunders of the type that can occur with any airfield design. The other half involved various types of incursions on the other runways at LAX. Nothing in the SAIP addresses these other incursions, which are not any less severe.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, in an FAA study, "FAA Runway Safety Report: Runway Incursion Trends at Towered Airports in the United States – CY 1998 – CY 2001" discussed in Chapter 3 of the LAX Master Plan Final EIR, there were 38 runway incursions at LAX between 1998 and 2001. Of these 38 incursions, over 80% took place on the South Airfield Complex.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. The SAIP has not been purported to eliminate all runway incursions, but only to address those occurring as a result of aircraft landing on Runway 7R-25L and failing to stop short of Runway 7L-25R after exiting the runway. Please also refer to Response to Comment SAIP-AL00005-52 regarding the consideration of alternative means to reduce the potential for runway incursions and the identification of the SAIP as the best and most efficient means of doing so.

SAIP-AL00005 - 60

Comment: 4. By overlooking the human error basis of the runway 25R crossing incursions, and indeed all the other types of equally frequent runway incursions at LAX, the SAIP is not addressing the problem it purports to solve. There is no indication that any attempts were considered to deal with the human error and the ground traffic control issues that underlie runway incursions, and consequently no alternative solutions that would address these issues directly appear to have been considered.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, As discussed in Chapter 3 of the LAX Master Plan Final EIR and in Chapter 3 of the Supplement to the LAX Master Plan Final EIR, the center taxiway will be instrumental in preventing runway incursions. The required aircraft turns associated with the center taxiway layout will provide time for pilots to

fully acclimate to the airport surface environment, to comply with air traffic control taxi instructions, and to clearly see runway hold bars prior to crossing the inboard runway. All of these changes address the potential for human error in the runway incursion problem. This will greatly aid in promoting safety at the airport and preventing runway incursions.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Also see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Please also refer to Response to Comment SAIP-AL00005-52 regarding the consideration of alternative means to reduce the potential for runway incursions and the identification of the SAIP as the best and most efficient means of doing so.

SAIP-AL00005 - 61

Comment: 5. Probably the most effective alternatives to consider are those that deal with airfield traffic control. These entail the introduction of various technologies of audible and visual taxiway traffic control signals. Working with the FAA and the air traffic controller community LAX should explore and evaluate such alternatives prior to committing the vast expense of the current SAIP. Some similar programs at other airports are mentioned in Dwight Abbott's paper.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, in reference to the SAIP Draft EIR, please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Also see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. As described in the Response to Comment SAIP-AL00005-7, the most common runway incursions at the Airport occur when an aircraft arriving on Runway 25L exits at one of the high-speed exits, and then fails to stop the aircraft before overshooting the hold-bars for Runway 25R due to human error. The center taxiway would provide a location for the aircraft to stop after exiting Runway 7R-25L, without inadvertently crossing the hold-bars for Runway 7L-25R.

SAIP-AL00005 - 62

Comment: Alternative taxiway configurations should also be considered, including the re-design of hi-speed exits in order to reduce the speed of aircraft exiting runway 25L.

Response: This comment does not state how reducing the speed of aircraft exiting runway 7R-25L would reduce or avoid potentially significant environmental impacts of the SAIP. Rather, it relates to the particular design or operation of the airfield. As such, it is not a comment on the contents or adequacy of the SAIP Draft EIR. Nonetheless, the commentor is referred to Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR, which describes the various runway configurations that were assessed in the Master Plan.

SAIP-AL00005 - 63

Comment: The end-round taxiway alternatives should also be considered. Some of these are also mentioned in Abbott's paper. However, from the point of view of noise impact on the City of El Segundo, these may not be desirable since they will increase the use of taxiway A and may increase the noise impact.

Response: The commentor requests consideration be given to comments contained in SAIP-PC00011-3 through SAIP-PC00011-10. Responses to these comments are provided in Responses to Comments SAIP-PC00011-3 through SAIP-PC00011-10.

This comment points out the inconsistency in this particular commentor's position. On the one hand, the commentor claims that end-around taxiway alternatives should be considered and notes that alternatives should reduce or avoid potentially significant environmental impacts. On the other hand, the commentor states that the alternative he suggests would increase noise impacts on the City of El Segundo. This latter statement demonstrates that, for this reason, among others, the end-around taxiway is neither feasible nor preferable to the proposed SAIP.

SAIP-AL00005 - 64

Comment: 6. In the event that runway 25L was moved to the South to accommodate the centerline taxiway, there should be no reason left to use taxiway A by aircraft exiting runway 25L, with the exception of those headed toward the facilities in the southern part of the airfield. End-round taxiway operations using this taxiway to complement the circulation pattern for aircraft headed to the western part of the terminal complex should not be permitted. Nor should this taxiway be used to bring A380's to takeoff on runway 25L as appears to be envisaged in the SAIP. Since operations of the A380 will require modifications of standards (MOS), such modifications should include the creation of pathways that avoid the southern edge of the airport, including allowing the use of the centerline taxiway, should that be built.

Response: This comment does not raise an environmental impact or CEQA issue, but rather addresses future operational decisions regarding the airfield. Accordingly, no further response is required. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

Existing Taxiway A is seldom used by aircraft other than those taxiing to or from the cargo and ancillary facilities located along the southern boundary of the airfield. Given that Taxiway A, by the very nature of its location, is seldom used by aircraft other than those accessing the cargo and ancillary facilities along the south side of the airport, it is not clear how further restrictions would reduce operations in this part of the airfield.

The use of a particular taxiway is limited by the safe and effective use of airfield facilities as determined by LAX Air Traffic Control (ATC). Restricting sections of the airfield would add controller's workload and would likely increase the complexity of operations at LAX and consequently reduce the level of safety. Given that the one of the key goals of the LAX Master Plan is to improve airport safety, such action would not conform to the Master Plan.

Taxiway A would be used by A380 aircraft departing Runway 25L. With a proposed separation of approximately 450 feet to the parallel runway, this taxiway offers an unimpeded taxi path to the arrival/departure runway. By virtue of tail height and wingspan, the A380 cannot taxi on Taxiways B and C south of the Central Terminal Complex without restrictions to aircraft operations on adjacent runways and taxiways. Such restrictions would result in an increase in delay and thus an increase in air-quality impacts.

SAIP-AL00005 - 65

Comment: In summary, there is no evidence in the DEIR that the SAIP is at all an effective means of dealing the problem it is intended to resolve. Nor is there evidence that alternatives to this very expensive program have been adequately considered.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Also see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Please also refer to Responses to Comments SAIP-AL00005-52 through SAIP-AL00005-61 regarding the consideration of alternative means to reduce the potential for runway incursions and the identification of the SAIP as the best and most efficient means of doing so.

SAIP-AL00005 - 66

Comment: Introduction

At the request of Shute, Mihaly & Weinberger, Aviation Systems, Inc. ("ASI") has reviewed Chapter 4.5, Noise, and Appendix B of the South Airfield Improvement Project Draft EIR ("Draft SAIP EIR") with respect to noise issues of concern to the City of El Segundo and adjacent communities. The basic focus of this EIR is on the construction of a new 25L Runway displaced 55 feet south of the existing 25L, with a center taxiway between the new 25L and Runway 25R. Appendix B discusses, but does not fully analyze, an alternative to that action, i.e., the construction of an end-around taxiway from the existing 25L to the central terminal area. Two variations of that alternative are considered, an at-grade design and one that uses tugs to move aircraft from a staging area to the central terminal area.

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. The analysis of the end-around taxiway presented in Appendix B of the SAIP provides adequate information to eliminate it from further assessment in the EIR.

SAIP-AL00005 - 67

Comment: Comments

The Draft SAIP EIR Uses an Archaic Impact Threshold

The Draft SAIP EIR sets a "bright line" noise threshold at 65 dB CNEL, based exclusively on outdated FAA and state guidelines for noise impacts. It consequently disregards the noise levels in areas outside the 65 dB CNEL. However, as Schomer points out in "A White Paper: Assessment of Noise Annoyance", April 22, 2001, the FAA's 65 dB CNEL threshold policies on noise compatibility were developed in the 1970s, as were similar policies used by the Department of Defense ("DOD"). By contrast, nearly all other agencies and boards, standards setting bodies, and international organizations have established their noise policies in the last decade. These more recent standards have uniformly determined that the 65 db CNEL threshold is inadequate. A summary of these more recent standards is set forth in the Chart on the next page.

The World Health Organization ("WHO"), for example, published Guidelines for Community Noise in April 1999, based on over 25 years more worldwide research into noise effects than was available when the earlier FAA/DOD policies were developed. WHO, says Schomer, characterizes 55 dB CNEL 1 as engendering serious annoyance and creating an unhealthy environment and 50 dB CNEL as engendering moderate annoyance. Much of the underlying basis for 65 dB CNEL (or DNL) comes from annoyance studies in the 1970s culminating with the "Schultz Curve." This curve indicates that 65 dB CNEL/DNL corresponds to approximately 15% of the population being highly annoyed ("HA") and 55 dB CNEL/DNL (the EPA'S serious annoyance level) corresponds to approximately 5% HA people. In the 1990s, however, Miedema & Vos, in their "Exposure-response relationships for transportation noise" published in the Journal of the Acoustical Society of America, indicated that the degree of annoyance varies depending on the source of the noise. They found that at 65 dB CNEL/DNL approximately 28% of the population is annoyed by aircraft noise, 16% by road traffic and 9% by railroad noise. At 55 dB CNEL/DNL, approximately 10% would be annoyed by aircraft noise, and even at 50 dB CNEL/DNL approximately 5% would be annoyed by aircraft noise.

In other words, 65 dB CNEL, in the light of the research over the last 25-30 years, is no longer considered by most parties to be the appropriate standard for determining when aircraft noise becomes excessive and a significant adverse impact on environmental quality. LAWA's uncritical reliance upon the fact that it has not yet been supplanted as the state standard and the FAA guideline improperly ignores this research. People outside the 65 dB CNEL contour regularly complain about excessive aircraft noise affecting their quality of life. LAWA's refusal to use any of the more recent standards effectively masks these very real impacts.

Moreover, adding a 55 dB CNEL contour with associated analysis on area and population would be a simple remedy for the Draft SAIP EIR, bringing it in line with current thinking and providing more comprehensive disclosure of the impacts related to this action.

Chart 1: U.S. and International Agencies and Organizations Using Standards Below 65 dB CNEL.
[Please see original document for chart.]

1 WHO actually references DNL which is mathematically similar to CNEL but without the evening weighting of 4.77 dB to each noise event.

Response: Under CEQA Guideline 15064(b), a lead agency has discretion to formulate standards of significance for use in an EIR as long as a reasonable basis exists for using those standards. The agency may use its judgment regarding where the line should be drawn between impacts deemed significant, and those deemed less than significant, provided that its judgment must be based on scientific information and other evidence to the extent possible. (See *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App. 4th 277.)

As explained in Subtopical Response TR-N-2.2 in the LAX Master Plan Final EIR, the Federal Interagency Committee on Aircraft Noise (FICAN) has, on several occasions, reviewed the adequacy of the 24-hour 65 DNL (CNEL in California) for the delineation of areas exposed to noise levels incompatible with sensitive land uses and has consistently rejected any reduction. Member agencies of FICAN include the U.S. Army, U.S. Air Force, U.S. Navy, National Park Service, Federal Aviation Administration, U.S. Environmental Protection Agency, National Aeronautics and Space Administration and the Department of Housing and Urban Development. The State of California, through Title 21, Section 5006 of the Code of Regulations, identifies standards that may be used as CEQA thresholds for the description of aircraft noise in California. The 65 dB CNEL has been established as the State noise criterion acceptable to a reasonable person residing in the vicinity of an airport. The Federal Aviation Administration has consistently agreed with the findings of the FICAN and continues to accept the 65 DNL/CNEL as the Federal standard. The State's recently republished Airport Land Use Compatibility Handbook provides guidance to Airport Land Use Commissions based on the 65 CNEL standard.

The 65 CNEL standard is thus a widely recognized and widely used standard of significance of noise impacts associated with airport projects that LAWA appropriately selected for use in the SAIP Draft EIR. See also Topical Response TR-SAIP-N-1 regarding off-airport noise impacts of SAIP construction-related activities.

SAIP-AL00005 - 68

Comment: End-around Taxiway "Alternatives"

The two alternative end-around taxiway designs (i.e., at-grade and tugs) are discussed in Appendix B to the Draft SAIP EIR. Section 10 of Appendix B purports to evaluate the noise effects of these two design alternatives in contrast to noise associated with the center taxiway featured in the SAIP and provides some assumptions with respect to modeling the noise of these three scenarios. But, despite its statement of intent to do so, the section really does not present results for the at-grade alternative and only shows a very rudimentary figure (Figure 9, Page 21) comparing 100 dB SEL contours for the end-around tugs alternative and the center taxiway design of the SAIP. Whether this figure is accurately labeled is unclear because the modeling assumptions state that "tug operations do not produce any measurable noise..." It may be that Figure 9 is really comparing the at-grade alternative noise, not the tugs alternative, with the center taxiway. Regardless, we do not have a complete picture; nor is there any apparent consideration of feasible measures to mitigate the taxi noise of the end-around design.

There is no presentation of data showing the area and population that might be affected by the end-around designs or the center taxiway either. There is only a statement in Section 1, unsupported by any analytical data, that the "end-around taxiway designs would introduce taxi noise closer to El Segundo as more aircraft would be directed to proposed taxiways closer to noise sensitive areas..."

Response: As stated on page 3 of the Modified End-Around Taxiway Operations Analysis presented as Appendix B to the SAIP Draft EIR, the document is a planning study not intended as a comprehensive environmental analysis. Further, the planning study states: due to limitations of simulation modeling, evaluation of the end-around taxiway at-grade design is based on engineering rather than environmental factors. FAA-approved simulation and modeling computer programs are

not capable of differentiating the subtle noise variations associated with taxiway grade differences for taxiing aircraft. Therefore, noise and air quality impacts, to the extent that they can feasibly be modeled, are used in this study simply to assist in gauging the overall relative benefits or impacts of the two suggested modifications to the end-around taxiway design.

As stated on the Exhibit title, Appendix B, Figure 9 presents the 100db SEL noise contours for the End-Around Taxiway with Tugs alternative relative to the center taxiway alternative. Further the text of Appendix B states the following on page 19: The noise analyses for this study were completed for the Sound Exposure Level (SEL) metric. This metric studies the cumulative effects of A-weighted noise. The metric does not weight the noise for the time of its occurrence, nor does it average the noise over 24 hours like the Community Noise Equivalent Level (CNEL) metric used in the LAX Master Plan. Instead, it is simply a measure for the total cumulative noise that the areas surrounding the airport receive during the entire study day as if it had all occurred simultaneously within a period of one second. Consequently, the plots indicate a higher decibel level than will ever actually be heard at a given location within the contours, but the contours are suitable for purposes of comparing the qualitative differences in the surrounding community noise exposure of the two scenarios.

The 100 dB SEL noise contours are presented in Figure 9 for both the end-around taxiway with tugs design and the center taxiway design. As shown in this figure, the southern boundary of the contour for the End-Around configuration extends substantially farther into the El Segundo community and farther west than the center taxiway contour.

Appendix B also states, on page 19, the following: Tug operations do not produce any measurable noise in this analysis. Auxiliary Power Unit (APU) and diesel tug operation noise were not accounted for.

Therefore these sources of potential noise were ignored in this analysis resulting in a conservative estimate due to the fact that, if these noise sources were accounted for, the potential noise of this alternative would, if different, be greater.

Figure 9 of Appendix B also presents data showing the area and population that might be affected by the end-around designs or the center taxiway in a graphical format, as stated on the exhibit title and shown in the exhibit.

Further, the commentor acknowledges that the planning study presented in Appendix B states the following: the end-around taxiway designs would introduce taxi noise closer to El Segundo as more aircraft would be directed to proposed taxiways closer to noise sensitive areas.

Please see Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP.

SAIP-AL00005 - 69

Comment: New Large Aircraft (NLA)

The Draft SAIP EIR offers no more information than did its predecessor program environmental review documents on the introduction of NLAs and their effect on the noise environment following construction of the new Runway 25L. The problem with this is that the LAX Master Plan, by virtue of its design for this new runway, designates 25L for NLA usage, since it will be 200 feet wide and capable of handling these NLAs. Of particular concern is the fact that the new 25L runway will be the only runway capable of handling the Airbus A-380 aircraft which is expected in service in 2006. While it is clear that all A-380s using the airport will utilize this runway, the SAIP DEIR provides absolutely no empirical information about the noise impacts of these aircraft.

The underlying program EIR/EIS on the LAX Master Plan similarly provides no such data. The program EIR/EIS does claim that the fleet mix, and consequently the noise modeling, includes a shift to vaguely-named "wide body aircraft." It then asserts that many of the future aircraft will be quieter than those they replace. Table F4, 1-9 (page 4-58) in the FEIS/FEIR shows an approximately 100% increase in "Heavy Jets" by 2015 in every alternative. This presumably was incorporated into the INM programming for the post-construction period, but despite the implied

suggestion that the term "heavy jets" includes NLAs, the reality is that none of these so-called "heavy jets" used in the noise modeling are A-380s.

The absence of any empirical evidence regarding the A-380's noise impacts is particularly troubling because, due to extensive publicity, it is well known by LAWA and the general public that a significant component of this increase will be Airbus A-380 aircraft. Nor can this omission be rectified by the vague assurances from Airbus Industries that the A-380 will meet stringent noise goals like those of London Heathrow. The aircraft has not yet been noise certified by the FAA, and in light of Airbus's obvious self-interest in playing down its product's impacts, its assurance may not be relied upon. LAWA's assumption that the 747-400--the so-called design aircraft for the LAX Master Plan--is an adequate surrogate for the NLAs is similarly unsupported. This assumption ignores the fact that the A-380 is a significantly bigger aircraft than the 747-400.

Apparently, LAWA expects residents who will be living in proximity to the approaches and departures of these huge (up to 800 passenger) aircraft in 2006 to "take it on faith" that the A-380 will be quieter than the significantly smaller aircraft that they hear today. From the information set forth in the Draft SAIP EIR, however, it is simply not possible for decision makers or the public to determine whether these NLAs operating on the new Runway 25L (which will be 55 feet closer to El Segundo) will cause greater noise impacts than the smaller aircraft they replace.

Response: The content of this comment is similar to comment SAIP-AL00005-34; please refer to Response to Comment SAIP-AL00005-34. The majority of this comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to, or raise environmental issues specific to the SAIP or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-AL00005 - 70

Comment: Baseline

The Draft SAIP EIR uses 2003 as the baseline year to evaluate the proposed construction of the new 25L, but relies exclusively on the Master Plan program EIR/EIS's use of a 1996 baseline to measure the post-construction environmental effects of flight operations on the new 25L.

A review of the fleet mix and operations data for 1996 and 2003 indicates that the program LAX Master Plan EIR/EIS comparison of 2015 versus 1996 yields a more favorable outcome than would a comparison of 2015 versus 2003. To begin with, the total operations for 2015 and 1996 are virtually the same, i.e., 774,000 forecast operations for 2015 (based on Table S-7, S-C1, Supplemental Aircraft Noise Technical Report to the LAX program EIR/EIS) and 757,000 actual operations in 1996 (from Table S-4 of the Technical Report). In contrast, by 2003 operations had actually declined to 623,000 (from Table M-2, Supplemental Noise Analysis Information, Appendix M of the Draft SAIP EIR). Of the total operations for these years, 234,700 are forecast to be "heavy jets" in 2015, whereas in 1996 there were 128,845 actual operations by "heavy jets." By 2003, this figure had dropped off to 104,000.

Focusing in on the operations on the existing and future Runway 25L, the following tabulations confirm that the program LAX Master Plan EIR/EIS comparison of 2015 to 1996 (which the SAIP EIR exclusively relies upon) paints a more favorable comparison than would a comparison of 2015 to 2003.

25L Arrivals
[Please see original document for table.]

25L Departures
[Please see original document for table.]

25L Equivalent Arrivals
[Please see original document for table.]

Even more telling, though, is to convert these operations data into equivalent operations, i.e., to apply the weighting factors that are used in the CNEL methodology. Those weighting factors include a multiple of ten for nighttime operations and a multiple of three for evening operations².

25L Equivalent Arrivals
[Please see original document for table.]

25L Equivalent Departures
[Please see original document for table.]

25L Equivalent Total Operations
[Please see original document for table.]

In sum, by relying upon the program LAX Master Plan EIR/EIS's 1996 baseline, the Draft SAIP EIR overstates the noise reduction benefit associated with post-construction operations of the new Runway 25L by a significant number (over 43,000) of component equivalent operations.

² These multiples are the factors applied to numbers of operations. When dealing with noise levels the weighting factors are 10 dB for nighttime noise events and 4.77 dB for evening events.

Response: Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR. Please see also Responses to Comments SAIP-AL00005-8, SAIP-AL00005-9, SAIP-AL00005-10, SAIP-AL00005-11, SAIP-AL00005-12, SAIP-AL00005-13, SAIP-AL00005-14, and SAIP-AL00005-15. The comment pertains more to the LAX Master Plan and/or LAX Master Plan EIS/EIR, than it pertains to, or raises, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to the remaining comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-AL00005 - 71

Comment: Speech Interference

Aircraft noise disrupts routine daily activities such as radio or television listening, telephone use, and family conversation. Like its predecessors, however, the Draft SAIP EIR provides only minimal, obfuscated information on speech interference effects, despite the fact that aircraft noise causes significant annoyance to residents in El Segundo and other communities near LAX.

LAWA claims that the CNEL methodology accounts for impacts on daily activities, including speech interference. This statement is true in the limited sense that sound exposure level ("SEL"), a single-event measurement, is included as a component element of CNEL's mathematics. However, this limited accounting for SEL provides no meaningful information about how these noise impacts will actually be experienced by area residents because those measurements are obscured within the time-averaging nature of CNEL.

LAWA also asserts that the Time Above ("TA") metric (minutes of exposure above a specified SEL) provides sufficient information to assess speech interference. In asserting these claims, LAWA ignores the request of El Segundo and other communities around LAX for a different and more understandable way of relating information on speech interference and the other annoyance factors. Supposedly, according to LAWA, the Draft SAIP EIR TA grid-based tabulations for incremental values at 65 dBA to 95 dBA should suffice. However, these tabulations of the time in minutes above, for example, 65 dBA within a certain grid cell do not really provide a lay reader with a basis for understanding what the speech interference frequency might be. It might tell you that within a certain grid cell, 65 dBA will be exceeded 5 or 10 minutes per day. Nevertheless, this technique does not address the most pressing questions for most residents: how many times per day will my backyard conversations, television viewing etc. be interrupted by overriding noise.

According to both the U.S. Environmental Protection Agency in its seminal "Levels Document" (Information on Levels of Environmental noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety EPA 1974) and the Federal Interagency Committee on Noise

(FICON) document Federal Agency Review of Selected Airport Noise Analysis Issues FICON Federal Interagency Committee on Noise Aug 1992, "wherever intrusive noise exceeds approximately 60 dB indoors, there will be interference with speech communication." These agencies and their documents are trusted sources with respect to environmental noise and impact on human activity.

By adding 14 dB of noise attenuation by the typical residential structure in the LAX environs, as reported by the LAWA Noise Management Agency, it can be concluded that outdoor noise exceeding 74 dB will also cause intrusive noise interference indoors. To avoid obfuscation and provide information on this aspect of annoyance that is actually understandable and meaningful to residents of El Segundo and other communities around LAX, the Draft SAIP EIR simply needs to provide a 74 dB SEL Number-of-events Above ("NA") contour like that which will be discussed later relative to the awakenings aspect of annoyance. Similarly, since it is reasonable to conclude from the EPA and FICON documents that 60 dB events will also affect outdoor communication, a 60 dB SEL NA contour should be provided to enable the communities around LAX to infer what the effects would be on outdoor speech communication. With this straightforward information, residents would then be able to meaningfully assess how many times per day they might be subject to speech interference. By contrast, the information provided in the Draft SAIP EIR does not permit residents to make this assessment.

Response: Section 4.5 of the SAIP Draft EIR addresses the effects of single event aircraft noise relative to speech interference within the classroom setting. Supporting technical data and analyses related to the single-event threshold of significance is provided in Appendix S-C1 of the LAX Master Plan Final EIR. Outside the classroom, numerous studies of human perception and annoyance have indicated that the 65-decibel (dB) level of Community Noise Equivalent Level (CNEL) is a reliable standard for determining when the community will become "highly annoyed" by aircraft noise. The Federal Aviation Administration has developed criteria, which describe what land uses are acceptable within a certain noise level contour. These compatibility criteria and an analysis of the build alternatives are described in Appendix M of the SAIP Draft EIR. Please see Response to Comment SAIP-AL00005-67 regarding the use of 65 CNEL. Please also see Topical Response TR-SAIP-N-1 regarding noise impacts of construction-related activities under the SAIP.

The majority of the comment relates to supplemental metrics. The purpose of reporting supplemental metrics is to provide information that is not easily captured by CNEL. Supplemental metrics can be used by the general public to assess single-event levels and reach a better understanding related to the aircraft noise impact assessment although such notices are not generally recommended by the FAA as the basis of standards of significance. The Time-Above metric is used and accepted by other agencies such as the FAA as an effective supplemental metric to assess the total exposure over an average annual 24-hour period for a specific single-event level. It can address how long a specific level may be detected by a person. The number of event metric does report how frequently an specified noise level may occur, but does not address how long. It is conceivable that an event can exceed a given level, but not last long enough to cause annoyance or speech interruption. Time-Above is also very easily understood by the general public, and can directly relate the values to their own experiences.

Lmax (the peak noise level of an event) is the highest level that people actually hear when an aircraft passes over. The Lmax values presented in Appendix M of the SAIP Draft EIR (Section M.1.6) may be used by the reader to assess what the potential highest peak level he or she may hear compared to what they hear today. Once again, this metric provides information that one can directly relate to; therefore, come to a better understanding of the CNEL exposure results.

Presenting the same metrics in the same format also provides the reader the ability to compare values stated in the LAX Master Plan Final EIR, which foster consistency. The metrics and reported format used for the SAIP Draft EIR is also used and accepted by other agencies such as the FAA. A recent EIS study conducted by the FAA that used similar metrics and tabular reporting is the O'Hare Modernization Program Final EIS (August 3, 2005).

SAIP-AL00005 - 72

Comment: Sleep Disturbance

The Draft SAIP EIR uses the same threshold of significance for sleep disturbance impacts as its predecessor program EIS/EIR on the LAX Master Plan, namely the SEL at which 10% of the population would be awakened at least once every 10 days, which is claimed to be 94 dB SEL outdoor and 81 dB SEL indoor (with windows open). This particular threshold doesn't appear in any of the noise literature over the last dozen years, from Ollerhead et al in 1992 to Passchier-Verneer et al in 2002. The methodology appears to be derived from a 1997 study by FICAN wherein it was reported that the expected percent of awakenings is equal to $(0.0087) \times (\text{SEL} - 30)$. Assuming 10% awakenings as a goal, this equation produces an indoor SEL of 81 dB (which translates to 94 dB outdoor). The mystery is why 10% was chosen.

In its Guidelines for Community Noise of April, 1999, the World Health Organization reports on a substantial body of research, particularly that of Vallet & Vernet (1991) in their "Night aircraft noise index and sleep research results" published in *Internoise 91*. The report concludes that the L_{Amax} to prevent nighttime awakenings should not exceed 45 dBA, and it should be even less for sensitive people. In fact, WHO's guideline value for sleep disturbance in indoor bedrooms is 45 dB L_{Amax}. WHO further reports that studies by Passchier-Verneer (1993); Finegold et al (1994); and Pearsons et al (1995) show an increase in awakenings at indoor SEL values of 55- 60 dBA. Relative to aircraft noise events, an L_{Amax} of 45 dBA would be equivalent to SELs of 55-60 dBA. Based on the outside to inside attenuation reported in the Draft SAIP EIR, the outdoor SELs would then be 69-74 dBA. Applying these levels to the FICAN equation results in awakenings ranging from 2.8% to 3.8% of the population. Accordingly, based on this widely-accepted body of research, the appropriate threshold of significance should be set at approximately 3% awakenings, rather than the 10% arbitrarily selected by LAWA.

In the Oakland Airport EIR, which was responding to the Berkeley Jets Court's order to present information about nighttime SELs and sleep disturbance, the airport used a number of scenarios with awakening levels ranging from 1.9% to 7.9%, depending on sound attenuation variables such as whether windows were open or closed. This process led to more reasonable threshold levels of 80, 85 and 90 dB SEL outdoors than did LAWA's analysis here.

The SEL values used in the Oakland EIR, though higher than WHO Guidelines, do have support in the scientific literature. Building on the work by Vallet & Vernet, Miedema published "Elements for a position paper on night-time transportation noise and sleep disturbance" in a 2003 TNO Inro Report, wherein he established an equation for relating nighttime noise, SELs, and the number of events,

$L_{\text{night}} = \text{SEL} + 10 \log N - 10 \log (t)$; where L_{night} is the night time equivalent noise level, N is the number of events, and T is the duration of the night in seconds.

Using 45 dB for L_{night} for consistency with Vallet & Vernet and with WHO, Miedema's relationship leads to the conclusion that SELs of 90, 85 and 80 dB will result in exceeding the L_{night} , three times and ten times per night, respectively.

These SELs were selected by Oakland to provide additional information pursuant to court order, not to create a threshold of significance. Under the Oakland circumstances, that approach was pragmatic. However, since LAWA's intent here is to set a threshold of significance, it would be more appropriate to adhere more closely to the WHO Guidelines.

It is reasonable to conclude that the threshold of significance for nighttime awakenings or sleep disturbance at LAX should be closer to the WHO Guidelines outdoor equivalent value of 74 dB SEL rather than 94 dB SEL used in LAX environmental noise analyses. A sensible compromise level in line with Miedema's relationship and with the Oakland work might be 85 dB SEL. The corresponding indoor SEL would be 71 dB and using the FICAN curve, the awakenings level would be 6.7%. This also would be much closer to the threshold for capturing the response by noise sensitive people, which was SAIP DEIR's stated goal in selecting 94 dB SEL.

Regardless of threshold value, the way in which the information is depicted in the Draft SAIP EIR fails to provide anything remotely approaching full disclosure of nighttime awakening potential. The contour line presented in the Draft SAIP EIR represents the connection of all of the grid cells wherein there is at least 0.1 events per night of 94 dB or higher, which the document says

correlates to the threshold of significance, i.e., once every ten nights. So, the contour line is actually a number of events line. But the area enclosed by the contour is simply an area that is exposed to events of 94 dB or higher. It is impossible to determine the number of events for any given location. That figure depends on location within the contour, but is obviously more than 0.1. Therein lies the problem with this form of information display: a resident at any given point within the enclosed area of the contour does not know how many times per night she will be impacted by a noise event of 94 dB or higher; she only knows that it will happen. Section 1.5 of the Draft SAIP EIR states that there will be an increased effect on noise sensitive and residential land uses, that more dwelling units will be exposed to SELs of at least 94 dB. But to be able to make an informed judgment, a resident needs to have some understanding of not only the magnitude but also the frequency.

Wyle Labs presents a much more informative approach in a 2003 study using a Number-of-events Above (NA) metric. The NA metric establishes and depicts zones in which a specified number of noise events per night exceed a specified SEL. The Australian Department of Transportation ("DOT") has been using this metric extensively. In fact, Wyle Labs prepared NA 70 dBA4 contours for the Australian DOT for the Sydney and Brisbane Airports. These contours delineated zones in which a selected number of events above 70 dBA occurred, e.g., 10-20, 20-50, 50-100, 100-200 and more than 200. The Oakland Airport EIR also used this approach, supplying contour sets for their selected thresholds, i.e., 80, 85 and 90 dB SEL. Each set is comprised of concentric contours with each component contour of the set representing a number-of-events exceeding the threshold level. For example, the Oakland EIR has an NA 80 dB SEL contour set with constituent contours tagged with "1-5 events", "5-10 events", "10-20 events" and so on. Thus, the Oakland document (like the Sydney and Brisbane documents) not only uses more reasonable threshold levels, it also gives more useful information on the impact frequency.

To provide meaningful assessment of sleep disturbance impacts on the residents of El Segundo and nearby communities, LAWA should prepare a noise analysis using similar NA metrics. In this regard, we note that Section M.1.1.2 of Appendix M of the Draft SAIP EIR does describe the NA metric. It also states that an NA assessment of nighttime sleep disturbance was presented in SC-1 Supplemental Aircraft Noise Technical Report of the program LAX Master Plan EIR/EIS. That document, however, does not contain the referenced assessment.

3 Actually, based on the average outside to inside attenuation reported in the Aerospace Information Report 1081 by the Society of Automotive Engineers for residential structures in the LAX environs of 14.3 dB, the outdoor SEL should be 94.3 dB rounded up to 95 dB. The Draft SAIP EIR in Appendix M, § M.1.4.3 says the threshold was lowered to 94 dB to account for noise sensitive people. Of course that level would capture the noise sensitive people but would be substantially higher than their threshold.

4 It should be noted that the Australian DOT utilized a threshold consistent with the WHO Guidelines.

Response: The commentor suggests using an alternative threshold to quantify significant impacts related to nighttime awakenings, and an alternative means of disclosing those impacts. Please see Response to Comment SAIP-AL00005-25 and Topical Response TR-SAIP-N-1 regarding the off-airport noise impacts associated with the SAIP. As discussed in those responses, LAWA has adopted a significance threshold for, and means of disclosing, nighttime awakenings using a widely accepted and recommended methodology of quantifying the relationship between aircraft noise and sleep disturbance, and mapping a contour line showing where significant nighttime awakening impacts may occur. This relationship is accepted and recommended by FICAN, which includes agencies such as the FAA, EPA, NASA, and HUD. On the basis of that authority, LAWA has determined that the means selected is an appropriate and adequate means of evaluating and disclosing the project's nighttime awakening impacts due to project-related aircraft noise.

See also Responses to Comments SAIP-AL00005-26 through SAIP-AL00005-29 and SAIP-AL00005-71.

SAIP-AL00005 - 73

Comment: At your request, we have reviewed portions of the Draft Environmental Impact Report (EIR) for the South Airfield Improvement Project (SAIP) at LAX to identify construction noise issues that may be of concern to the City of El Segundo. The following provides our findings:

1. On page IV-157, Section 4.5.2.4, a noise reduction of 4.5 dB per doubling of distance was used for construction equipment on the basis that the noise would travel over an open grassy field. Since both the airport and Imperial Highway are paved (with the exception of a small vegetated strip between the runway and taxiway), this noise reduction factor is inappropriate. The EIR should have used the more reasonable (and conservative) value of 3 dB per doubling of distance. As a result, the EIR likely underestimated construction equipment noise levels.

Response: The commentor is correct in describing 3 dB per doubling of distance lateral attenuation for hard surface attenuation. This lateral attenuation factor, however, also assumes an unobstructed surface. Through visual surveys along Imperial Highway parallel to the construction site, there are several buildings between the site and residential areas within close proximity of the airport. There is also evidence of additional vegetation and landscaping along Imperial Highway, including trees. In some cases, 6 dBA may be a more appropriate lateral attenuation factor due to the obstructions along the construction site. Use of the 4.5 dB lateral attenuation factor, therefore, is considered somewhat conservative, and is consistent with what has been used for construction equipment noise evaluations in the LAX Master Plan Final EIR (refer to Section 4.1.2.4) of the LAX Master Plan Final EIR. The 4.5 dBA lateral attenuation is also recommended in the Draft L.A. CEQA Thresholds Guide (page I.1-4).

SAIP-AL00005 - 74

Comment: 2. On page IV-173, Section 4.5.3.2, no basis is given for asserting that construction noise would likely be inaudible to residents on Imperial Highway, especially during the early morning hours.

Response: The most dominant source of noise for residents along Imperial Highway that are closest to the construction site (between Sheldon Street and Hillcrest Street) is aircraft noise operating at the south airfield. This is evident due to the close-proximity of the airport and the area's location within the 2003 Baseline 70 to 75 CNEL noise level area as shown in Exhibit 4.5-5 of the SAIP Draft EIR. According to the INM calculations reported on Table M-12 of Appendix M of the SAIP Draft EIR for the PRK10 (park) grid point shown on Exhibit 4.5-4, CNEL levels can be as high as 73.8 dBA. This indicates frequent high-level single events caused by aircraft arrivals and departures. Calculated Time-Above 75 dBA data shown on Table M-14 indicates that PRK10 is exposed to single-event levels above 75 dBA for 44 minutes a day for an average annual condition. PRK10 can be exposed to single-event levels above 85 dBA for about 3 minutes on an average annual day as indicated on Table M-15. In most cases, it is reasonable to conclude that construction noise during Project (2005) conditions that may be detected at these residences will not exceed aircraft event levels experienced in 2003 Baseline conditions. According to Table M-15 of Appendix M of the SAIP Draft EIR, sites similar to PRK10's location are expected to experience single-event levels above 85 dBA. As illustrated in Exhibit 4.5-9 of the SAIP Draft EIR, most of the residences between Sheldon St. and Hillcrest St. along Imperial Avenue will still experience CNEL levels ranging between 70 and 75 dBA during Project (2005) conditions. This reasoning serves as the basis for asserting that construction noise would likely be inaudible to residents. Without aircraft operations, an individual would more likely detect construction noise.

SAIP-AL00005 - 75

Comment: 3. On page IV-173, Section 4.5.3.2, the report appears to analyze construction traffic and equipment noise using CNEL. This is inconsistent with the approach described in other portions of the report, and with the threshold of significance identified in Section 4.5.4.2.

Response: The error is noted. In response, page IV-173 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-AL00005 - 76

Comment: 4. On page IV-173, Section 4.5.3.2, no daytime or nighttime ambient Leq(h) noise levels are presented for assessing impacts. (Refer to Comment #9.) These levels should be available from monitor ES2.

Response: "Comment #9" refers to comment SAIP-AL00005-81; please see Response to Comment SAIP-AL00005-81 regarding the metric utilized for construction equipment and construction traffic noise impact analysis.

SAIP-AL00005 - 77

Comment: 5. On page IV-173, Section 4.5.3.2, the report indicates that ambient aircraft peak noise levels are estimated to be above 85 dBA. The exact levels should be available from monitor ES2.

Response: The estimated peak levels are specific to residential areas closest to the construction site. Monitoring site ES2 does not provide an accurate assessment of peak aircraft noise events for the areas closest to the site, because the monitor is not located within a similar CNEL range between 70 and 75 CNEL. Therefore, the FAA's Integrated Noise Model is used to calculate single-event levels based on 2003 Baseline conditions. Supplemental metrics reported in Appendix M (Section M.1.6) for grid points PBS049 (Imperial Avenue School Special Education Facility) and PRK10 (Park) were used to establish the estimated range of peak aircraft noise event levels for areas along Imperial Avenue nearby the construction site. Both sites indicate time above 85 dBA (refer to Table M-15 in Appendix M of the Draft EIR). PRK10 also indicates time above 95 dBA, but PBS049 does not (refer to Table M-16 in Appendix M of the Draft EIR). The highest peak level calculated at PRK10 is 101.8 dBA and 93.5 dBA for PBS049 (refer to Table M-18 in Appendix M of the Draft EIR). For the entire area, it is reasonable to assume that peak aircraft levels will range from 85 dBA up to 102 dBA.

SAIP-AL00005 - 78

Comment: 6. On Exhibit 4.5-8, no basis is given in the text for defining a "construction noise impact area."

Response: An Exhibit error is noted. In response, Exhibits 4.5-8 and 4.5-16 have been revised. The construction equipment noise impact area is now depicted on Exhibit 4.5-16. The basis for the construction equipment impact area is described in the first paragraph on page IV-231, where Exhibit 4.5-16 is referred. Please see Chapter IV, Corrections and Additions to the Draft EIR regarding the exhibit change and corrections made to the first two paragraphs on page IV-231.

SAIP-AL00005 - 79

Comment: 7. On page IV-182, Section 4.5.4, there is no mention of the El Segundo noise ordinance standards when defining the thresholds of significance.

Response: The content of this comment is similar to comment SAIP-AL00005-31; please see Response to Comment SAIP-AL00005-31.

SAIP-AL00005 - 80

Comment: 8. On page IV-183, Section 4.5.4.2, there is no basis, using the LA CEQA guidelines, for separating construction traffic noise from construction equipment noise. The cumulative impact of both should be assessed relative to the guidelines. The report consistently assesses the impact of each separately.

Response: The methodology of calculating construction traffic and equipment noise is consistent with that of the LAX Master Plan Final EIR. The L.A. CEQA Thresholds Guide does identify both as separate categories: operational (roadway activity) and construction site (site activity). As discussed in the Draft L.A. CEQA Thresholds Guide, cumulative construction noise impacts include other construction activities that would coincide with the project's construction operations. Section 4.5.7.2

of the SAIP Draft EIR discusses other projects and cumulative impacts. For cumulative traffic noise impacts, the Draft L.A. CEQA Threshold Guide suggests the use of future traffic levels that include trips from other projects that utilized the same routes. Section 4.5.7.1 of the Draft EIR addresses the cumulative impact assessment as recommend by the L.A. CEQA Thresholds Guide. Section 4.5.7.3 of the SAIP Draft EIR addresses the cumulative impact associated with aircraft, construction traffic and construction equipment activity as a whole. Combined, these sections of the SAIP Draft EIR address the cumulative impacts of traffic noise and construction equipment noise.

SAIP-AL00005 - 81

Comment: 9. On page IV-183, Section 4.5.4.2, the report identifies an Leq(h) criterion for assessing construction traffic noise. This is inconsistent with other portions of the text which describe the LA CEQA guidelines in terms of CNEL. Also, the LA CEQA guidelines have two criteria which the EIR must address. As indicated in the guidelines, "A project would normally have a significant impact on noise levels from construction if:

a. Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or

b. Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday."

The first criterion could be interpreted as referring to a daily CNEL value or an hourly Leq value, while the second clearly refers to an hourly Leq value during specific times of the day and days of the week. If the project's construction activities exceed either of these two criteria, a significant impact is assessed. Therefore, both must be considered in the analysis.

Response: Please see Response to Comment SAIP-AL00005-75 regarding corrections to page IV-173. The corrections to page IV-173 provide a more clear indication that Leq(h) is the metric used to assess construction traffic noise impacts on the designated haul routes, and CNEL is used to assess construction equipment noise from the construction site.

The CNEL metric is adequate to support a determination whether construction equipment noise impacts evaluated in the SAIP Draft EIR surpass both thresholds of significant impact for construction equipment noise. General construction scheduling is made available for the Draft EIR, but does not provide specific hours and/or days of the week for each activity at each work area throughout the term of the project, noise levels of the specific equipment that will be used, and the expected full-capacity utilization factor for each piece of equipment. Without this type of data, the fluctuation in noise levels over the term of the project is estimated using the loudest activity noise level(86 dBA Leq) provided by the Draft L.A. CEQA Thresholds Guide along with an estimated percentage of time during each hour that activity will create the loudest level (86 dBA Leq).

To account for the fluctuation in noise levels over a 24-hour period of the project, a time-averaged noise metric is used. The L.A. CEQA Thresholds Guide recommends CNEL. This metric takes into account the reduced ambient noise levels and increased sensitivity to noise during evening and nighttime hours. The L.A. CEQA Thresholds Guide also requires a quantification of ambient noise levels measured in CNEL. With the use of the CNEL metric, the construction equipment noise analysis in the SAIP Draft EIR does account for reduced ambient noise levels at night, and compares the construction equipment noise impacts of the SAIP against an ambient CNEL that also takes into account reduced nighttime levels. Therefore, the SAIP Draft EIR's construction noise impact analysis identifies and discloses whether either threshold of significance will be surpassed.

SAIP-AL00005 - 82

Comment: 10. On page IV-183, Section 4.5.4.3, there is no basis for separating construction equipment noise from construction traffic noise. The cumulative impact of both should be assessed relative to the guidelines.

Response: The content of this comment is similar to comment SAIP-AL00005-80; please refer to Response to Comment SAIP-AL00005-80.

SAIP-AL00005 - 83

Comment: 11. On page IV-183, Section 4.5.4.3, the LA CEQA guidelines have two criteria to be assessed, as discussed in Comment #9.

Response: Please see Response to Comment SAIP-AL00005-75 regarding corrections to page IV-173. The corrections to page IV-173 provide a more clear indication that Leq(h) is the metric used to assess construction traffic noise impacts on the designated haul routes, and CNEL is used to assess construction equipment noise from the construction site.

The CNEL metric is adequate to support a determination whether construction equipment noise impacts evaluated in the SAIP Draft EIR surpass both thresholds of significant impact for construction equipment noise. General construction scheduling is made available for the SAIP Draft EIR, but does not provide specific hours and/or days of the week for each activity at each work area throughout the term of the project, noise levels of the specific equipment that will be used, and the expected full-capacity utilization factor for each piece of equipment. (Refer to Section 2.4.5 of the SAIP Draft EIR regarding proposed project phasing and scheduling.) Without this type of data, the fluctuation in noise levels over the term of the project is estimated using the loudest activity noise level (86 dBA Leq) provided by the Draft L.A. CEQA Thresholds Guide along with an estimated percentage of time during each hour that activity will create the loudest level (86 dBA Leq).

To account for the fluctuation in noise levels over a 24-hour period of the project, a time-averaged noise metric is used. The L.A. CEQA Thresholds Guide recommends CNEL to assess the construction equipment noise levels compared to the existing or baseline ambient level, especially for construction activities that are scheduled to occur during nighttime hours. This metric takes into account the reduced ambient noise levels and increased sensitivity to noise during evening and nighttime hours. The L.A. CEQA Thresholds Guide also requires a quantification of ambient noise levels measured in CNEL. With the use of the CNEL metric, the construction equipment noise analysis in the SAIP Draft EIR does account for reduced ambient noise levels at night, and compares the construction equipment noise impacts of the SAIP against an ambient CNEL that also takes into account reduced nighttime levels. Therefore, the SAIP Draft EIR's construction noise impact analysis identifies and discloses whether either threshold of significance will be surpassed.

SAIP-AL00005 - 84

Comment: 12. On page IV-188, mitigation measure MM-N-9 indicates that construction equipment may have to comply with potential criteria set in a LAWA construction noise guideline document. What is this document, and what are the criteria?

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. The Construction Noise Control Plan (CNCP) (known as LAX Master Plan Mitigation Measure MM-N-7) shall describe how the Contractor will manage construction related noise to comply with noise provisions of the City of Los Angeles Municipal Code and the requirements of this Contract. The intent of the CNCP is to control noise impacts to Noise Sensitive Areas as defined in the Contract. The CNCP shall meet all requirements of the US Department of Transportation, FHWA Bulletin- Highway Construction Noise "Measurement, Prediction, and Mitigation" and the City of Los Angeles Draft CEQA Thresholds Guide dated May 14, 1998. Please see Response to Comment SAIP-AL00005-23 regarding further details related to the CNCP.

SAIP-AL00005 - 85

Comment: 13. On page IV-188, mitigation measure MM-N-9 identifies an alternative to traditional back-up alarms. However, there are other alternatives permitted by OSHA that generate no noise (e.g., lights and flag men). These should be included.

Response: As noted in the comment, Mitigation Measure MM-N-9, to replace noisy construction equipment with technically and economically feasible quieter equipment, discusses the potential use of reduced-volume construction equipment back-up alarms. See Section 4.5.5.2 of the SAIP Draft EIR. The commentor suggests that LAWA consider a further technology to reduce or avoid noise caused by construction equipment back-up alarms. As part of the Construction Noise Control Plan submitted and approved by LAWA, the Contractor shall describe how he or she will manage construction related to noise. The intent is to control noise impacts to noise sensitive areas. The CNCP is expected to identify specific measures such as controlling back-up alarm noise if the Contractor determines that this specific source will potentially exceed the average CNEL level that is necessary to avoid significant impact stated in the SAIP Draft EIR. The Contractor, along with LAWA review and approval, will select the most feasible option in mitigating this specific source. The primary criterion is safety. The purpose of back-up alarms is to alert individual both operating other vehicles and working outside of one that the vehicle is in reverse. An individual may not be within sight of the operator, so back-up alarms provide a larger margin of safety on the work site. Depending on the type of work being conducted, lights may not serve as an effective means to alert workers of a vehicle in reverse, especially if the workers are within the same work site. Flags operators are an additional resource requirement and may not have a full view of the work site, and does not necessarily know exactly when the operator may back-up the vehicle. Once again, each construction activity and site presents unique circumstances that the Contractor will review and make specific mitigation decisions based on each unique circumstance. All measures stated in the CNCP will be reviewed and approved by LAWA. Both the Contractor and LAWA will conduct compliance checks during the construction period.

Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. Please see Response to Comment SAIP-AL00005-23 regarding the Construction Noise Control Plan.

SAIP-AL00005 - 86

Comment: 14. On page IV-188, mitigation measure MM-N-10 indicates that limits will be placed on noise emissions from heavy equipment during noise-sensitive hours, defined as 9 pm to 7 am Monday through Friday and 8 pm to 6 am on Saturday; These hours are not consistent with the LA CEQA guidelines. (See Comment #9b.) Also, Table 4.5-24 allows an activity factor of 90% from 6 am to 7 am, a limit of only 10% during this noise-sensitive hour. This is substantially higher than the hourly activity factors of 0% to 75% allowed during the other sensitive hours. Lastly, it is not clear why MM-N-10 considers 6 am to 7 am to be sensitive Monday through Friday but not on Saturday.

Response: The typographical error is noted. In response, page IV-188 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. The change addresses the difference between the definitions of noise-sensitive hours. Mitigation Measure MM-N-10 does consider 6 a.m. to 7 a.m. a construction noise-sensitive hour as stated in the corrections made. The 90% activity factor from 6 a.m. to 7 a.m. is assumed based on the planned start of the first shift as indicated in Table 4.2-11 of the SAIP Draft EIR. The first shift begins at 6 a.m. The second assumption is that the first shift will be conducting a majority of the noisiest construction activities. Based on both of the construction planning assumptions, a conservative activity utilization percentage is applied between 6 a.m. and 7 a.m. Even with this assumption, there is no significant impact expected as discussed in Section 4.5.6.3.3 of the Draft EIR.

SAIP-AL00005 - 87

Comment: 15. On page IV-189, measures ST-16 and ST-22 indicate that truck routes will be on non-residential streets. However, the primary route is along Imperial Highway, which is bordered by numerous residential developments.

Response: Imperial Highway west of I-105 is a four-lane, divided roadway that does not provide direct frontage to the residential areas within the City of El Segundo. Residential access is provided via Imperial Avenue, which runs parallel to Imperial Highway. Imperial Highway and Imperial Avenue are separated by a landscaped median and, for a considerable distance, the two roadways are at different elevations. Truck routes for the SAIP will be provided on Imperial Highway, which is a non-residential street.

The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. Based on the traffic analysis documented in the SAIP Draft EIR, the SAIP is not anticipated to produce significant traffic impacts at intersections analyzed on Imperial Highway in the vicinity of the residential areas along Imperial Avenue (i.e., Imperial Highway intersections at Main Street and at Pershing Drive).

SAIP-AL00005 - 88

Comment: 16. On page IV-225, Section 4.5.6.2, the report concludes that there is no significant impact due to construction traffic because there won't be a 3-fold increase in traffic. This conclusion may be incorrect because the bulk of the increase on Imperial Highway will be heavy trucks, which generate significantly more noise than other vehicle types. There should be an analysis showing the increase in noise level taking into consideration the types of construction vehicles that will be using the roadways. Also, as indicated in Comment #8, the noise generated by the construction traffic should be added to that generated by the construction equipment to identify the overall increase in noise level. Lastly, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.

Response: The methodology used to determine the potential for construction traffic noise impacts is consistent with that used for the LAX Master Plan Final EIR. An increase of 5 dBA Leq(h) in peak hour period for a noise-sensitive receptor is the threshold of significance for the SAIP Draft EIR. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

The change in volume between 2003 Adjusted Baseline and Project (2005) is what is used to determine if a three-fold increase in traffic may occur. The peak hours of analysis are the same for the traffic analysis discussed in Section 4.2.6.3. The hours of analysis include the SAIP Construction Employee A.M. peak (6:00 to 7:00 a.m.), the SAIP Construction Delivery peak (3:00 to 4:00 p.m.), and the SAIP Construction Employee P.M. peak (3:30 to 4:30 p.m.). Results indicate that SAIP construction traffic would not increase volumes more than three-fold.

To the extent that this comment repeats comment SAIP-AL00005-80, please refer to Response to Comment SAIP-AL00005-80 regarding cumulative impact of construction equipment and traffic noise. To the extent that this comment repeats comment SAIP-AL00005-81, please refer to Response to Comment SAIP-AL00005-81 regarding the use of CNEL to assess construction equipment noise impacts during noise-sensitive hours.

SAIP-AL00005 - 89

Comment: 17. On page IV-227, Section 4.5.6.3.1, the report states that the significance criterion is an increase of 5 dBA over ambient CNEL. This is inconsistent with Section 4.5.4.2 which states that the criterion for construction traffic noise is a 5 dBA increase in Leq(h), and Section 4.5.6.2 which assesses traffic noise impacts on the basis of Leq(h). Construction equipment should be considered using the same metric as construction traffic since, as indicated in Comment #8, the noise levels from both activities should be combined to assess impact.

Response: Subsection 4.5.6.3.1 specifically addresses the expected 2005 non-construction equipment ambient levels, which are needed to calculate the expected total ambient noise level (non-construction equipment noise and construction equipment noise), which is compared to the 2003 Baseline total ambient to identify the potential for significant impacts caused by construction equipment noise. In response, this section is hereby revised for clarification purposes. Please see Chapter IV, Corrections and Additions to the Draft EIR.

Subsection 4.5.4.2 of the SAIP Draft EIR specifically addresses the threshold of significance for off-airport construction traffic noise impacts. The threshold is correctly stated. The commentor is also correct regarding the information presented in Section 4.5.6.2, which addresses off-airport construction traffic noise in terms of Leq(h). In response, Section 4.5.4.2 is hereby revised for clarification purposes. Please see Chapter IV, Corrections and Additions to the Draft EIR. Please see Response to Comment SAIP-AL00005-80 regarding cumulative noise impact.

SAIP-AL00005 - 90

Comment: 18. On page IV-227, Section 4.5.6.3.1, the report derives a 2005 non-construction ambient CNEL. This may also be inconsistent with the analysis of Section 4.5.6.2; however, it isn't clear that any baseline ambient level was used in the analysis of construction traffic noise impacts. A consistent baseline should be selected for the noise section of the Draft EIR.

Response: Please see Response to Comment SAIP-AL00005-88 regarding construction traffic noise methodology. Please also see Topical Response TR-SAIP-GEN-1 for a general discussion of environmental baselines.

SAIP-AL00005 - 91

Comment: 19. On page IV-227, Section 4.5.6.3.2, the report states that "it was conservatively assumed for this analysis that noise of 86 dBA can be detected 50 feet from the entire area boundary." What is the basis for assuming that 86 dBA, or any other level, is detectable at that distance?

Response: As discussed in Section 4.5.6.3.2 of the SAIP Draft EIR, the construction activity noise level of 86 dBA at 50 feet is based on typical noise levels as identified in the Draft L.A. CEQA Thresholds Guide, which were derived from U.S. Environmental Protection Agency's (USEPA) Report NTID 300.1 titled Noise from Construction Equipment and Operations, Building Equipment and Home Appliances Agency, December 31, 1971.

SAIP-AL00005 - 92

Comment: 20. On page IV-227, Section 4.5.6.3.2, the analysis uses a noise level of 86 dBA at 50 feet for construction activity based on Exhibit I.1-2 of the LA CEQA guidelines. The exhibit is designed for assessing the construction of structures and facilities, and not the demolition and construction of an airport runway. Since the number, type and schedule for the construction equipment is identified in Appendix K, the actual construction noise levels should be analyzed.

Response: The commentor is incorrect. The Draft L.A. CEQA Thresholds Guide does not specify published construction activity levels for only construction of structures and facilities. The levels in Exhibit I.1-2 provide typical noise levels for each construction phase. The use of excavation and finishing activity levels for the SAIP Draft EIR construction equipment noise analysis is consistent with the LAX Master Plan Final EIR methodology. Because specific noise measurements associated with construction equipment activity on the airport are available, the loudest activity level is assumed to be equivalent to excavation and finishing.

SAIP-AL00005 - 93

Comment: 21. On page IV-227, Section 4.5.6.3.2, the analysis assumes a noise attenuation factor of 4.5 dBA per doubling of distance because of the vegetation between the construction site and noise-sensitive land uses across Imperial Highway. A review of aerial photos indicates that the only vegetation is a small strip between the existing runway and taxiway. There is no justification for using a factor of 4.5 dBA for propagation over the paved airport grounds and Imperial Highway.

Response: The commentor refers to the use of an aerial photo that LAWA is not aware of, and does not state when and where this was taken. This comment is substantially similar to comment SAIP-AL00005-73; please see Response to Comment SAIP-AL00005-73 regarding the SAIP Draft EIR's use of the lateral attenuation factor.

SAIP-AL00005 - 94

Comment: 22. On page IV-228, the analysis uses hourly activity factors to calculate the CNEL of the construction equipment. How were the hourly activity factors derived? What do they mean in practical terms for operations at the project site? Since the analysis uses a noise level obtained

from the LA CEQA guidelines, the analytical procedures identified in those guidelines, which do not use hourly activity factors, should have been used. The report defines an hourly activity factor as the percentage of time that construction activities are emitting average noise levels of 86 dBA. Although not stated, the analysis assumes that construction activity generates no noise (or relatively very little noise) during the rest of the hour. For example, for an hourly activity factor of 50%, the analysis assumes the construction activity generates 86 dBA for 30 minutes and 0 dB (or significantly less than 86 dBA) for 30 minutes. This is not a reasonable scenario for construction activities. The analysis should be redone as indicated in Comment #20.

Response: The SAIP Draft EIR's use of estimated hourly activity levels is a means in which an hourly average noise level (Leq(h)) for each hour of an average construction day is estimated. Based on the Draft L.A. CEQA Thresholds Guide, use of an average noise level to conduct a construction equipment noise analysis is appropriate. It specifies that a noise analysis may use noise levels specified in Table I.1-2 on page I.1-9. A more detailed analysis (calculating individual equipment noise levels) is considered more appropriate if specific detailed information is available. Information includes an hourly construction schedule for each day of the construction period, specific noise emission levels (the Draft L.A. CEQA Threshold Guide provides only a range) for each piece of equipment and a usage factor for each piece of equipment for each activity. A "usage factor" is used to time-average the noise levels associated with an operating piece of equipment. It is expressed as the percentage of time that the equipment is operated at full capacity while on site. Each piece of equipment that makes up an activity does not operate at full capacity 100 percent of the time. If one assumes a noisy activity needs to take place during the night, an appropriate usage factor of the equipment can be determined in order to avoid significant impacts to nearby residents. The usage factor does not necessarily relate to how many minutes per hour an activity will produce loud noise levels. A usage factor can also be dependent upon how the equipment is used (e.g., lower power settings, operate with lighter loads, etc.). This factor is typically estimated by the Contractor, who is most familiar with the equipment, how it will be used for a specific activity and the experience of the operator. These three factors are needed to calculate a usage factor. Guidelines for the selection of usage factors are provided by the USEPA's Report NTID 300.1 titled Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances, December 31, 1971. This level of information is not available for the Draft EIR construction equipment noise analysis. Therefore, the general methodology using the loudest average noise level provided by the Draft L.A. CEQA Thresholds Guide is appropriate.

In order to calculate an average 24-hour CNEL level, each hourly Leq level for hours between 7:00 p.m. and 6:59 a.m. are weighted appropriately for CNEL (4.77 dBA between the hours of 7:00 p.m. and 9:59 p.m. and 10 dBA between the hours of 10:00 p.m. and 6:59 a.m.). All 24-hour Leqs are summed together to come to an average 24-hour construction equipment CNEL level at 50 ft from the activity. Schedule information detailing activity by hour by day for each work area is not available, especially for the noise-sensitive hours. Without knowing what type of activities are to take place during those hours, a specific construction activity noise level from the Draft L.A. CEQA Thresholds Guide could not be selected. Therefore, an estimation process starting with the loudest activity level (86 dBA Leq) is used. Based on the assumptions discussed in more detail below, an "activity level" factor is applied in order to arrive to an estimated hourly Leq. The equation used to make the calculation is widely accepted and documented in the USEPA's Report, NTID 300.1, titled Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances, December 31, 1971. (The equation is explained in terms used for the Draft EIR as follows: Leq at 50 ft = Estimated Noise Emission Level (Leq) at 50ft+10*log(Activity Level%/100)).

The activity level estimates are based on the number of employees assumed for each shift; the number of trucks accessing the construction site for each hour (refer to Table 4.2-11 of the SAIP Draft EIR), and Mitigation Measure MM-N-10 (limiting noisiest activities during the construction noise-sensitive hours). About 68% of the total number of employees (estimated to be 252 as stated in Section 4.2.6.3 of the SAIP Draft EIR) will be working during the first shift (6:00 a.m. to 4:00 p.m.). This was determined based on the number of employee shuttle trips planned for the two shifts (refer to Table 4.2-11 of the SAIP Draft EIR). As discussed in Section 4.5.6.3.1 the majority of work will be conducted during the first shift, and is evident by the number of employees working during the first shift. Therefore, a 100% level of activity noise is assumed. Ninety percent is assumed for the 6:00 a.m. to 7:00 a.m. hour because it is the start of the first shift which will most likely take some time to start in that hour.

As discussed in Section 4.5.6.3.1 of the SAIP Draft EIR, the primary purpose of the second shift would be to conduct construction activities that cannot be accomplished during the daytime shift due to coordination or interference issues (caused by airport operations, safety, delivery of materials, or equipment malfunction/availability). No specifics related to scheduled activities during the second shift is available. The analysis assumes that the type and level of activity that is conducted during the second shift will vary. The analysis assumes that the second shift can continue to conduct the noisiest activities between 4:00 p.m. and 7:00 p.m. (five out of six days) at the full hourly noise level assumed (86 dBA Leq – loudest construction activity level using equipment that emit the least noise possible pursuant to MM-N-9). For the remainder of the shift (between the hours of 7:00 p.m. and 2:00 a.m.), the second shift will begin to reduce the level of noisiest activities based on specific requirements that the Contractor will make in the Construction Noise Control Plan (CNCP) regarding the need to minimize the noisiest activities during the noise-sensitive hours. Specifics about the CNCP is not available until a Contractor is awarded the construction contract. Rather than assuming an immediate reduction, a conservative assumption was made that for an average day, noise levels will gradually reduce from 75% to 50% as the noisiest activities gradually halt. Between 2:00 a.m. and 6:00 a.m., there is no scheduled work at the construction site, because the second shift has ended. The only activity assumed for those hours are trucks delivering material for the first shift activities (refer to Table 4.2-11 of the SAIP Draft EIR), but no activity is assumed at the construction site.

Delivery truck activity between 9:00 p.m. to 5:00 a.m. as reported in Table 4.2-11 of the Draft EIR is assumed to be delivering material necessary for the first shift activities scheduled for the following day. As indicated in Table 4.2-11, construction delivery and haul traffic increases between 5:00 a.m. to 8:00 p.m. The main purpose for this traffic is to support the activities taking place at the site. This supports the assumption that most of the activities taking place during these hours will be at high utilization levels, especially between 6:00 a.m. and 4:00 p.m. (the same time as the first shift). After 4:00 p.m., the number of construction delivery traffic reduces.

Mitigation Measure MM-N-10, which calls for minimizing the noisiest activities during noise-sensitive hours is also taken into account when assumptions are made regarding the level of average hourly noise from the site. Section 4.5.6.3.2 of the SAIP Draft EIR acknowledges that construction activities are planned to occur during the noise-sensitive hours specified by MM-N-10 in Section 4.5.5.2 of the SAIP Draft EIR (please see Response to Comment SAIP-AL00005-86 regarding the correction made to the description of MM-N-10 in Section 4.5.5.2 of the Draft EIR). As part of the CNCP, the Contractor will be responsible to identify specific activities that can take place during the noise-sensitive hours and the limited levels the activities can produce. Specifics related to specific equipment used by the Contractor and the usage factors (percentage of the equipment's full capacity of operation) are not available until a Contractor is selected and a CNCP, reviewed and approved by LAWA, is developed by the Contractor. Without this type of information, assuming a reduction of the loudest activities noise level as a means to assume the implementation of MM-N-10 is reasonable. The commentor states that assuming a 50% activity factor equates to generating an 86 dBA average noise level for 30 minutes in one hour. This is one way to view how the hourly noise level during those hours may be achieved. Another way of viewing the information is that any activities that take place during an hour that assumes an activity level of 50% will not exceed an hourly average Leq of 83 dBA, as shown in the third column of Table 4.5-25. With MM-N-10 in place, the Draft EIR assumes that average hourly noise levels from activities taking place during those hours specified in Table 4.5-25 will not exceed an average hourly level (Leq(h)) of 83 dBA.

Overall, the average 24-hour CNEL level emitted by construction equipment noise at the construction site needs to be maintained at a level that does not increase the existing ambient more than 5 dBA for the closest noise-sensitive sites. According to the ambient levels reported in Section 4.5.6.3 of the Draft EIR, the daily average CNEL should not exceed 91 dBA 50 ft from the site of construction activity. At this level, the projected ambient level for the closest noise-sensitive areas will increase to a level that is 5 dBA CNEL more than the existing 2003 ambient level. The 91 dBA CNEL reference level is applicable to construction taking place in work areas located on the west end of Runway 25L. The reference level for other work areas in the middle and east end of the site may be higher, because nearby noise-sensitive areas are located further away (see Exhibit 4.5-16 of the SAIP Draft EIR).

SAIP-AL00005 - 95

Comment: 23. On page IV-231, Section 4.5.6.3.3, the calculation of CNEL at the residences is incorrect. Using the report's assumptions, the attenuation due to distance is $15 \cdot \log(600/50) = 16$ dB. When added to the CNEL calculated in Table 4.5-25, this yields a CNEL of 73 dB, not 70 dB as indicated in the report. When this is added to the assumed 2005 ambient CNEL of 68 dB, the overall CNEL with construction equipment is 74 dB, an increase of 4 dB over the 2003 ambient of 70 dB.

Response: The calculation error is noted. In response, page IV-231 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. This revision does not change the conclusion discussed in Section 4.5.6.3.4; noise levels caused by SAIP construction activities are not expected to cause a significant impact on noise-sensitive areas and no additional mitigation is required.

Using the 5 dBA CNEL threshold of significance, construction noise that raises the 2003 Baseline ambient noise level to 75.4 dBA (70.4 dBA CNEL + 5 dBA = 75.4 dBA CNEL) or more may be considered significant. In order to raise the total background noise level to 75.4 dBA CNEL during Project (2005) conditions, construction noise would need to be 74.5 dBA CNEL or more at a noise-sensitive site (68 dBA CNEL + 74.5 dBA CNEL = 75.4 dBA CNEL) or 91 dBA CNEL or more at 50 ft from the construction activity. For the closest noise-sensitive site, the estimated total (construction equipment and Project (2005) non-construction ambient) was 74.0 dBA. Compared to 2003 Baseline ambient levels, an increase of 3.6 dBA may be expected during Project (2005) conditions.

The calculation above results in an increase below the 5 dBA threshold of significance. Therefore, noise levels caused by SAIP construction activities are not expected to cause a significant impact on noise-sensitive areas and no additional mitigation is required.

SAIP-AL00005 - 96

Comment: 24. On page IV-231, Section 4.5.6.3.3, the comparison of construction equipment noise to the ambient assumes a noise reduction factor of 4.5 dB per doubling of distance. As indicated in Comment #21, this is not appropriate. Using the more appropriate reduction of 3 dB per doubling of distance, the noise reduction is $10 \cdot \log(600/50) = 11$ dB. When added to the CNEL calculated in Table 4.5-25, this yields a CNEL of 78 dB. When this is added to the assumed 2005 ambient CNEL of 68 dB, the overall CNEL with construction equipment is 78 dB, an increase of 8 dB over the 2003 ambient of 70 dB. This is a significant impact since it exceeds the 5 dB increase threshold.

Response: Please see Response to Comment SAIP-AL00005-73 regarding lateral attenuation. The increase in CNEL levels from construction equipment disclosed in Section 4.5.6.3 of the SAIP Draft EIR is based on the 4.5 attenuation factor. As discussed in Section 4.5.6.3 of the SAIP Draft EIR, the levels are not considered significant.

SAIP-AL00005 - 97

Comment: 25. On page IV-231, Section 4.5.6.3.3, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines, as indicated in Comment #9.

Response: "Comment #9" as referenced in this comment corresponds to comment SAIP-AL00005-81. Please see Response to Comment SAIP-AL00005-81 regarding the use of CNEL to calculate construction noise impacts during noise sensitive hours.

SAIP-AL00005 - 98

Comment: 26. On page IV-231, Section 4.5.6.3.4, the analysis conflicts with the analysis of Section 4.5.6.3.3. In Section 4.5.6.3.4, the threshold of significance is assumed to be 5 dB above the 2005 non-construction ambient, while in Section 4.5.6.3.3, the threshold of significance is assumed to be 5 dB above the 2003 Baseline ambient. The report needs to take a consistent approach. Based on Section 4.5.1, that approach is to compare the 2005 project levels with the 2003 Baseline ambient. On this basis, the analysis of Section 4.5.6.3.4 is incorrect.

Response: Page IV-231 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. The commentor is correct in stating that the approach is to compare the 2005 (Project) total ambient levels with the 2003 Baseline total ambient levels. Section 4.5.6.3.4 is revised to be consistent with the analysis discussed in Section 4.5.6.3. The changes to the SAIP Draft EIR do not change the conclusions stated therein.

Using the 5 dBA CNEL threshold of significance, construction noise that raises the 2003 Baseline ambient noise level to 75.4 dBA (70.4 dBA CNEL + 5 dBA = 75.4 dBA CNEL) or more may be considered significant. In order to raise the total background noise level to 75.4 dBA CNEL during Project (2005) conditions, construction noise would need to be 74.5 dBA CNEL or more at a noise-sensitive site (68 dBA CNEL + 74.5 dBA CNEL = 75.4 dBA CNEL) or 91 dBA CNEL or more at 50 ft from the construction activity. For the closest noise-sensitive site, the estimated total (construction equipment and Project (2005) non-construction ambient) was 74.0 dBA. Compared to 2003 Baseline ambient levels, an increase of 3.6 dBA may be expected during Project (2005) conditions.

The calculation above results in an increase below the 5 dBA threshold of significance (compared between Project (2005) and the 2003 Baseline). Therefore, noise levels caused by SAIP construction activities are not expected to cause a significant impact on noise-sensitive areas and no additional mitigation is required.

SAIP-AL00005 - 99

Comment: 27. On page IV-231, Section 4.5.6.3.4, the determination as to whether construction noise exceeds the threshold of significance should be based on the composite construction noise level obtained by adding construction traffic noise to construction equipment noise. Also, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.

Response: This comment substantially repeats comments made in comment SAIP-AL00005-80 and comment SAIP-AL00005-81. Please see Response to Comment SAIP-AL00005-80 regarding the Draft EIR's analysis of the cumulative impacts of construction equipment noise and construction traffic noise and Response to Comment SAIP-AL00005-81 regarding the SAIP Draft EIR's use of CNEL to calculate construction noise impacts during noise-sensitive hours.

SAIP-AL00005 - 100

Comment: 28. On page IV-233, Section 4.5.7, there is no basis, using the LA CEQA guidelines, for separating construction traffic noise from construction equipment noise. The cumulative impact of both should be assessed relative to the guidelines.

Response: This comment is substantially similar to comment SAIP-AL00005-80; please see Response to Comment SAIP-AL00005-80 regarding the Draft EIR's analysis of the cumulative impacts of construction equipment noise and construction traffic noise.

SAIP-AL00005 - 101

Comment: 29. On page IV-234, Section 4.5.7.1, the assertion that traffic volumes would have to increase 3-fold to reach the CEQA threshold of significance is not necessarily correct, as discussed in Comment #16. Also, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.

Response: This comment is substantially similar to two of the commentor's previous comments. "Comment #9" refers to comment SAIP-AL00005-81; please see Response to Comment SAIP-AL00005-81 regarding the SAIP Draft EIR's use of CNEL to calculate construction noise impacts during noise-sensitive hours. "Comment #16" refers to comment SAIP-AL00005-88; please see Response to Comment SAIP-AL00005-88 regarding the SAIP Draft EIR's methodology to analyze noise impacts from construction traffic.

SAIP-AL00006 Perlmutter, Robert S. Shute, Mihaly & Weinberger LLP 9/29/2005

SAIP-AL00006 - 1

Comment: This letter supplements our September 14, 2005 comments on the Draft Environmental Impact Report for the proposed South Airfield Improvement Project ("DEIR"), submitted on behalf of the City of El Segundo. As noted in those comments and in our September 9, 2005 letter requesting an extension to the DEIR comment period, LAWA's lengthy delay in providing essential documents has precluded us from making meaningful comments on the DEIR's air quality analysis until now. Our air quality comments are provided in the report by Petra Pless, D. Env., attached to this letter as Exhibit 1; Dr. Pless's extensive credentials are provided in the curriculum vitae attached as Exhibit 2. We look forward to LAWA's responses to these comments.

Response: Please see Response to Comment SAIP-AL00002-1.

SAIP-AL00006 - 2

Comment: We have also attached as Exhibit 3 a recent article from the New York Times noting in the wake of Hurricane Katrina that storm-frequency models may be growing outdated as the climate changes. This recognition that, in the words of one oil industry expert, "[w]e're seeing more 100-year events happening more often, even every few years," strongly suggests that storm models must be revised, as we pointed out in section V.C.3 of our September 14, 2005 comments.

Response: Existing drainage models used by Los Angeles County and the City of Los Angeles for capacity analysis and facility planning and design are based on long-term variables and incorporate conservative assumptions. Such analyses are considered adequate and appropriate for conducting drainage studies, such as the one conducted for the SAIP Draft EIR. The article cited by the commentor addresses hurricane frequency in the Gulf of Mexico and, specifically, whether design standards for oil production facilities should be modified to address the increasing frequency of hurricanes in that region in recent years. The article states that hurricanes alternate between quieter periods and more active periods and that "there is little consensus whether this means that hurricanes are becoming fiercer or whether global warming has had an effect." The issue of hurricane frequency and intensity in the Gulf of Mexico is not applicable to storm frequencies in the Los Angeles area. Moreover, no oil production facilities or off shore facilities are proposed in conjunction with the SAIP.

SAIP-AL00006 - 3

Comment: We reiterate our position that the SAIP DEIR does not comply with the California Environmental Quality Act ("CEQA") for all of the reasons set forth here, in the attached report, and in our previous comments. Unless the DEIR is extensively revised and recirculated, any approvals made on the basis of its environmental analysis will be unlawful.

Response: Please see Responses to Comments SAIP-AL00006-1 and SAIP-AL00006-2 above and SAIP-AL00006-4 through SAIP-AL00006-28 below. Responses to the commentor's previous comments on the SAIP Draft EIR are provided in responses to comment letters SAIP-AL00002 and SAIP-AL00005.

The SAIP Draft EIR complies with the requirements of CEQA. Recirculation of the SAIP Draft EIR is not required because neither the comments on the SAIP Draft EIR, nor the responses thereto, present any substantial evidence of any new or substantially more severe potentially significant environmental impacts, any changes in circumstances that would lead to new or substantially more severe potentially significant environmental impacts or any of the other conditions that require recirculation of the SAIP Draft EIR.

SAIP-AL00006 - 4

Comment: COMMENTS

Los Angeles World Airports ("LAWA"), as the lead agency under the California Environmental Quality Act ("CEQA"), has prepared a project-level draft environmental impact report ("Draft EIR") for the South Airfield Improvement Project ("SAIP" or "Project")¹ at Los Angeles International Airport ("LAX"). This Draft EIR is tiered from, and incorporates by reference, the LAX Master Plan Final EIR2, which analyzed on a program level the impacts resulting from the proposed extensive modernization of LAX. The SAIP is the first LAX Master Plan project proposed for implementation. The SAIP Draft EIR provides project-specific information on the construction of the SAIP, focusing on potentially significant environmental effects at the project level of detail that may not have been specifically addressed in the prior LAX Master Plan EIR. The SAIP Draft EIR also identifies elements of the LAX Master Plan Mitigation Monitoring and Reporting Program³ ("MMRP") applicable to construction of the SAIP. (SAIP Draft EIR, pp. I-3/4.)

Specifically, the SAIP would provide a new parallel taxiway between the two south airfield runways. To accommodate the new center taxiway, the existing southern-most runway, Runway 7R-25L, would be relocated approximately 55 feet south of its current centerline location. The relocation of Runway 7R-25L would include the relocation and replacement of all navigational and visual aids and other associated site work such as utilities, lighting, signage, grading, and drainage. (SAIP Draft EIR, p. II-1.) In addition, airfield improvements would include construction of a new 11,906-foot long by 100-foot wide, full length parallel taxiway between Runways 7L-25R and 7R-25L. (SAIP Draft EIR, p. II-3.)

My colleague Dr. Phyllis Fox and I previously commented on the inadequate environmental review for the LAX Master Plan as presented in the Draft EIR, its Supplement, and the Final EIR and the failure of these documents to meet the requirements of CEQA. We identified and discussed a large number of issues with respect to impacts on air quality and public health and identified additional feasible mitigation to reduce the enormous adverse impacts that would result from implementation of the LAX Master Plan. (Fox 2001 4; Fox & Pless 2003 5; Fox & Pless 2004 6.)

On the surface, the SAIP Draft EIR appears to have resolved several key issues, which LAWA in the past had repeatedly refused to address and did not resolve in the environmental review process for the LAX Master Plan. For example, the SAIP Draft EIR now contains an analysis of PM_{2.5} impacts, which LAWA had steadfastly refused to include in the LAX Master Plan Final EIR. (See Fox 2001, Comment III.D; Fox & Pless 2003, Comment II.A; Fox & Pless 2004, Comment III.) Another example is the addition of several emission sources to the SAIP Draft EIR emissions inventory that were not included in the LAX Master Plan emissions inventory, e.g., fugitive dust emissions from wind erosion of graded areas and volatile emissions from asphalt paving and striping and architectural coatings. (See Fox & Pless 2004, Comments V.D and V.E.) Yet another example is the lowering of the total incremental chronic hazard index significance threshold from five in the LAX Master Plan Final EIR to one in the SAIP Draft EIR. (See Fox 2001, Comment V.A; Fox & Pless 2003, Comment VII.B.1.)

Nonetheless, as demonstrated in the comments below, the SAIP Draft EIR suffers from a number of serious problems, most of which are inherent in its exclusive reliance on the mitigation identified in the LAX Master Plan MMRP. Many of our comments on the various LAX Master Plan CEQA review documents remain equally applicable to the SAIP Draft EIR and are herewith incorporated by reference. The comments below provide an analysis of the SAIP Draft EIR's failure to meet the requirements of CEQA and demonstrate that the SAIP Draft EIR carries forth the inadequacy of the environmental review process for the LAX Master Plan. Specifically, the SAIP Draft EIR fails to adequately mitigate its significant unavoidable impacts because it improperly relies on a mitigation program designed to mitigate considerably lower emissions than identified in the SAIP Draft EIR. And finally, the SAIP Draft EIR is incomplete and inconsistent.

¹ City of Los Angeles, South Airfield Improvement Project, Los Angeles International Airport (LAX), Proposed LAX Master Plan Project, Project-Level Tiered Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2004061009, Los Angeles City File No. AD 017-04, August 2005.

² City of Los Angeles, Los Angeles International Airport, Proposed Master Plan Improvements, Final Environmental Impact Report, (Final EIR), State Clearinghouse No. 1997061047, April 2004.

3 Los Angeles World Airports, LAX Master Plan, Taking Flight for a Better Future, Alternative D, Mitigation Monitoring and Reporting Program, revised September 2004.

4 J. Phyllis Fox, Ph.D., Comments on Air Quality and Human Health and Safety, LAX Master Plan Draft EIS/EIR, July 13, 2001; Attachment C to September 18, 2001 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

5 J. Phyllis Fox, Ph.D., and Petra Pless, D.Env., Comments on Air Quality and Human Health and Safety, LAX Master Plan Supplement to the Draft Environmental Impact Statement/Environmental Impact Report, November 2003; Attachment 3 to November 4, 2003 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

6 J. Phyllis Fox, Ph.D., and Petra Pless, D.Env., Comments on Air Quality and Public Health, Los Angeles International Airport, Proposed Master Plan Improvements, Final Environmental Impact Report, November 29, 2004; Exhibit A to December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

Response: This comment recites portions of the project description for the SAIP. To the extent that recitation is accurate, it is noted. This comment also states that the SAIP Draft EIR has improved upon the analysis contained in the LAX Master Plan EIR and provides specific examples of where that has occurred. LAWA appreciates that recognition, although it disagrees with any statement or implication that the LAX Master Plan EIR is not legally adequate. This comment also asserts very generally that the SAIP Draft EIR does not comply with CEQA. To the extent this comment is general in nature, no specific response is possible. Please refer to Responses to Comments SAIP-AL00006-5 through SAIP-AL00006-28 for specific responses regarding the SAIP air quality analysis.

SAIP-AL00006 - 5

Comment: I. SAIP EMISSIONS ARE NOT ADEQUATELY MITIGATED

The SAIP Draft EIR identifies considerably higher emissions attributable to Project construction and operation than those identified for this project component in the LAX Master Plan and mitigated by the MMRP. As discussed below, the MMRP only commits to mitigate construction and operational emissions to levels previously identified in the LAX Master Plan Final EIR. (SAIP Draft EIR, pp. IV-113 and 121.) The SAIP Draft EIR does not require any additional project-specific mitigation measures beyond those required by the MMRP. (SAIP Draft EIR, p. IV-121.) Hence, the emissions increases identified in the SAIP Draft EIR are not accounted for in the MMRP and remain largely unmitigated.

The comments below briefly summarize the considerable emissions increases identified in the SAIP Draft EIR and discuss the inadequacy of the MMRP to mitigate the additional emissions from the Project.

Response: The commentor's assertion that SAIP emissions are not adequately mitigated based on Comments SAIP-AL00006-6 through SAIP-AL00006-8 is incorrect. Please refer to Responses to Comments SAIP-AL00006-6 through SAIP-AL00006-8 for specific responses regarding SAIP emissions and the adequacy of mitigation measures for potential air quality impacts of the SAIP.

SAIP-AL00006 - 6

Comment: I.A SAIP Emissions Are Considerably Higher Than Accounted For In LAX Master Plan

The SAIP Draft EIR construction emissions inventory includes a number of emission sources that were not accounted for in the LAX Master Plan emissions inventory, thereby considerably increasing the emissions attributable to the Project. Additional emissions estimated for the emissions inventory include fugitive dust PM10 emissions from concrete batching and rock crushing and evaporative VOC7 emissions from hot-mix asphalt paving, runway/taxiway striping, and construction painting (valve piping, appurtenances, and connection paint). (Ricondo 08/05 8,

spreadsheets "Concrete Batching," "Rock Crushing," and "Asphalt Painting;" SAIP Draft EIR, p. IV-85.) In addition, peak emissions from wind erosion increased from 0.26 lb/day to 2.55 lb/day (i.e. by a factor of almost ten) due to the fact that the SAIP Draft EIR emissions inventory assumed a considerably larger acreage for stockpiles. (Ricondo 08/05, spreadsheet "Wind Erosion".) Yet the SAIP Draft EIR fails to include additional mitigation measures to reduce these additional emissions, instead relying on the mitigation measures identified in the MMRP.

7 The term VOC is used synonymously with the terms ROG and THC.

8 Excel Workbook "Construction Emissions final (PM2.5).xls on CD-ROM, LAX SAIP DEIR, Records Request, Ricondo Files, August 22, 2005.

Response: The air quality analyses in the SAIP Draft EIR examine, at a greater level of detail, potential air quality impacts specifically associated with the SAIP. The air quality analyses in the SAIP Draft EIR "tier" from the analyses and findings in the LAX Master Plan Final EIR. The analyses have been further refined to incorporate detailed project-related assumptions regarding construction equipment that will be utilized and airport activity levels during the construction of the SAIP. Therefore, while additional emission sources (e.g. concrete batching, rock crushing and evaporative VOC emissions from hot-mix asphalt paving, runway/taxiway striping, and construction painting) have been identified that are specific to the SAIP, overall construction emissions are estimated to be lower. This is primarily a result of refining assumptions based on the level of SAIP construction information available now compared to information available when the LAX Master Plan EIR was prepared. Specifically, construction emissions decreased as follows: CO from 556 tpy to 110 tpy; VOC from 86 tpy to 57 tpy; NOx from 1,141 tpy to 182 tpy; PM10 from 335 tpy to 29 tpy. The inventory of SOx emissions is essentially unchanged in the SAIP Draft EIR analysis.

The comprehensive MMRP prepared as part of the LAX Master Plan approval, includes mitigation measures that are applicable to the SAIP. Construction-related mitigation measures that are considered feasible and applicable to the SAIP are discussed in Section 4.3.5 of the SAIP Draft EIR. No feasible mitigation measures beyond those identified in the MMRP were identified that would further reduce potential construction emissions related to the SAIP. LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan MMRP. The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR for the LAX Master Plan are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. Although the MPAQ will be completed prior to commencement of construction on the SAIP, because the SAIP Draft EIR preceded the final MPAQ, the MPAQ will incorporate the air quality mitigation measures applicable to the SAIP. It also acknowledges the analysis and conclusion of the SAIP Draft EIR that no measures other than those identified in the LAX Master Plan Final EIR are applicable or effective to reduce or avoid potentially significant air quality impacts of the SAIP. In any case, the SAIP Draft EIR concludes that because these measures cannot be quantified in some cases, the potential impacts remain significant and unavoidable.

SAIP-AL00006 - 7

Comment: For operational emissions, the SAIP Draft EIR admits that "the incremental change over the baseline condition used for the SAIP analysis is much greater than the change analyzed in the LAX Master Plan Final EIR." This results in considerably larger emissions than accounted for and mitigated in the LAX Master Plan and, consequently, "SAIP human health impacts are greater than previously reported for the LAX Master Plan." (SAIP Draft EIR, p. I-11.)

Several factors contribute to this increase in incremental emissions presented in the SAIP Draft EIR. Most importantly, the total number of aircraft operations in the baseline year assumed for SAIP Draft EIR, 2003, is considerably lower than previously assumed for the LAX Master Plan. This results in substantially increased incremental aircraft operations with implementation of the SAIP compared to the baseline and, consequently, substantially increased emissions and human health impacts attributable to the Project. Specifically, the Draft SAIP EIR states that "[t]he projected number of operations in 2005 with implementation of the SAIP is nearly 20 percent higher than the 2003 Baseline" and "roughly an order of magnitude greater than the incremental

operations assumed in the Master Plan." (SAIP Draft EIR, pp. I-11 and L-1.) Second, a slightly different fleet mix contributed to an increase in Project emissions. Third, additional aircraft taxi and queue time due to the shift in aircraft operations from Runway 7R-25L to other runways contributed to an increase in emission. And finally, the use of a constant mixing height of 2,050 feet instead of the 1,800 feet used in the LAX Master Plan EIR resulted in an increase of climbout time for departing aircraft and, consequently, an increase in associated pollutant emissions. (SAIP Draft EIR, p. IV-116.)

Response: Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR.

While aircraft emissions did increase as a result of the factors identified in this comment, it is important to note that none of the factors, with the exception of the shift in runway use and corresponding slight increase in aircraft taxi and queue time, are a result of implementation of the SAIP. The use of the updated aircraft traffic data provides a more accurate and up-to-date description of the environmental baseline for evaluation of the SAIP's air quality impacts than using the baseline data in the LAX Master Plan Final EIR.

Implementation of the SAIP would result in a reduced number of aircraft operations and a slight change in the aircraft fleet mix in the peak construction year due to the closure of Runway 7R-25L. In addition, the taxi and queue times (primarily for Runway 7L-25R) would increase due to the runway closure. As a result of the increase in taxi and queue times, there may be a slight increase in overall operational emissions during the construction of the SAIP. This is evaluated in the SAIP Draft EIR in Section 4.3.6.

Once construction of the SAIP has been completed and Runway 7R-25L is re-opened, average aircraft taxi and idle times are expected to be similar to or slightly lower than those experienced today. The opening of the center taxiway is not anticipated to significantly affect average aircraft taxi and idle times nor is it expected to affect overall airport capacity. Accordingly, the SAIP will not materially increase emissions in the long-term due to planes holding on the new taxiway. Please see Response to Comment SAIP-PC00006-68 regarding changes in aircraft brake and tire wear emissions.

Please refer to Response to Comment SAIP-AL00006-6 for a detailed discussion regarding implementation of mitigation measures.

SAIP-AL00006 - 8

Comment: I.B SAIP Construction VOC Emissions Are Underestimated

The SAIP construction emissions inventory assumes emissions reductions of 14% NO_x and 63% PM₁₀ attributable to the use of PuriNO_x alternative diesel fuel for diesel-fueled construction equipment and generators. (Ricondo 08/05, spreadsheet "Mitigation".) The emissions inventory does not address the fact that the use of PuriNO_x fuel considerably increases VOC emissions and fails to adjust VOC emissions accordingly. A recent study found that the use of PuriNO_x instead of CARB-certified diesel in heavy-duty diesel engines will increase VOC emissions on average by 87%. (CalEPA 03/04 9, p. 4; relevant excerpts are attached as Exhibit A.) The U.S. EPA indicates that the use of PuriNO_x in off-road diesel engines results in an increase of VOC emissions of 72.8% to 99.4% for engines up to 300 hp and 30% for engines >300 hp compared to CARB diesel fuel. (U.S. EPA 09/05 10; attached as Exhibit B.) As a consequence, VOC emissions from diesel-fueled construction equipment and generators are underestimated.

9 California Air Resources Board, Assessment of Emissions of Lubrizol's PuriNO_x Water/Diesel Emulsion on Exhaust Emissions from Heavy-Duty Diesel Engines, March 2004; Attachment B to State of California, California Environmental Protection Agency, Multi-Media Assessment of Lubrizol's PuriNO_x Water/Diesel Emulsion, March 2004; available at <http://www.arb.ca.gov/fuels/multi/altdslatlb.pdf>, accessed September 29, 2005.

10 U.S. Environmental Protection Agency, Retrofit Technologies from Lubrizol Corporation, August 5, 2004; available at <http://www.epa.gov/otag/retrofit/techlist-lubrizol.htm>, accessed September 29, 2005.

Response: The commentor accurately states that the emission inventory prepared for the SAIP Draft EIR assumes that use of PuriNOx (Lubrizol) emulsified diesel fuel could result in emission reductions of 14% NOx and 63% PM10 for heavy-duty diesel vehicles and generators. While the emission inventory spreadsheets do not explicitly address increases in VOC emissions associated with use of Lubrizol, the March 2004 study conducted by the California Air Resources Board was reviewed and considered during the preparation of the emission estimates as well as other information regarding U.S. EPA and CARB-certified diesel retrofit technologies. For the purposes of the construction emissions inventory, it was assumed that any increases in VOC emissions associated with the use of Lubrizol would be offset by reductions in VOC emissions associated with the use of diesel particulate traps/filters, another clean diesel technology that has been proposed for heavy-duty construction equipment and generators. As presented on the U.S. EPA's Verified Technology list (www.epa.gov/otaq/retrofit/retroverifiedlist.htm) several particulate traps/filters that have been certified by the U.S. EPA and CARB significantly reduce VOC emissions. The emission reductions associated with the use of particulate traps/filters are in the same range as the emission increases associated with the use of Lubrizol; therefore, it was assumed that the net effect on VOC emissions from vehicles using both technologies would be negligible. Please see Section 4.3 (subsection 4.3.5) for a list of construction-related mitigation measures that are included in the MMRP and that would be applied to the SAIP.

SAIP-AL00006 - 9

Comment: I.C SAIP Operational Emissions Are Underestimated

We previously commented on the fact that the LAX Master Plan considerably underestimated emissions associated with the operation of LAX. The SAIP Draft EIR perpetuates a number of these issues and our comments remain applicable. Rather than reiterating our previous comments in their entirety, they are hereby incorporated by reference and summarized below. The SAIP Draft EIR suffers from the same shortcomings.

Response: The commentor's assertion that emissions associated with the operation of LAX are considerably underestimated in the SAIP Draft EIR based on Comments SAIP-AL00006-10 through SAIP-AL00006-14 is incorrect. Please refer to Responses to Comments SAIP-AL00006-10 through SAIP-AL00006-14 for specific responses regarding the adequacy of the operational emissions analysis contained in the SAIP Draft EIR.

SAIP-AL00006 - 10

Comment: I.C.1 Airport Capacity Is Underestimated

The emissions estimates presented by the SAIP Draft EIR and the LAX Master Plan EIR relied on a considerably underestimated airport capacity, as determined by an independent evaluation of the capacity of Alternative D by an expert in airport design and capacity. (Fox & Pless 2004, Comment V.A; Kanafani 2003 11 and 2004 12.)

11 A. Kanafani, Capacity Analysis of Aircraft Gate Positions, Los Angeles International Airport, Master Plan Alternative D; submitted as Attachment 7 to November 3, 2003 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger.

12 A. Kanafani, Comments on the LAX Master Plan Final EIS/EIR Response to Comments; submitted as Exhibit A to December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger.

Response: The commentor questions the legitimacy of the emissions estimates used in this SAIP Draft EIR by referring to prior comments on the LAX Master Plan Final EIR which claim that the potential capacity of the airport following implementation of Alternative D was understated. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. As demonstrated, the SAIP does not add capacity to the airport.

In response to the comments directly related to the LAX Master Plan Final EIR, including all comments submitted by the commentor regarding the LAX Master Plan Final EIR on behalf of the City of El Segundo, these comments are not on the SAIP Draft EIR and no further response is required. Nonetheless, because the SAIP Draft EIR is tiered from the LAX Master Plan Final EIR, that EIR, including responses to the comments incorporated here, is incorporated by reference as if fully set forth herein. Responses to the commentor's previous comments on the LAX Master Plan EIS/EIR are provided in responses to comment letters AL00033 and SAL00015 included in Part II of the LAX Master Plan Final EIR, and FAL00003 included in FAA's Record of Decision on the LAX Master Plan.

SAIP-AL00006 - 11

Comment: I.C.2 Rollback Procedure Is Not Warranted

It is standard practice to use the maximum measured existing ambient concentration at the nearest monitoring station as the background in these calculations. The SAIP Draft EIR, as did the LAX Master Plan Final EIR, deviated substantially from the accepted approach and estimated future background concentrations using a linear rollback approach used in the 1997 AQMP to determine if the proposed region-wide controls would bring the basin into compliance with standards. (SAIP Draft EIR, p. IV-100; LAX Master Plan Final EIR, p. 4-665.) This approach assumes that changes in emissions will affect ambient air concentrations proportionally. The use of this approach resulted in very substantial reductions in future background concentrations, a factor of more than two for CO and nearly two for NOx.

We previously commented on the inappropriate use of the linear rollback approach to estimate background concentrations. (Fox 2001, Comment III.A; Fox & Pless 2004, Comment IV.D.) We herewith incorporate these comments by reference.

Response: As explained in Response to Comment FAL00001-29 in the LAX Master Plan Final EIS, the methods for estimating future background ambient concentrations were developed in coordination with SCAQMD, the local agency with expertise in air quality analysis. Preparation of the Air Quality Modeling Protocol for Criteria Pollutants (Attachment A of Technical Report 4 of the LAX Master Plan Final EIS) included three meetings with the SCAQMD staff in which the District's comments on the protocol were solicited and incorporated into the protocol. The method and data used to estimate the future background concentrations were specifically addressed in these discussions, and SCAQMD concurred with the final approach. Thus, after consulting with State representatives with particular knowledge of conditions in the vicinity of LAX, the linear rollback method was selected for the gaseous pollutants, as described in the protocol. The linear rollback method applied in the protocol has been used by the SCAQMD in both the 1997 Air Quality Management Plan (AQMP), which includes the South Coast Air Basin emission budgets of the currently approved State Implementation Plan (SIP), and the 2003 AQMP. These same methods were used in the air quality analysis conducted for the SAIP Draft EIR.

The commentor's assertion that "it is standard practice to use the maximum measured existing ambient concentration at the nearest monitoring station as the background in these calculations" is not supported by any citation to any authority or guidance.

The commentor states incorrectly that use of the linear background method in the SAIP Draft EIR air quality analysis results in "very substantial reductions in future background concentrations, a factor of two for CO and nearly two for NOx." A comparison of historical ambient air quality data collected at the Southwest Coastal Los Angeles Monitoring Station in 2003 (presented in Table 4.3-5 of the SAIP Draft EIR) and future (2005) background concentration data presented in Table 4.3-3 reveals that differences in CO and NO2 concentrations in the two tables are minimal. While the concentrations recorded in 2003 at the Southwest Coastal Los Angeles Monitoring station are higher than the future background concentrations calculated using the linear rollback method, the differences are not material and would not alter the significance conclusions discussed in Section 4.3.9 of the SAIP Draft EIR. In other words, if ambient air quality data from the Southwest Coastal Los Angeles Monitoring station had been used to represent background concentrations of CO and NO2 in the Project (2005) analysis, the findings would be the same – concentrations of CO and NO2 would be less than significant and below the National and California ambient air quality standards (AAQS).

SAIP-AL00006 - 12

Comment: I.C.3 Reverse Thrust Emissions Are Inappropriately Excluded

The SAIP Draft EIR estimates emission rates for four aircraft operational modes: taxi/idle, takeoff, climbout, and approach. (SAIP Draft EIR, p. IV-92 and Appx. K, p. K-12.) The SAIP Draft EIR omits emissions associated with aircraft reverse thrust operations from its air quality analysis and has, therefore, underestimated operational emissions.

Engine thrust reversal is typically used after aircraft landing to slow the aircraft to taxi speed and occasionally to "power-back" away from a boarding bridge (a practice not employed at LAX because of the lack of space between terminal buildings.) Reverse thrust describes the practice of setting the engines to full power in the reverse direction and is essentially a high-thrust operating mode. High-thrust operating modes, such as aircraft takeoff, generate very high NO_x emissions per unit time relative to other operating modes such as aircraft taxi. While the time in mode ("TIM") for reverse thrust operations is, in fact short, approximately 15 to 20 seconds, it can nevertheless be responsible for an additional 15 percent or more of the on-airport NO_x emissions. (Rice & Walton 2003. 13)

The LAX Master Plan Final EIR claimed that "since runway lengths at LAX are able to accommodate even the largest aircraft, use of reverse thrust would be expected to be minimal." (LAX Master Plan Final EIR, RTC AF00001-21.) LAWA ignores that reverse thrust is not only employed by large aircraft to land on short runways but also to reduce brake wear and more often during wet runway conditions. In May 2004, LAWA itself explained 6 out of 84, or 7 percent, of incidents of community noise complaints with the use of reverse thrust. 14 This suggests that reverse thrust use at LAX is not minimal.

Perplexingly, LAWA does not follow FAA's official guidance on this matter. The FAA recognizes the importance of including reverse thrust operations in air quality assessments in its Air Quality Handbook,¹⁵ which provides guidance, procedures and methodologies for use in carrying out air quality assessments for proposed Federal actions that are required for compliance with the National Environmental Policy Act ("NEPA"), the federal Clean Air Act ("CAA") and other environment-related regulations and directives.

The FAA's Air Quality Handbook unambiguously states that "[r]everse thrust is now considered by EPA as an official mode and should be included in calculation procedures..." [Emphasis added.] It continues "[s]ince reverse thrust engine operating conditions are similar to takeoff, time spent in reverse thrust should be combined with takeoff mode emission indices and fuel flow as a means of accounting for reverse thrust mode emissions. Aircraft reverse thrust typically is applied for 15-20 seconds¹⁶ on landing." It explicitly specifies that "[t]akeoff emission indices and fuel flow should be used as inputs for calculating emissions from reverse thrust (as well as takeoff) mode." (Air Quality Handbook, Appendix D17, pp. D-5/6.) Further, reverse thrust operations were recently included in the EDMS modeling for two other airports in the South Coast Air Basin – John Wayne and El Toro – by adding 15 seconds to the total takeoff time. (MCAS El Toro Final EIR, 18 p. 4.5-26.)

Of the four phases of the aircraft landing/takeoff operations ("LTO") cycle typically included in aircraft emissions modeling, the greatest NO_x emissions are attributable to the takeoff mode. Thus, increasing the amount of time in takeoff mode will considerably increase NO_x emissions. (NESCAUM19, p. II-13.) Review of the LAX Master Plan Final EIR's aircraft emissions confirms that more than 50 percent of NO_x emissions from turbofan engines, which are by far the most-used type of engine for aviation use, are due to takeoff. (LAX Master Plan Final EIR, Appx. F-B, Attachment 4.) Aircraft NO_x emissions are directly proportional to the TIM for each LTO. Consequently, any increase in the takeoff TIM results in an increase NO_x emissions attributable to takeoff and reverse thrust. Depending on the actual average TIM for reverse thrust at LAX, resulting NO_x emissions could be considerable, on the order of thousands of tons per year.

Since the SAIP Draft EIR, like the LAX Master Plan before, does not propose any measures restricting reverse thrust operations at LAX, there is no supportable rationale for excluding reverse thrust emissions from the analysis.

13 Colin Rice and C. Michael Walton, Restricting the Use of Reverse Thrust as an Emissions Reduction Strategy, Research Report SWUTC/03/167231-1, Southwest Regional University, Center for Transportation Research, University of Texas, Austin, TX, revised July 2003.

14 Los Angeles World Airports, LAX, Aircraft Noise Community Response Report, May 2004.

15 Federal Aviation Administration, Air Quality Procedures for Civilian Airports and Air Force Bases, April 1997.

16 A recent study on reverse thrust usage at Bergstrom International Airport in Austin, Texas, demonstrated an average TIM for reverse thrust during landing of 16.0 seconds. (Rice & Walton 2003.)

17 Federal Aviation Administration, Air Quality Procedures for Civilian Airports and Air Force Bases, Appendix D, Aircraft Emission Methodology, April 1997.

18 County of Orange, Final Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport, SCH No. 98101053, August 2001.

19 Northeast States for Coordinated Air Use Management ("NESCAUM") and Center for Clean Air Policy, Controlling Airport-related Air Pollution, June 2003.

Response: The content of this comment is similar to the content of comment SAIP-AL00004-7; please see Response to Comment SAIP-AL00004-7.

Regarding the reference to the FAA's Air Quality Handbook, the author of the comment has abbreviated the statement made in Appendix D which reads "Reverse thrust is now considered as an official model and should be included in the calculation procedures as a sixth operating mode when applicable." Based on the professional judgment of LAWA staff and consultants, it was determined that calculation of reverse thrust as a sixth operating mode was not warranted or applicable to the air quality analysis conducted for the SAIP Draft EIR since the implementation of the project would have no effect on the use of reverse thrust by airlines operating at LAX. As discussed in Response to Comment SAIP-AL00004-7, assuming that all aircraft depart LAX at the maximum recorded takeoff weight, as was done for the SAIP Draft EIR, accounts for emissions approximately equal to those from reverse thrust, and does so in a manner consistent with the general approach suggested by the commentor.

SAIP-AL00006 - 13

Comment: I.C.4 Secondary Emissions From Electricity Generation Are Not Included

The SAIP Draft EIR, like the LAX Master Plan EIR before, failed to include secondary emissions from electricity generation in its emission estimates and ambient air quality modeling, failed to address impacts from increased electricity demand due to the Project, and failed to analyze the increased electricity demand due to the proposed air quality mitigation program as required by CEQA. We previously commented that as a result, operational emissions attributable to the Project were considerably underestimated. (Fox 2001, Comment I.C; Fox & Pless 2004, Comment V.F.) We herewith incorporate these comments by reference.

Response: As explained in Response to Comment AL00033-36 of the LAX Master Plan Final EIR, the Supplement to the LAX Master Plan Draft EIS/EIR addressed air quality impacts from increased electricity production in Section 4.6, Air Quality (subsection 4.6.10). As explained in Section 5.6 of the SAIP Draft EIR, the SAIP is consistent with that analysis regarding electricity consumption and production, and there is no new information or change in circumstances that would warrant additional analysis of this potential impact.

SAIP-AL00006 - 14

Comment: I.C.5 Urban Heat Island Effect Is Not Included

The SAIP Draft EIR fails to analyze the urban heat island effect. Previously, in response to our comments, the Final EIR claimed that because the effect is regional and any increase in "black surfaces" at LAX would be minimal with respect to the entire LAX urban area, the contribution of LAX to the urban heat island effect would be effectively zero. (LAX Master Plan Final EIR, Response to Comment AL00033-330.) We disagree and refer to our previous comments. (Fox & Pless, Comment V.E.)

Response: As explained in Response to Comment AL00033-330 in the LAX Master Plan Final EIR, urban heat island effects are regional effects. Since the comparative scales of the Los Angeles urban area compared to the scale area of increased "black surfaces" is immensely disproportionate, any increase in "black surfaces" at LAX would be minimal with respect to the entire Los Angeles urban area.

Regardless, the majority of any new pavement associated with the SAIP will be "white surface." While most of the "white surface" will be painted green for the benefit of aircraft operations, the total square yardage of "black surface" after the project will be less than what currently exists. 496,000 square yards of "black surface" will be removed, to be replaced by only 371,556 square yards of "black surface." Therefore, the contribution of construction of the SAIP to total "black surface" would result in a reduction of "black surface" by 124,444 square yards.

SAIP-AL00006 - 15

Comment: I.D Mitigation Is Inadequate

The SAIP Draft EIR does not require any additional project-specific mitigation measures emissions beyond those required by the MMRP and relies solely on the adequacy of the MMRP. (SAIP Draft EIR, p. IV-121.) My colleague Dr. Phyllis Fox and I previously commented on the inadequacy of the MMRP whose latest revision (September 2004) does little to alleviate the problems we had identified. Rather than reiterating our detailed past comments in their entirety in this comment letter, they are herewith incorporated by reference. (Fox 2001, Comment IV; Fox & Pless 2003, Comment V; Fox & Pless 2004, Comment VI.) The comments below merely summarize and highlight the major problems associated with LAWA's proposed mitigation program.

Response: This comment reiterates the commentor's prior comments and does not raise any specific issues with the adequacy of the SAIP EIR, except to note the commentor's disagreement with its air quality analyses. More specific responses are provided to the commentor's more specific comments, SAIP-AL00006-16 through SAIP-AL00006-21 and to the commentor's previous comments on the SAIP Draft EIR, for example Responses to Comments SAIP-AL00005-37 through SAIP-AL00005-39.

SAIP-AL00006 - 16

Comment: I.D.1 MMRP Is Inadequate To Mitigate LAX Master Plan Emissions Let Alone Increased Emissions Prom The SAIP

The MMRP states that "[a]t a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those [mitigated operational and construction emissions] identified in Table AD-5-8." (MMRP, p. 36.) As we pointed out in our previous comments on the LAX Master Plan, the emission levels presented in Table AD-5-8 were based on considerably underestimated emissions for Alternative D. Consequently, actual emissions will be much larger and not adequately mitigated by the MMRP. (See Fox & Pless 11/04, Comment VI.B.) The fact that the MMRP will not be able to achieve the proposed emission limits in Table AD5-8 is now supported by the SAIP Draft EIR's admission to considerably higher emissions than those accounted for in the LAX Master Plan and the MMRP.

The SAIP is only the first project in a long list to be implemented under the Master Plan, and by no means one of the largest. It can be safely assumed that the analysis of future LAX Master Plan components will also result in higher emissions than accounted for in the LAX Master Plan, particularly since they will also rely on baseline years with lower activity than previously assumed in the LAX Master Plan. (See Comment I.A.) Therefore, the MMRP, and by extension, the mitigation for the SAIP Draft EIR, are inadequate because they only intend to mitigate emissions to the level specified in the LAX Master Plan.

Response: The first part of this comment refers to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to the SAIP or the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR. Please see Topical Response TR-SAIP-GEN-3 regarding implementation of proposed SAIP mitigation measures.

SAIP-AL00006 - 17

Comment: I.D.2 No Accounting Of Emissions Attributable To LAX Master Plan Project Components

It remains entirely unclear how the MMRP intends to verify that emissions from all the various project components of the LAX Master Plan, including the SAIP, are, in fact, reduced to the specified level. Nowhere does the MMRP contain a provision to keep track of the emissions from its various project components and to determine whether they would together exceed emissions levels specified in Table AD5-8; nor does it contain a provision specifying the course of action to be taken if these specified emission levels can not be met, which is very likely.

Response: This comment is similar to comment SAIP-AL00005-38; please see Response to Comment SAIP-AL00005-38. Please also see Response to Comment SAIP-AS00001-1 regarding adherence to emission reduction targets.

SAIP-AL00006 - 18

Comment: I.D.3 Mitigation Plan Will Be Prepared Outside of Public Review

The mitigated emissions inventories presented in the SAIP Draft EIR for Project construction and operations are based on the assumption that all four air quality mitigation measures identified in the MMRP would be in place at the time of construction of the Project, i.e. in 2005. (SAIP Draft EIR, pp. IV-113 and IV-121.) Specifically, mitigation measure MM-AQ-1 of the MMRP specifies that "LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan Mitigation Plan for Air Quality (LAX MP-MPAQ) ... in consultation with the FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD)." The SAIP Draft EIR further requires that "[b]asic LAX-MP-MPAQ and the Construction-Related components [are] to be completed prior to issuance of grading or demolition permit for first Master Plan project." (MMRP, p. 36.) The SAIP Draft EIR indicates that Project construction is planned for April 2005 through March 2006. (SAIP Draft EIR, p. IV-90.) Clearly, construction is planned to commence as soon as the Project EIR is finalized and approved, yet LAWA has yet to provide the public with even a draft version of the LAX-MP-MPAQ. It appears that this mitigation plan will be prepared fully beyond and outside of public review. This is entirely unacceptable, particularly for a project-level CEQA review. A reviewer must be able to review the adequacy of mitigation program to determine whether all feasible mitigation was required.

Response: Development of the MPAQ has commenced and LAWA is working in consultation with federal, state, and local agencies to further expand and refine existing air mitigation programs at LAX. Preparation of this plan will be conducted in full compliance with CEQA and will be completed prior to the commencement of construction on the SAIP. As explained in the LAX Master Plan EIR, performance standards applicable to the MPAQ guarantee its effectiveness, at least to the levels anticipated in the LAX Master Plan EIR.

Although the MPAQ will be completed prior to commencement of construction on the SAIP, because the SAIP Draft EIR preceded the final MPAQ, the MPAQ will incorporate the air quality mitigation measures applicable to the SAIP. It also acknowledges the analysis and conclusion of the SAIP Draft EIR that no air quality mitigation measures other than those identified in the LAX Master Plan Final EIR are applicable to the SAIP. In any case, the SAIP Draft EIR concludes that because these measures cannot be quantified in some cases, the potential impacts remain significant and unavoidable.

SAIP-AL00006 - 19

Comment: I.D.4 Mitigation Measures Are Not Enforceable

Several of the mitigation measures included in the MMRP, upon which the SAIP Draft EIR relies for its emissions estimates, are not enforceable as proposed. For example, most mitigation measures fail to include specific performance standards that would allow them to be implemented, let alone allow their effectiveness to be evaluated. None of the proposed measures quantify the number of units that would be involved, or the time frame over which the action would occur. Similarly none of these measures describe the proposed mitigation with enough specificity to allow it to be implemented, let alone reviewed by the public or enforced if eventually adopted. Presumably, these performance measures will be part of the LAX-MP-MPAQ, however, as discussed above in Comment I.C.3, the public has never been presented with a detailed plan.

For example, one mitigation measure requires LAWA to "[s]pecify a combination of electricity from power poles and portable diesel- or gasoline-fueled generators using 'clean burning diesel' fuel and exhaust emission controls." Yet this specification is nowhere to be found; neither is any kind of performance measure or resulting emission reduction efficiency. Other mitigation measures simply require mitigation "[t]o the extent feasible" without identifying what constitutes this feasibility. (MMRP, p. 41, MM-AQ-2.)

To be enforceable, the mitigation measures must be quantifiable. Thus, the description of the measure must specifically state what infrastructure would be provided; when it would be provided, and how compliance would be verified. However, the MMRP merely cites "annual progress reports, summarizing the nature and effectiveness of air quality mitigation measures that were implemented during the year" as the only action indicating compliance.

Response: As explained in Response to Comment FAL00003-57 in the LAX Master Plan Final EIS, mitigation measures are made fully enforceable by their inclusion in the LAX Master Plan MMRP (Pub. Res. Code §21081.6) and by their inclusion as conditions of approval of the LAX Master Plan and the SAIP. In addition, the LAX Specific Plan provides additional review and enforcement mechanisms such as including measures as requirements of construction contracts. The Mitigation Plan for Air Quality (MPAQ), being developed under LAX Master Plan Mitigation Measure MM-AQ-1, will provide additional mechanisms by which to ensure that all feasible mitigation measures are identified and implemented.

The MPAQ will incorporate the air quality mitigation measures applicable to the SAIP. It also acknowledges the analysis and conclusion of the SAIP Draft EIR that no air quality mitigation measures other than those identified in the LAX Master Plan Final EIR are applicable to the SAIP. In any case, the SAIP Draft EIR concludes that because these measures cannot be quantified in some cases, the potential impacts remain significant and unavoidable.

SAIP-AL00006 - 20

Comment: I.D.5 Additional Feasible Mitigation Exists

CEQA requires that a lead agency implement all feasible mitigation to reduce significant adverse impacts. LAWA admits to significant and unavoidable impacts from implementation of the LAX Master Plan and the SAIP, yet fails to require all feasible mitigation in its proposed MMRP. Because of the significant adverse impacts of the SAIP and future project components of the LAX Master Plan, all feasible mitigation must be required.

Offsets

We previously commented on the opportunities to offset emissions outside of LAX, e.g., retrofitting heaters, boilers, furnaces, generators, and turbines in the South Coast Air Basin ("SoCAB"), or acquiring RECLAIM offsets. (Fox 2001, Comment IV.F; Fox & Pless 2004, Comment VI.C.) LAVA declined to consider the retrofitting off-airport combustion sources, arguing that emission reductions elsewhere would not mitigate emissions from LAX and that the FAA has no legal authority over equipment that does not belong to it. (Final EIR, RTC AL00033-336.) We disagree with this reasoning. The Final EIR does not address the option of acquiring RECLAIM offsets.

For example, we suggested requiring emission offsets if ROG or NOx emissions exceed 6.0 tons/quarter based on a recommendation by the San Luis Obispo Air Pollution Control District to mitigate the enormous impacts associated with implementation of the Project. The mitigated emissions of the SAIP Project alone by far exceed these thresholds (peak Quarter 3: 20 ton/quarter ROG and 74 ton/quarter NOx. (Ricondo 08/05, spreadsheet "Emissions Summary.") Yet LAVA rejected our suggestion as "facially infeasible" and continues that it "will be reconsidered if information becomes available demonstrating feasibility." LAVA further insisted that a regulatory limit from outside SCAQMD jurisdiction does not apply." (CDM 12/04 20, p. 26.) This justification for not using offsets is absurd. Offsets work just as well in the South Coast Air Basin as they work elsewhere. In fact, the SCAQMD was the first agency to implement an emissions trading program based on offsets with RECLAIM in 1994, which has been very successful in reducing basin-wide emissions. Offsets are feasible and frequently required as mitigation for large projects.

Offsetting project emissions with retrofits elsewhere is frequently required for large projects, where emission reductions cannot be achieved on site, particularly for projects with a considerable regional impact as is the case here. For example, the California Energy Commission ("CEC"), which follows a CEQA-equivalent process to license power plants, frequently requires offsite mitigation. See, for example, the mitigation program required for the proposed Riverside Energy Resources Center ("RERC"), which requires as a Condition of Exemption ("CoE") that a specified amount of operational emission offsets be developed through the following measures:

1. The retrofit of emission controls on diesel powered school buses within the Riverside School District or directly adjacent school districts.
2. The retrofit of emission controls on diesel powered equipment under the direct or contracted control of the City of Riverside.
3. The reduction or elimination of other combustion sources within the city boundaries of the City of Riverside as approved by the CPM [Construction Project Manager].
4. Any remaining emission reductions not provided as specified above from their voluntary surrender and retirement of emission reduction credits or RECLAIM trade credits banked with the South Coast Air Quality Management District and approved by the CPM. (RERC Final Initial Study21, CoE AQ-1.)

20 Inventory of Proposed and Potential Air Quality Mitigation Measures for Lax Master Plan Alternative D, Attachment to Memorandum from Anthony Skidmore, CDM, to Herb Glasgow, Los Angeles World Airports, Inventory of Air Quality Mitigation Measures Considered in Conjunction with the LAX Master Plan EIS/EIR, December 6, 2004.

21 California Energy Commission, Riverside Energy Resources Center, Final Initial Study, Application for Small Power Plant Exemption, 04-SPPE-01, August 2004; <http://www.energy.ca.gov/sitingcases/riverside/documents/index.html>.

Response: As explained in Response to Comment FAL00003-136 in the LAX Master Plan Final EIS, Appendix A to the Record of Decision includes summaries of the mitigation actions discussed more fully in the LAX Master Plan Final EIS for each environmental impact category, including Air Quality. Based on the information disclosed in the Lax Master Plan Final EIS, the FAA found that all reasonable steps have been taken to minimize the significant adverse effects of the LAX Master Plan, including the SAIP.

As noted in the LAX Master Plan MMRP, LAVA will expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan Mitigation Plan for Air

Quality (LAX MP-MPAQ). Of import, the LAX MP-MPAQ shall be developed in consultation with the FAA, USEPA, ARAB, and SCAQMD, as appropriate, and shall include technologically/legally feasible and economically reasonable methods to reduce air pollutant emissions from aircraft, GSE, traffic, and construction equipment both on and off the airport. This is currently underway. As LAWA develops the details of the LAX MP-MPAQ, it will seek additional review and comments from FAA, USEPA, CARB, and SCAQMD on these new documents. The intended purpose of the LAX MP-MPAQ is to ensure that all the feasible mitigation measures are identified and implemented to reduce the air quality impacts of the LAX Master Plan, including the SAIP, at least to the levels noted in the Final EIS for the LAX Master Plan and are maintained during and following project implementation.

Although the MPAQ will be completed prior to commencement of construction on the SAIP, because the SAIP Draft EIR preceded the final MPAQ, the MPAQ will incorporate the air quality mitigation measures applicable to the SAIP. It also acknowledges the analysis and conclusion of the SAIP Draft EIR that no air quality mitigation measures other than those identified in the LAX Master Plan Final EIR are applicable to the SAIP. In any case, the SAIP Draft EIR concludes that because these measures cannot be quantified in some cases, the potential impacts remain significant and unavoidable.

The commentor asserts that LAWA declined to consider their previous comment on opportunities to offset emissions outside of LAX by either retrofitting non-LAX sources of pollution or acquiring RECLAIM offsets. As stated in Response to Comment FAL00003-136 in the LAX Master Plan Final EIS, neither the FAA nor LAWA has legal authority over equipment that does not belong to them; therefore, mitigation measures for off-airport emission sources are often not feasible. Additionally, LAWA/LAX already participates in the RECLAIM program and is pursuing the option of acquiring additional RECLAIM offsets. Participation in the RECLAIM program, however, is a regulatory issue and not considered part of any mitigation measure. Nonetheless, it does serve to further reduce or avoid potential environmental impacts of the LAX Master Plan and the SAIP.

SAIP-AL00006 - 21

Comment: Other feasible mitigation measures

LAWA dismisses a large number of proposed mitigation measures because they "[m]ay be duplicative of and/or obviated by the implementation of ... components of MMAQ-2" without any further explanation. (CDM 12/04, pp. 7-11.) Review of MMAQ-2 shows that most of the such-dismissed mitigation measures are neither part of MMAQ-2 nor obviated by implementation of MMQA-2.

Further, there are other feasible mitigation measures not contained in the list of mitigation measures evaluated by LAWA such as the use of electric welders to avoid emissions from gas or diesel welders in portions of the project sites where electricity is available. This measure is required for the SCAQMD's RECLAIM program, as well as for other programs.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

The comment pertains to the overall LAX Master Plan and the Mitigation Monitoring and Reporting Program (MMRP) and does not raise issues specific to the SAIP or therefore, to the SAIP Draft EIR. The commentor is referring to mitigation measures proposed by the City of El Segundo in Public Comment Letter AL00033, which was submitted during the public review period for the LAX Master Plan EIS/EIR.

During preparation of the LAX Master Plan Draft EIS/EIR, LAX Master Plan Supplement to the Draft EIS/EIR and the LAX Master Plan Final EIR, an extensive list of potential air quality mitigation measures was evaluated by the LAX Master Plan Team. In general terms, these measures were segregated into three broad categories: (1) construction, (2) airport operational and (3) surface transportation. This initial list was compiled from a variety of sources including mitigation measures already in-place or planned for other airports across the United States (including LAX) and around the world; measures contained in publications by the U.S. EPA, CARB and SCAQMD; and measures that were developed specifically for the overall Master Plan project.

Overall, more than 300 individual measures were considered in terms of their potential effectiveness, enforceability and applicability to the LAX Master Plan. The listing of all potential measures considered for the overall Master Plan project is included in a memorandum from Anthony Skidmore, CDM, to Herb Glasgow, LAWA, entitled "Inventory of Air Quality Mitigation Measures Considered in Conjunction with the LAX Master Plan EIS/EIR" and dated December 6, 2004. Of these, 19 were obtained from City of El Segundo comments (comment letter AL00033 in Part II-Volume 3 of the Final EIS), 18 were obtained from the South Coast Air Quality Management District comments (comment letter AR00004 in Part II-Volume 2 of the Final EIS), and 7 were obtained from the other public comments. Further, over 100 suggested measures were either part of the Master Plan design, part of an ongoing LAWA program, or required by existing regulations and could not be categorized as mitigation. Those that were already in-place at LAX or otherwise required by regulation were identified to avoid "double-counting" their air quality benefits. Using this refined list of air quality mitigation measures, combined with agency and public comments received regarding mitigation, the LAX Master Plan Team developed a list for implementation. Those mitigation measures that were included in the LAX Master Plan Final EIR were adopted as part of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) for the LAX Master Plan.

LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the MMRP. The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR and the LAX Master Plan MMRP are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. Although the MPAQ will be completed prior to commencement of construction on the SAIP, because the SAIP Draft EIR preceded the final MPAQ, the MPAQ will incorporate the air quality mitigation measures applicable to the SAIP. It also acknowledges the analysis and conclusion of the SAIP Draft EIR that no air quality mitigation measures other than those identified in the LAX Master Plan Final EIR are applicable to the SAIP. In any case, the SAIP Draft EIR concludes that because these measures cannot be quantified in some cases, the potential impacts remain significant and unavoidable.

The commentor's statements regarding the use of electric welders and SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program are noted. LAWA is one of the participants in the RECLAIM program and abides by the provisions of Regulation XX as applicable. It should be noted that the RECLAIM program allows flexibility in how a facility meets programmatic reductions in emissions of NOx and SOx. Facilities generally are not required to add Best Available Retrofit Control Technology (BARCT) to any specific equipment. Programmatic reductions may be met by a variety of options, including control beyond BARCT, efficiency improvements, or equipment replacements. It is also noted that construction of the SAIP is not anticipated to require the use of diesel or gas welders and therefore the commentor's suggested mitigation measure might not be applicable to the SAIP.

SAIP-AL00006 - 22

Comment: II. THE SAIP DRAFT EIR FAILS TO ADEQUATELY DISCLOSE IMPACTS AND IS INCONSISTENT AND INCOMPLETE

A Draft EIR is first and foremost a public information document, which should "facilitate both public input and the decisionmaking process." (Russian Hill Improvement Assoc. v. Board of Permit Appeals, 44 Cal. App. 3d 158, 168 (1975).) Here, the SAIP Draft EIR obstructs this basic requirement of CEQA by being not transparent, internally inconsistent, and incomplete, thus leaving the reviewer guessing rather than being able to rely on the analysis presented.

Response: The SAIP Draft EIR fulfills the basic CEQA requirement to which the commentor refers by addressing highly technical topics in plain language that serves to make accessible and transparent to the layperson the highly complicated nature of the issues being considered. In order to help facilitate ease in reading, the SAIP Draft EIR includes an Executive Summary that presented the key findings of the more detailed analysis, and compared the impacts of each alternative. Additionally, the SAIP Draft EIR is clearly organized with extensive use of summaries, explanatory charts, and diagrams so that it can be useful and understandable to the reader. Acronyms, where used, are explained.

Please see Response to Comment SAIP-PC00007-7 regarding document adequacy.

SAIP-AL00006 - 23

Comment: II.A The SAIP Draft EIR Is Not Transparent And Therefore Fails To Adequately Disclose Impacts

The SAIP Draft EIR, beyond mentioning that incremental aircraft operations are considerably higher than assumed in the LAX Master Plan for this component, fails to provide a comprehensive discussion of this fact and its implications. The SAIP Draft EIR contains only a few cryptic statements viz. "the incremental impacts of the SAIP appear higher than the increment for Alternative D analyzed in the Final EIR" or "these significance conclusions [regarding air quality] are consistent with those in the Master Plan Final EIR. (SAIP Draft EIR, pp. IV-142 and IV-121.) However, nowhere does the Draft EIR provide a direct comparison of its air quality impacts and human health risks with the results determined by the LAX Master Plan for this project component. This leaves the reviewer guessing just how much larger the incremental impacts for this project component are than previously analyzed.

Response:

The LAX Master Plan Final EIR did not evaluate the impacts of individual Master Plan components; rather, the LAX Master Plan Final EIR evaluated the impacts of the entire Master Plan program, including airside improvements, landside improvements, and collateral development. Therefore, a direct comparison cannot be made between the results presented in the SAIP Draft EIR and those presented in the LAX Master Plan Final EIR. In addition, the LAX Master Plan Final EIR did not include an analysis of air quality and health risk impacts associated with Alternative D in 2005; rather, the interim year analyzed was 2013, which was identified as the year of peak combined operations and construction impacts for these resources. It should be noted that CEQA does not require that a tiered EIR compare the impacts identified in the tiered EIR to the results of the first-tier EIR; rather, the tiered EIR need only address significant effects on the environment that were not fully addressed in the prior EIR or for which new relevant information has become available. See Public Resources Code § 15152(f). Here, that was done with respect to potential air quality impacts related to construction and health risk impacts based on the particular time frame in which the SAIP's air quality impacts would occur (approximately 2006 to 2008).

The LAX Master Plan Final EIR does include some air quality data that can be compared to the results of the SAIP Draft EIR, and such comparisons were made in order to provide the reader and decision-makers with the context of the conclusions. Specifically, the LAX Master Plan Final EIR, Appendix F-B, Attachment 4, Table 4-2 includes emissions estimates for the No Action/No Project Alternative in 2005, which also represented estimated emissions for Alternative D in 2005. (No dispersion analysis for Alternative D 2005 was conducted.) These results are compared to the results of the SAIP Draft EIR emissions analysis below

As discussed in Section 4.3.6.1.2 (Airport Emissions), the SAIP Draft EIR provided a comprehensive discussion of the change in operational emissions due to the shift in aircraft operations from Runway 7R 25L to other runways during construction of the SAIP. Although temporary, a slight reduction in aircraft activity is expected to occur in 2005 as a result of construction activities at the airport. Nevertheless, several factors contribute to a marginal increase in emissions under Project (2005) conditions compared to the 2005 Alternative D emission estimates presented in the LAX Master Plan Final EIR (Appendix F-B, Attachment 4, Table 4-2).

- SIMMOD modeling conducted for the SAIP reflects a slight variation in the fleet mix;
- The shift in aircraft operations from Runway 7R-25L to other runways results in additional aircraft taxi and queue time; and
- Consistent with the Final General Conformity Determination, a constant mixing height of 2,050 feet was used instead of 1,800 feet which was used in the LAX Master Plan Final EIR. This increase in mixing height results in an increase of climbout time for departing aircraft and an increase in associated pollutant emissions.

In addition, Project (2005) emissions were analyzed using the most current version of EDMS 4.21, in which emissions increased in comparison to previous versions of the model for aircraft time-in-mode splits. The LAX Master Plan Final EIR was based on EDMS version 4.11. Project (2005) conditions compared to the 2005 Alternative D scenario in the LAX Master Plan Final EIR resulted in a marginal increase in emissions (2% for CO, 6% for VOC, 10% for NOx, 9% for SOx, and 3% for

PM10). As discussed in Response to Comment SAIP-AL00006-7, the increase in emissions is primarily a function of the change in mixing height and using FAA's most recent version of EDMS and not as a result of implementation of SAIP. The LAX Master Plan Final EIR, Section 4.6.9.4 (page 4-748) and the SAIP Draft EIR, Section 4.3.9 (page IV-121) identify the mitigated emissions from the same pollutants (CO, VOC, NOx, SO2, and PM10) as significant for operations under Alternative D and the SAIP, respectively. Therefore, the significance conclusions in the SAIP Draft EIR are consistent with those presented in the LAX Master Plan Final EIR, as stated in Section 4.3.9 of the SAIP Draft EIR, regardless of the newer model being used. In addition, the SAIP operational emissions as identified by the updated model are not materially different than the Alternative D operational emissions identified in the LAX Master Plan EIR.

Regarding incremental health risk impacts, the SAIP Draft EIR identified potentially significant health risk impacts in 2005. As noted above, the LAX Master Plan Final EIR did not analyze health risk impacts for Alternative D in 2005. As explained in Section 4.4.6.5 of the SAIP Draft EIR, several factors contributed to the SAIP Draft EIR results, including (1) increased taxi/idle times during SAIP construction, which were not accounted for in the LAX Master Plan Final EIR, (2) lower operations during SAIP construction, which were similarly not accounted for in the LAX Master Plan Final EIR, and (3) most importantly, the difference in incremental operations using the 2003 Baseline in the SAIP Draft EIR compared to using the 1996 Baseline in the LAX Master Plan Final EIR. In any case, by analyzing and disclosing these impacts that potentially occur due to new or more specific information, or changed circumstances such as the availability of a new model, the SAIP Draft EIR did precisely what CEQA requires a tiered EIR to do.

SAIP-AL00006 - 24

Comment: Further, the SAIP Draft EIR frequently explains that its emissions inventory was based on the assumption that certain air quality mitigation measures identified in the MMRP would be in place at the time of construction and that therefore its emissions inventories represent "mitigated emissions." (See, e.g., SAIP Draft EIR, p. IV-2.) The SAIP Draft EIR consequently specified potential emissions reduction efficiencies for these mitigation measures (Table 4.3-8), yet it failed to discuss how these potential emissions reductions were determined. Nor does the SAIP Draft EIR provide a justification for using the upper end of the range of potential emission reductions for its emissions inventory. For example, the Draft EIR assumed a 63% reduction in fugitive dust PM10 and PM2.5 based on the use of soil stabilizers. The SCAQMD CEQA Guidelines, for example, specify a range of emission reduction efficiency of 30% to a maximum 65% for this mitigation measure. (SCAQMD CEQA Guidelines²², p. 11-15.)

22 South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993.

Response: Potential emission reduction measures quantified as part of the air quality analysis in the SAIP Draft EIR are summarized in Table 4.3-8 on page IV-114. The emission reduction percentages were derived from information contained in the LAX Master Plan Final EIR and Section 2.3.2.1 of Appendix S-E of the LAX Master Plan Supplement to the Draft EIS/EIR. The 63 percent reduction in fugitive dust (PM10 and PM2.5) cited by the author of the comment would be achieved through the compliance with SCAQMD Rule 403 and the use of chemical soil stabilizers. Contrary to the commentor's assertion, the emission reduction efficiency for soil stabilizers was taken from the middle of the range of achievable emission reduction presented in Table 11-4 of SCAQMD's CEQA Air Quality Handbook.

As discussed in Section 4.3.5 of the SAIP Draft EIR, several construction mitigation measures were not readily quantifiable and hence were not relied upon in determining air quality impacts associated with the SAIP. Only those measures listed in Table 4.3-8 on page IV-114 were quantified and factored into the air quality analysis. Nonetheless, these measures that were not quantifiable (specifically those listed in Table 4.3-9 on page IV-115) are applicable to the SAIP and would further reduce potential project emissions.

SAIP-AL00006 - 25

Comment: II.B Construction Emissions Inventory Is Inconsistent

The construction emissions inventory assumes varying silt contents to estimate fugitive dust emissions from unpaved roads/compactor and miscellaneous (7.5%) and wind erosion of storage piles (6.9%). (Ricondo 08/05, spreadsheets "Fugitive Dust" and "Wind Erosion.") The silt content of 6.9% for calculation of storage pile wind erosion is specified as an ASTM Test Method default. Presumably, the silt content of 7.5% is based on empirical results and should therefore be used for the entire site. Fugitive dust emissions from wind erosion may therefore be underestimated and should be recalculated with the appropriate silt content.

Response: Fugitive dust emissions from unpaved roads were calculated using methodologies presented in Section 13.2.2 of the U.S. Environmental Protection Agency's document Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources. Fugitive dust emissions from wind erosion from storage piles were calculated using methodologies presented in Section 13.2.4 of AP-42. The equation used to calculate fugitive dust generated by vehicle travel on unpaved roads is different than the equation used to calculate fugitive dust caused by wind erosion of storage piles. Values used for empirical constants and variables, such as silt content, are different in the two equations. The use of a different value for silt content in the two calculations is not inconsistent as stated by the author of the comment. Fugitive dust emissions from wind erosion were not underestimated. The equations used in the air quality analysis for the SAIP Draft EIR conform to EPA guidelines for emission estimation.

SAIP-AL00006 - 26

Comment: II.C Human Health Risk Assessment Is Inconsistent And Incomplete

The human health risk assessment presented in the SAIP Draft EIR is equally inconsistent. The SAIP Draft EIR states that material safety data sheets ("MSDS") were used develop air speciation profiles for TAC VOC emissions from asphalt paving and architectural coatings. (The cited MSDS are nowhere to be found in the SAIP Draft EIR.) Attachment 1 to Appendix L to the SAIP Draft EIR provides a summary for construction TAC VOC emissions of 5.4 lb/day from asphalt paving, 3,628 lb/day from pavement marking paint evaporation, and 7.11 lb/day from construction painting (valve piping, appurtenances, and connection paint) for a total of 3,640.51 lb/day or 1.82 ton/day. (SAIP Draft EIR, Appx. L, Tables L.1-5 through L.1-7.) Yet the SAIP Draft EIR fails to include any of these emissions in its summary tables for annual and peak daily TAC VOC emissions from construction and only includes emissions from combustion exhaust. For example, the Draft EIR shows total peak daily construction TAC VOC emissions of only 171.79 lb/day or 0.086 ton/day. (Draft EIR, Appx. L, Tables L-3 and L-4.)

Response: The health risk assessment presented in the SAIP Draft EIR provided a thorough analysis of potential health risk impacts as a result of implementation of the SAIP. However, as the commentor notes, TAC VOC emissions from asphalt paving and architectural coatings were inadvertently not included in Appendix L, Table L-3 (Annual Average SAIP Construction Source TAC Emissions in 2005) and Table L-4 (Peak Daily Construction Source TAC Emissions). However these emissions were included in the TAC VOC analysis for construction. Specifically, Section L.3.1.1.4, Construction Materials, of Appendix L provides a detailed discussion of these potential TAC sources and detailed emission calculations were provided in Attachment 1 of Appendix L. In addition, as shown in Tables L.4-1 through L.4-3 in Attachment 4 of Appendix L, TAC VOC emissions from construction material sources were included in the calculation of human health risk impacts. Nevertheless, Table L-3 and Table L-4 have been updated to reflect TAC emissions from construction materials. Please see Chapter IV, Corrections and Additions to the Draft EIR.

Regarding the material data safety sheets (MSDS), relevant information from the MSDS were included in Tables L.1-5 through L.1-7 in Attachment 1 of Appendix L; therefore, the MSDS were not included the SAIP Draft EIR. However, this information was provided to the City of El Segundo in response to a request from Shute, Mihaly & Weinberger, LLP in a letter dated August 11, 2005. That letter specifically requested "all documents relating to any air quality emissions and ambient air quality/human health risk modeling input/output files prepared or received by LAWA in connection with the Southside Airfield Improvement Project Draft EIR."

SAIP-AL00006 - 27

Comment: III. REMOVAL OF LAX MASTER PLAN PROJECT COMPONENTS MAY AFFECT AMBIENT AIR QUALITY AND HUMAN HEALTH RISK IMPACT ANALYSES

The Los Angeles City Council approved a so-called "Consensus Plan," which identified certain LAX Master Plan project components that, in all likelihood, will never be built. As the City of El Segundo has previously noted, the Consensus Plan may have serious consequences on the air quality impacts that were neither discussed nor analyzed in the SAIP Draft EIR.²³

For example, one of these project components that is unlikely ever to proceed is the northern runway complex reconfiguration. As a result, more and heavier aircraft will probably use the southern runway configuration than anticipated and analyzed in the SAIP Draft EIR. Shifting more emissions towards the south side of the airport may considerably affect the ambient air quality dispersion modeling and lead to different conclusions regarding ambient air quality and human health impacts.

²³ See, e.g., December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger at pp. 8-9.

Response: This comment does not raise an environmental impact or CEQA issue relevant to the SAIP, but rather questions the wisdom of the policy decision that the City made at the time it adopted the LAX Master Plan and offers conjecture based upon that decision. Accordingly, no further response is required.

Nonetheless, it is important to point out that the so-called "yellow light" projects have not been eliminated from the LAX Master Plan and it would be speculative to assume at this time that they will be eliminated. By approving the Consensus Plan, the Los Angeles City Council chose to provide approval at a programmatic level, with additional environmental review at the project level to be accomplished according to the procedures established under the LAX Specific Plan, consistent with CEQA Guideline 15152. CEQA Guideline 15152 provides for "tiering," or use of analysis in a broader EIR, such as the LAX Master Plan Final EIR, in later related project EIR's like the SAIP Final EIR. Please see Topical Response TR-SAIP-PD-2 for further explanation on the tiering process.

Post construction operational impacts of the SAIP were analyzed in the LAX Master Plan EIR. The SAIP EIR need only address the direct impacts of the construction of the SAIP, the indirect impacts of the temporary changes to airport operations due to construction, and the impacts of the operation of the SAIP in those limited impact categories not already addressed in the LAX Master Plan Final EIR. CEQA does not require a tiered EIR to evaluate potential impacts based on possible future failure to implement later related projects. Indeed, CEQA expressly discourages such speculation. CEQA Guideline 15145. Therefore, the suggestion that this Final EIR need evaluate potential environmental impacts arising from LAWA's hypothetical failure to reconfigure the airport's north runway system is not supported by the facts or evidence.

SAIP-AL00006 - 28

Comment: IV. CONCLUSION

The Draft EIR fails to satisfy the requirements of CEQA for a number of reasons. The SAIP Draft EIR is not transparent, is internally inconsistent, and does not adequately disclose the impacts associated with implementation of the Project. Most importantly, however, the significant impacts from implementation of the SAIP are not adequately mitigated. The proposed mitigation program is entirely inadequate to mitigate the enormous adverse impacts from construction and operation of the Project. Additional feasible mitigation exists and should be included in the proposed MMRP and required for the SAIP Draft EIR. Further, the mitigation plan must be made available for public review and several proposed mitigation measures must be revised to be fully enforceable. Finally, the potential removal of LAX Master Plan components that were not analyzed in the SAIP Draft EIR may considerably affect ambient air quality and human health risk analyses.

In sum, LAWA concludes that impacts from construction and operation of the Project are significant and unavoidable without making a genuine effort to reduce the Project's enormous adverse impacts on air quality and human health. The shortcomings of the SAIP Draft EIR illustrate the inadequacy of the LAX Master Plan environmental review process and the inadequacy of the MMRP. The SAIP Draft EIR should be revised to address the above comments and be recirculated for public review.

Response: Please see Topical Responses TR-SAIP-PD-2 regarding the relationship of the SAIP Tiered EIR and the LAX Master Plan EIR and TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. Regarding the commentor's assertion that the SAIP Draft EIR is "internally inconsistent," please see Response to Comment SAIP-AL00006-25, which explains that it is appropriate to use different methodologies to calculate fugitive dust emissions from unpaved roads and wind erosion emissions from storage piles. Please see Response to Comment SAIP-AL00005-37 regarding mitigation measures included in the MMRP and the ongoing development of the Mitigation Plan for Air Quality (MPAQ).

Section 4.3.9 of the SAIP Draft EIR describes the impacts to air quality that will be potentially significant and unavoidable. The commentor's assertion that the SAIP Draft EIR "does not adequately disclose the impacts associated with the implementation of the Project" is not accurate; significance conclusions for the project are clearly presented in Section 4.3.9 of the SAIP Draft EIR.

SAIP-PC00001 Hyra, J A. None Provided 7/26/2005

SAIP-PC00001 - 1

Comment: Our family objects to the proposed project to relocate Runway 7R/25L. This project will create additional traffic problems and bring more noise and pollution into the adjoining neighborhoods. A regional airport solution is needed, not the LAX Master Plan.

Response: The SAIP Draft EIR addresses traffic in Section 4.2, noise in Section 4.5, and air quality in Section 4.3 and mitigation to address impacts in these areas. Supporting technical data and analyses are provided in Appendices G through J, M, and K.

The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00002 Abbott, Dwight None Provided 8/1/2005

SAIP-PC00002 - 1

Comment: The Draft EIR for SAIP is not clear on the proposed center taxiway width.
Page I-4 states 75'
Page II-3 states 100'
Page II-10 states 75"
Please advise the correct planned width.

Response: The typographical error is noted. The correct width of the proposed center taxiway is 75 feet. In response, page II-3 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

SAIP-PC00003 Whitcomb, Bernice None Provided 8/29/2005

SAIP-PC00003 - 1

Comment: As long time residents of El Segundo, my husband and I would like to protest the South Airfield Improvement Project. The noise and air pollution would adversely effect those of us who live near the airport.

Response: The SAIP Draft EIR addresses noise in Section 4.5 and air quality in Section 4.3, including the El Segundo area. Supporting technical data and analyses are provided in Appendix M and Appendix K.

In terms of aircraft noise impacts, the SAIP Draft EIR concluded that there would be no potential significant impacts on El Segundo during construction of the SAIP, as shown in Table 4.5-16 and Table 4.5-17 of the Draft EIR. Further, as shown in Table 4.5-26 of the SAIP Draft EIR, the Project would reduce the amount of acreage and population in El Segundo exposed to noise exposure effects compared with 2003 baseline conditions.

Construction activities and modified operations during the construction period would result in significant air quality impacts at or immediately adjacent to the airport fenceline. (Air quality impacts were not determined geographically by community.) Although mitigation measures adopted as part of the LAX Master Plan would reduce air quality impacts, as discussed in Section 4.3 of the Draft EIR, air quality impacts would remain significant and unavoidable.

SAIP-PC00003 - 2

Comment: Please consider constructing an end-around taxiway as an alternative to moving the south runway.

Response: The SAIP Draft EIR discussed an end-around taxiway in Section 2.2, Airfield Design Alternatives Evaluated in the LAX Master Plan, and in Section 2.2.3, End-Around Taxiway Concept Evaluation. Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00003 - 3

Comment: Since our residence would be adversely effected by the South Airfield's Improvement Project, we would also like to protest any airport expansion, including the constraining the airport to its present capacity.

Response: In reference to the potential effects on the commentor's residence, the SAIP Draft EIR addresses hydrology and water quality in Section 4.1, traffic in Section 4.2, air quality in Section 4.3, human health risk in Section 4.4, and noise in Section 4.5. The SAIP Draft EIR addresses other environmental resources in Section 5. Supporting technical data and analyses are provided in Appendices F through M.

See also Response to Comment SAIP-PC00010-25 regarding the ability of LAWA to specifically limit operations or activity at the airport.

SAIP-PC00004 Gilbert, Robert L. Los Angeles World Airports, 9/12/2005
Stakeholder Liaison Office

SAIP-PC00004 - 1

Comment: On September 10, 2005, the LAX Master Plan Stakeholder Committees met to deliver their comments on the SAIP DEIR. The LAX Master Plan Stakeholder Liaison Office (SHLO) provided the venue and program to assist in this effort. This letter constitutes the transmittal letter for the subject comments, which are attached.

It is important to note that the comments were given to SHLO through a committee process developed as part of the LAX Master Plan Compliance process. Stakeholder committee members are divided into five committees Community/Neighborhood Groups & Residents, On-airport businesses, Off-airport businesses, Small Business Affairs and CD 8-11. The intent of the process is to have the committees meet to discuss and then provide their comments on a DEIR to this office for transmittal to LAWA as a group. Please note that we had no representatives from the CD 8-11 committee for this session.

We did, however, have a contingent of Spanish speaking stakeholders, who had previously not signed up as committee members, but who asked for an opportunity to provide their comments in a separate group. You will therefore find comments from members of four committees divided into

three Groups. Be aware that comments from Group 1 are in Spanish. Though we were able to contract certified translators at the last minute for the meeting, we do not have organic certified translators to translate the comments to English.

We compiled the comments by group then highlighted which comments came from which committee. Each commenter signed the cover sheet acknowledging their participation in the process. Since we asked the committee members to RSVP, we developed a list of the attendees so that they could acknowledge their participation and thus have a collective record of the authors of the comments. Unfortunately, 50% of those who RSVP'd did not attend. As a result you'll find some blank signature blocks in the attendance sheets.

Response: Responses to the stakeholder committees' comments are provided in responses to comment letters SAIP-PC00005, SAIP-PC00006, and SAIP-PC00007. Those letters set forth the stakeholder committees' comments verbatim.

SAIP-PC00005 Aguilar, Pricilla LAX Master Plan Stakeholder 9/10/2005
Committee - Group 1

SAIP-PC00005 - 1

Comment: General Comments:

GP1-1. ¿Por qué no mueven el <taxiway> al norte del 25R? SCG

Why don't they move the taxiway to the north of 25R?

Response: The SAIP will not result in the relocation of a taxiway. A new taxiway will be constructed between existing Runway 7L-25R and relocated Runway 7R-25L as part of the SAIP. Further, there is insufficient clearance between existing Runway 7L-25R, existing Taxiway B, existing Taxiway C and existing LAX Terminals 5, 6, 7, 8, and TBIT for the construction of an additional taxiway or to move the existing runways north to allow for the new taxiway.

SAIP-PC00005 - 2

Comment: GP1-2. ¿Cual es la ventaja de este proyecto? SCG

What is the advantage of this project?

GP1-3. ¿A quien beneficia más el proyecto-al aeropuerto o la comunidad? SCG

Who does this Project Benefit more--the Airport or the Community.

GP1-4. Pienso que el proyecto es bueno para el aeropuerto, sus empleados, y también para la seguridad. SCG

I believe that the Project is good for the Airport, its employees and also the safety.

GP1-5. ¿El proyecto afectará los trabajadores del aeropuerto de algún modo? SCG

Will the project affect the airport employees in some way?

Response: The SAIP would result in the creation of approximately 250 new construction-related jobs. The project would also result in temporary construction-related impacts, including traffic, air quality, and noise impacts, that would affect airport employees as well as members of the community. The SAIP Draft EIR addresses potential construction impacts regarding traffic in Section 4.2, air quality in Section 4.3, and noise in Section 4.5. Supporting technical data and analyses are provided in Appendices G through J, K, and M. No long-term adverse impacts on airport employees are anticipated from construction of the SAIP. Long-term impacts of the overall LAX Master Plan, which includes the SAIP, are addressed in the LAX Master Plan Final EIR.

SAIP-PC00005 - 3

Comment: GP1-6. ¿La construcción acomodará el Airbus 380? SCG

Will this construction accommodate the Airbus 380?

Response: Runway 7R-25L can already accommodate the A380. The primary objective of the SAIP is the construction of a new center taxiway that will help minimize the potential for runway incursions. The A380 is anticipated to go into service at LAX beginning in 2007 and would do so regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP.

SAIP-PC00005 - 4

Comment: GP1-7. LAX como un aeropuerto internacional no deber quedarse atrás de la tecnología. SCG

LAX as an International Airport should not stay behind the times and be lagging in new technology.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00005 - 5

Comment: GP1-8. ¿Qué garantía tenemos que nuestros comentarios sean tomados en cuenta durante la decisión final de este proyecto? SCG

What guarantee do we have that our comments will be taken in to account during the final decision of this project?

Response: All comments timely submitted on the SAIP Draft EIR during the EIR comment period (which closed on September 15) will be considered by LAWA, and in accordance with CEQA Guideline 15132, written responses will be provided to all such comments as part of this Final EIR. The Final EIR is available for public review at LAX and through distribution to public libraries throughout the area, and is available electronically at www.laxmasterplan.org.

SAIP-PC00005 - 6

Comment: Chapter IV.
4.1 Hydrology and Water Quality

GP1-9. Que el proyecto protege 100% la calidad del agua. SCG

That the project should protect the water quality 100%.

Response: As discussed on page IV-22 in Section 4.1.5 of the SAIP Draft EIR, hydrology and water quality related LAX Master Plan mitigation measures and commitments identified in the LAX Master Plan Final EIR are applicable to the SAIP. LAX Master Plan Commitment HWQ-1 requires the preparation of a Conceptual Drainage Plan (CDP). The CDP has been prepared by LAWA and provides the basis for the detailed drainage improvement plans for the SAIP. The CDP is provided in Appendix A of this EIR. The proposed project-specific storm water Best Management Practices (BMPs) are consistent with the framework provided in the CDP. BMPs will be incorporated in the SAIP to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water. With implementation of these mitigation measures, no significant project-related water quality impacts would result from the SAIP.

SAIP-PC00005 - 7

Comment: GP1-10. ¿Qué tan seguros son los tanques de combustibles para prevenir un derrame? SCG

How safe are the fuel tanks in preventing a spill?

Response: There would be no modification to the LAXFUEL Fuel Farm due to construction of the SAIP. As discussed in Section 4.24.3, Safety, of the LAX Master Plan Final EIR, consistent with Los Angeles Fire Department (LAFD) requirements, LAXFUEL Corporation, the operator of the LAXFUEL Fuel Farm, has developed numerous design, operational, maintenance, safety, and emergency response plans designed to ensure that petroleum release events at the fueling facility do not occur. The LAXFUEL Fuel Farm is also designed and operated to minimize the risk of an upset of any kind and minimize the effects of an upset, should one occur. The LAXFUEL Fuel Farm is in compliance with relevant requirements of the Los Angeles Fire Code, including property setback provisions, distances between tanks, and tank construction requirements.

SAIP-PC00005 - 8

Comment: GP1-11. ¿Como van a procesar el agua que pase a través del la aerópista? SCG

How are they going to process the water that passes through the runway?

Response: The SAIP Draft EIR on page IV-27 in Section 4.1.6.2.1 discusses the different treatment Best Management Practices (BMPs) selected and incorporated into the SAIP design. Four different BMP treatment systems, including catch basin inserts, bioswales, infiltration, and storm water treatment systems (SWTS), would be utilized in various locations to remove pollutants from storm water prior to discharge into the Santa Monica Bay and Dominguez Channel watersheds and to prevent a net increase in pollutant loads to surface water.

SAIP-PC00005 - 9

Comment: Chapter IV.
4.2 Off-Airport Surface Transportation:

GP1-12. Deberían de cambiar las horas de entregas de 11:00am a 2:00pm. SCG

They should change the delivery hours from 11:00 am to 2:00 pm.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The SAIP traffic analysis was prepared to assess anticipated intersection operations during peak traffic activity associated with construction employee traffic and construction-related truck delivery traffic. As described in the SAIP Draft EIR, construction delivery vehicle trips within the traffic analysis study area would be limited to the I-405, I-105, Imperial Highway, and Pershing Drive. Construction delivery vehicles would affect only two study area intersections, namely the intersection of Imperial Highway and Pershing Drive and the intersection of Imperial Highway and Main Street. The construction delivery peak hour was estimated to occur from 3:00 to 4:00 p.m., during which time construction-related truck delivery activity is estimated to be greater than during the hours from 11:00 a.m. to 2:00 p.m. Furthermore, as shown on Exhibit 4.2-3 provided in Section 4.2 of the SAIP Draft EIR, the background traffic volumes on Imperial Highway east of Pershing Avenue between 3:00 p.m. and 4:00 p.m. are also greater than during the 11:00 a.m. to 2:00 p.m. time period. Given that both the background traffic and construction related traffic components are estimated to be greater during the 3:00 to 4:00 p.m. period analyzed than during the 11:00 a.m. to 2:00 p.m. time period, it is anticipated that the traffic conditions during the 3:00 to 4:00 p.m. period would be more critical than during the 11:00 a.m. to 2:00 p.m. period. Because the study area intersections described previously were not significantly impacted by the Project during the 3:00 to 4:00 p.m. period, it follows that the project would not create additional impacts at those same locations during the 11:00 a.m. to 2:00 p.m. time period.

If the intent of the comment is to limit the delivery hours to only between the hours of 11 a.m. and 2 p.m., then the response is as follows: Limiting the hours for deliveries to only a three-hour period each day is not practical or necessary based on the traffic impact analysis completed in Section 4.2 of the SAIP Draft EIR. Limiting the deliveries to between 11 a.m. and 2 p.m. would extend the duration of the project; thereby effecting the operation of the roadways for a longer period of time. Furthermore, limiting the deliveries to a three-hour period would likely result in greater peaking of the delivery volumes that may result in additional intersection impacts as compared with the existing assumption that delivery activities would be spread over a greater number of non-peak hours throughout the day.

SAIP-PC00005 - 10

Comment: GP1-13. Las mismas calles no deberían verse afectadas por todos los 24 meses durante de la construcción. SCG

The same streets should not be affected during all of the 24 months of construction.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The roadway traffic activity associated with the construction of the SAIP is comprised of two primary categories, namely, construction employees and construction delivery vehicles. Construction employees would park in the construction employee parking lot accessed via La Cienega Boulevard and would drive to the employee parking lot using the regional and local roadway system (refer to the SAIP Draft EIR Exhibit 4.2-5 for the location of the employee lot and the general distribution of vehicle trips). Truck deliveries, on the other hand, would be forced to use a specifically designated route to travel between the interstate freeway system and the SAIP project site. This route is comprised of Imperial Highway between the I-105 Freeway and Pershing Drive, Pershing Drive between Imperial Highway and World Way West, and World Way West between Pershing Drive and the project site. These streets were chosen because they comprise the shortest route between the freeway and the project site. It is not recommended that other streets be used by SAIP project delivery trucks because by doing so construction traffic would be on the surface street network for a longer distance, would traverse a greater number of traffic signals, and could potentially negatively effect other local area intersections.

SAIP-PC00005 - 11

Comment: GP1-14. ¿Qué avenida usaran---Century Boulevard o Imperial Highway para las entregas? SCG

What avenue will be used for deliveries, Century Boulevard or Imperial Highway?

Response: LAX Master Plan Mitigation Monitoring and Reporting Program Commitment ST-22, Designated Truck Routes, stipulates that truck deliveries would be on designated freeways and non-residential streets. Accordingly, delivery vehicle trips accessing the SAIP construction site would be limited to Pershing Drive (Imperial Highway to the project site at World Way West), Imperial Highway (Pershing Drive to I-105), I-105, and I-405. Century Boulevard will not be used for construction deliveries. The designated delivery route for the SAIP was designed to minimize truck traffic using other surface streets in the vicinity of the airport.

SAIP-PC00005 - 12

Comment: GP1-15. El aeropuerto deberá tomar pasos necesarios para asegurar que todos los vehículos de transportación relacionados con el proyecto tengan un lugar donde se puede estacionarse y que no afecte la vecindad. SCG

The Airport should take the necessary steps to make sure that all transportation vehicles related to the Project have a place to park so that they do not affect the neighborhood.

Response: Deliveries to the construction site will be made to the SAIP construction staging area located on the west side of the airport east of the interchange of World Way West and Pershing Drive (refer to the SAIP Draft EIR Exhibit 4.2-5 for the location of the construction staging area). All delivery truck

parking would be accommodated at the staging area. Furthermore, the staging area is not located adjacent to residential areas; therefore, there is no reason why construction vehicles would park on residential streets. However, LAWA, through its Ground Transportation Construction Coordination office, will enforce restrictions on construction truck routes and arrival and departure times through contractual obligations with the various contractors. Contracts between LAWA and the construction contractors would include penalties for violations of these rules.

SAIP-PC00005 - 13

Comment: GP1-16. ¿Cuándo iniciará la construcción? SCG

When will the construction begin?

Response: The targeted construction start date for the SAIP is early 2006.

SAIP-PC00005 - 14

Comment: GP1-17. ¿Ya este aprobado este proyecto? ¿Nadie se opone? SCG

Is the Project already approved? Is anyone opposed?

Response: The SAIP will not be implemented until the City certifies the Final EIR, makes written findings, and adopts a statement of overriding considerations, if necessary. A number of citizens have voiced their opposition to the LAX Master Plan, of which the SAIP is a part.

SAIP-PC00005 - 15

Comment: GP1-18. ¿Qué mejoras van haber para el túnel? SCG

What improvements will there be for the tunnel?

Response: Sepulveda Boulevard, State Route 1, travels under the south airfield. The bridge was designed and constructed in the 1950's and was retrofitted (strengthened) in 1979 to carry larger aircraft loads. The strengthening was limited to the areas immediately under the airfield pavements and areas around the pavements as required by FAA design criteria (Runway/Taxiway Safety Areas). The relocation of Runway 25L and construction of the Center Taxiway will require the strengthening of the superstructure (bridge) to extend the Runway Safety Area (RSA) to the south an additional 55 feet, which is the distance the runway is being relocated, and a portion of the infield area between the two South Runways (Runway 25L and Runway 25R) where the new taxiway will be located. The strengthening of the superstructure will consist of placing a new post-tensioned slab that will rest on the existing bridge abutments. All construction of the strengthening will be carried out on the surface of the bridge.

In addition to the strengthening mentioned above, the approach slab seat, which is an area where the airfield pavement transitions into the bridge structure, is being retrofitted. The analysis performed showed that the new aircraft loading might potentially damage the seat. The retrofitting of the seat will increase its shear capacity.

SAIP-PC00005 - 16

Comment: GP1-19. Que cada cambio de ruta afecte de la manera más mínima la vida cotidiana de los cuídanos. SCG

That each route changed should affect the citizen's daily lives in the most minor way.

GP1-20. ¿Qué entrada o salida de la autopista será la mas afectada para la comunidad? SCG

Which entrance or exit off the freeway will be the most affected for the community?

Response: Please see Responses to Comments SAIP-PC00005-10 and SAIP-PC00005-11 for additional discussion regarding construction truck delivery routes.

The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The vehicle distribution and routing assumptions are provided in Appendix J. As shown in Table J-2, for construction employees entering the employee parking lot it is anticipated that the freeway exit from westbound I-105 to westbound Imperial Highway would accommodate the most employee trips (32% of the total inbound employee trips). For construction employees exiting the study area, it is anticipated that the freeway ramp from westbound Imperial Highway to eastbound I-105 would accommodate the greatest number of employee trips (32% of the total outbound employee trips). In accordance with LAX Master Plan Mitigation Monitoring and Reporting Program Commitment ST-22 Designated Truck Routes, truck deliveries would be on designated freeways and non-residential streets. Accordingly, delivery vehicle trips accessing the SAIP construction site would be limited to Pershing Drive (Imperial Highway to the project site at World Way West), Imperial Highway (Pershing Drive to I-105), I-105, and I-405.

Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to the SAIP. Mitigation is proposed to address this potentially significant impact (See SAIP Draft EIR at Section 4.2.8), but it will not reduce the impact to a less-than-significant level.

SAIP-PC00005 - 17

Comment: GP1-21. ¿Qué impacto va a tener la orden del Alcalde de prohibir la construcción durante las horas de mayor congestión? SCG

What impact will the order of the Mayor have in prohibiting the construction during the most traffic congested hours?

Response: Executive Directive No. CP.AV-1, executed August 12, 2005, stipulates that construction by any City department or agency within the public right-of-way on major roads is prohibited during the periods of 6:00 a.m. to 9:00 a.m., and 3:30 p.m. to 7:00 p.m., with exceptions for emergency maintenance and repair. It is not anticipated that the construction of the SAIP will require construction within the public right-of-way. However, in the event that construction would be required, all SAIP contractors would be required to abide by the requirements of the Mayor's Executive Directive.

SAIP-PC00005 - 18

Comment: GP1-22. ¿Van haber menos carriles o se van a disminuir o reducir? SCG

Will there be less lanes or are they going to be reduced or be narrower?

Response: The construction of the SAIP would not have an effect on the number of lanes or roadway widths currently provided as part of the public roadway system serving the airport and neighboring communities.

SAIP-PC00005 - 19

Comment: Chapter IV.
4.3 Air Quality:

GP1-23. Que este proyecto asegure que las normas de seguridad sean de alta calidad para evitar la contaminación del aire. SCG

That this project guarantee that high safety standards are kept to avoid air pollution.

GP1-24. ¿Qué tipo de maquinas van a usar para mantener la calidad del aire? SCG

What type of machines will be utilized to maintain (protect) air quality?

Response: Air quality mitigation measures that have been proposed for the SAIP are summarized in Section 4.3.5 of the SAIP Draft EIR. Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

Please see Response to Comment SAIP-AL00005-37 regarding the development of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) and the Mitigation Plan for Air Quality (MPAQ). LAWA is in the process of finalizing the MPAQ. The MPAQ will be completed prior to construction of the SAIP and applicable components of the MPAQ will be made conditions of approval of the SAIP.

SAIP-PC00005 - 20

Comment: GP1-25. ¿Qué proceso van a emplear para disminuir el polvo del concreto que contamina al aire durante la excavación y reubicación? SCG

What process will you implement to minimize the dust from concrete that pollutes the air during excavation and relocation?

Response: Mitigation measures that have been proposed to reduce construction related dust are summarized in Section 4.3 (Table 4.3-9) of the SAIP Draft EIR.

SAIP-PC00005 - 21

Comment: GP1-26. El estudio del aire solo tomo en cuenta tres diferentes años. ¿Por qué solo estos tres años? SCG

The air quality study only shows three different years. Why only these three years?

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The LAX Master Plan Final EIR documents potential pollutant emissions for the assumed peak construction year for the Master Plan (2005), an interim year (2013), and a future operational year (2015). The air quality analyses presented in the SAIP Draft EIR examine, at a greater level of detail, potential air quality impacts specifically associated with the SAIP. The air quality presented in the SAIP Draft EIR "tiers" from the analysis and findings documented in the LAX Master Plan Final EIR. The analyses have been further refined to incorporate detailed project-related assumptions regarding construction equipment that will be utilized and airport activity levels during the construction of the SAIP.

The air quality analysis presented in the Draft EIR describes conditions in two years: 2003 (the latest full calendar year before the date of the July 2004 NOP and referred to throughout the Air Quality section as the Baseline year) and 2005 (the assumed Project peak construction year). The analysis also provides a qualitative assessment of 2008 airfield operating characteristics to confirm that post-construction emissions were adequately addressed in the LAX Master Plan Final EIR.

Please see Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR for the air quality analyses.

SAIP-PC00005 - 22

Comment: Chapter IV.
4.4 Human Health Risk Assessment:

GP1-27. ¿Por qué usaron el peor ejemplo de setenta años? ¿Por qué exageraron? SCG

Why did you use the worst example of seventy years? Why did you exaggerate?

Response: Worst-case exposure assumptions were used in the SAIP human health risk assessment at the request of the South Coast Air Quality Management District (SCAQMD). As noted in Section L.5.3 of Appendix L of the Draft EIR, the SCAQMD uses an exposure duration of 70 years in risk assessments for residential exposures for all permitting purposes and significance determinations. This exposure duration combined with other exposure parameters used in the SAIP HHRA assumes circumstances that will likely never occur and will overestimate possible cancer risks associated with the SAIP for individuals in the vicinity of the airport because the construction and operational impacts of the SAIP will only be limited to the 26 month construction period for the project. Residential children and school children were assessed with a shorter exposure duration of 6 years.

SAIP-PC00005 - 23

Comment: Chapter IV.
4.5 Noise:

GP1-28. El problema del ruido de los aviones es algo con que vivimos a diario. No por ahorrar unos cuantos dólares sacrifiquen la paz de la comunidad. SCG

The problem of noise from the airplanes is something we live with daily. Don't sacrifice the peace of the community just to save a few dollars.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response. Nonetheless, please see Topical Response TR-SAIP-N-1 regarding off-airport noise impacts.

SAIP-PC00005 - 24

Comment: GP1-29. ¿Cual es la distinción entre los niveles de construcción y el ruido de los aviones en el reporte? SCG

What is the difference between the level of noise of construction and airplane noise in the report?

Response: The difference between construction equipment and aircraft noise levels is dependent upon the source, nature of the activity (i.e., frequency, duration) and location of the source and receiver (individual hearing the noise). Typical construction equipment types (shown on Exhibit I.1-1 in the Draft L.A. CEQA Thresholds Guide, page I.1-8) emit a noise level from 76 to 91 dBA 50 feet away from the equipment. As shown on Exhibit M-1 in M.1 of the Draft EIR Appendix M, typical aircraft (Airbus 320 and Boeing 747 arrivals) average peak noise levels can range between 85 and 94 Lmax dBA (as measured at LAWA Noise Monitoring site LE2) from a further distance away from the receiver compared to construction equipment. Assuming equal distance between the source (construction equipment or aircraft), aircraft noise levels will typically be higher.

Construction equipment noise impacts typically take place within close proximity of a construction site. Aircraft noise impacts involve a larger area around an airport, because the level of noise emitted by the aircraft is higher than construction equipment and operates over a wider area. In Section 4.5.6.3 of the SAIP Draft EIR, specific information related to the SAIP construction site and staging area location, general scheduling and nature of construction activities is made available. Average annual day flight operation patterns are made available in Appendix M (Sections M.1.3 and M.1.5) of the Draft EIR. Noise-sensitive land uses south of the airport are evaluated for potential noise impacts due to the area's proximity to the construction site. As discussed in Section 4.5.6.3 of the SAIP Draft EIR, monitoring site ES2 is used as a measurement reference for areas in close proximity to the construction site. Based on the Project (2005) INM study calculation, aircraft CNEL levels at site ES2 are expected to be 67 CNEL with Runway 7R-25L closed. Construction equipment noise is expected to be 66 CNEL.

SAIP-PC00005 - 25

Comment: GP1-30. Las ciudades aledañas al aeropuerto, el área de Lennox, Inglewood, y Hawthorne, va a ser mas comercial que residencial, y esto es bueno. ¿Como ayudaría este proyecto para llegar a esta meta? SCG

The cities adjacent to the airport, the areas of Lennox, Inglewood and Hawthorne, are going to be more commercial than residential and this is good. How will this project help to get to this goal?

Response: This comment appears to be in reference to the conversion of incompatible land uses (such as residential) located within the Project (2005) 65 CNEL or greater area to more compatible land uses (such as a conversion to commercial use or compatible residential use via sound insulation). As presented in Section 4.5.6.1.2 of the SAIP Draft EIR, such incompatible uses (newly impact residential land uses located within the Project (2005) 65 CNEL or greater area) have been identified in the community of Lennox and the City of Inglewood. Due to the temporary and short-term nature of the aircraft noise impact, mitigation in the form of a conversion of incompatible to compatible land uses is considered an infeasible means to mitigate aircraft noise impacts associated with the SAIP.

The existing ANMP does involve the conversion of incompatible land use from aircraft noise to a compatible form pursuant to California Code of Regulations Title 21 Noise Standards. As illustrated in Exhibit 4.5-10 of the SAIP Draft EIR, a majority of residential uses identified as being newly impacted fall within the existing ANMP eligibility area. As discussed in Section 4.5 (subsection 4.5.5) of the Draft EIR, LAX Master Plan Mitigation Measure MM-LU-1 involves the revision and expansion of the ANMP program after the existing program is completed. This measure is associated with the implementation of the Master Plan, and is not expected to be implemented before SAIP construction is completed.

Please also see Topical Response TR-SAIP-GEN-3 for a discussion of the relationship between LAX Master Plan mitigation measures and the SAIP.

SAIP-PC00005 - 26

Comment: Chapter V.
5.4 Endangered and Threatened Species of Flora and Fauna:

GP1-31. ¿Cuales son las medidas de prevención para disminuir el efecto en la flor y fauna en peligro y amenazadas? SCG

What are the preventive measures to minimize the impacts on endangered or threatened animal and plant life?

Response: As described in the LAX Master Plan Final EIR Section 4.11, and reiterated in the SAIP Draft EIR, Section 5.4, there are no threatened or endangered plants within the proposed project area. Mitigation Measures MM-ET-1 and MM-ET-3, presented in the LAX Master Plan EIS/EIR, address the potential for significant construction impacts on habitat for the Riverside fairy shrimp and El Segundo blue butterfly, respectively. Furthermore, impacts to biotic communities, including two species designated as species of special concern by the California Department of Fish and Game, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and the loggerhead shrike (*Lanius ludovicianus*) were addressed in Section 4.6, Biotic Communities, of the SAIP Draft EIR. Significant impacts to these species and their associated habitat would be mitigated to less than significant through implementation of LAX Master Plan mitigation measures including conservation of state-designated sensitive habitat (MM-BC-1) and construction-related air quality measures (MM-AQ-2) described in subsection 4.6.5 of the SAIP Draft EIR. Additionally, habitat restoration activities and efforts to conserve faunal resources associated with the SAIP would be implemented through MM-BC (SA)-1 and MM-BC (SA)-2, respectively. These mitigation measures are presented in Section 4.6.8 of the SAIP Draft EIR and were derived from and achieve the same basic performance standards as LAX Master Plan Mitigation Measures MM-BC-8 and MM-BC-9. The SAIP Draft EIR states that implementation of the SAIP would not contribute to cumulative impacts as the recommended mitigation measures are adequate to reduce impacts to below a significant level.

SAIP-PC00005 - 27

Comment: Chapter V.
5.5 Wetlands:

GP1-32. ¿Qué métodos van a tomar para proteger los animales que habitan en esta área? SCG

What measure will you be taking to protect animals in their habitat in this area?

Response: As discussed in Section 5.5, Wetlands (Section 5.5.4), of the SAIP Draft EIR, the SAIP would not result in any direct impacts to wetlands. With implementation of construction avoidance measures, such as best management practices (BMPs), and the establishment of buffer areas as described in LAX Master Plan Mitigation Measure MM-ET-1 and specified in the April 20, 2004 Biological Opinion issued by the US Fish and Wildlife Service (USFWS) in support of the LAX Master Plan, included in Appendix F-E of the LAX Master Plan Final EIR, there would be no significant indirect impacts to wetlands containing cysts of the Riverside fairy shrimp from construction activities associated with the SAIP.

Salvage and storage of all Riverside fairy shrimp cyst-bearing soils were carried out in July and August 2005, pursuant to the April 20, 2004 Biological Opinion for the LAX Master Plan as well as the April 8, 2005 Biological Opinion for Operation and Maintenance Activities at LAX. Salvage activities were inspected by the USFWS (Carlsbad Fish and Wildlife Office), which is currently in the process of reviewing documentation regarding these activities prior to issuing a letter documenting compliance with the above mentioned Biological Opinions.

SAIP-PC00005 - 28

Comment: GP1-33. ¿Qué métodos van a usar para prevenir que los animales interfieran con las operaciones del aeropuerto? SCG

What measure are you going to use to prevent animals from interfering with the operations of the airport?

Response: Measures intended to minimize wildlife interference with on-going operations of LAX were addressed in Section 4.6, Biotic Communities, of the SAIP Draft EIR. Since June 1998, LAWA and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services, have entered into a Cooperative Service Agreement to conduct a wildlife hazard assessment to assist in the development of a Wildlife Hazards Management Plan (WHMP) and to provide operational wildlife control on the Airfield Operations Area. Pursuant to this effort, LAWA's Environmental Management Division has been working cooperatively with USDA APHIS Wildlife Services to maintain a wildlife biologist on site to monitor bird and other wildlife activity. Based on this cooperation, monthly wildlife monitoring reports are provided to LAWA by the USDA. These reports summarize monthly occurrences of wildlife hazards, particularly those associated with bird strikes, as well as the results of daily wildlife monitoring efforts in and around the AOA, in support of LAX's WHMP. Furthermore, as described in Section 4.6 of the SAIP Draft EIR, LAWA has ensured that mitigation measures MM-BC (SA)-1 and MM-BC (SA)-2, which involve habitat restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat, shall not serve as wildlife attractants, in accordance with the WHMP and applicable Federal Aviation Administration regulations.

SAIP-PC00005 - 29

Comment: Chapter V.
5.6 Energy Supply and Natural Resources:

GP1-34. ¿De donde vendrán los recursos naturales para este proyecto? SCG

Were would the natural resources be coming from for this project?

Response: As stated in Section 5.6.2 of the SAIP Draft EIR, the sources of natural resources (which could include mineral, lumber, petroleum/fuel, and aggregate resources) that would be used for the SAIP are the same as described in Sections 4.17, Energy Supply and Natural Resources, of the LAX Master Plan. Construction of the SAIP would require the consumption of petroleum resources in terms of fuel for construction-related equipment and vehicle trips. The source of this fuel would be from a variety of sources based on market conditions. Aggregate resources (i.e., sand, gravel) would be required for the SAIP, however, some of this material would be provided from demolition of the existing runway. The sources of aggregate reserves are from various production areas in the region, the closest is Sun Valley, approximately 20 miles east of LAX.

SAIP-PC00005 - 30

Comment: GP1-35. ¿Qué planes secundarios tienen en caso de escasez de petróleo? SCG

What alternative plans do you have in case there is a fuel shortage?

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

A shortage of fuel would be responded to by an increase in fuel prices based on market conditions. However, analyzing the availability of secondary fuel supplies would be speculative and therefore not required by CEQA (CEQA Guidelines 15145). As referenced in SAIP Draft EIR Section 5.6, Energy Supply and Natural Resources, and based on the analysis presented in the LAX Master Plan Final EIR, impacts associated with the consumption of fuel would be less than significant.

SAIP-PC00005 - 31

Comment: GP1-36. ¿Qué planes secundarios tienen en caso que falle la electricidad? SCG

What alternative plans do you have in case of power failure?

Response: The proposed SAIP project involves runway and taxiway improvements and does not pertain to energy usage. Notwithstanding, LAX has its own back-up generator system for use in the event of a power outage. The back-up generator system can supply the electricity needs of LAX, including runway lights.

SAIP-PC00005 - 32

Comment: GP1-37. ¿A causa de este proyecto van a subir los costos de servicios públicos? SCG

Will this project make the costs of public services go up?

Response: The cost of public services would not increase as a result of the SAIP because the SAIP construction activities would not increase the number of passengers or number of aircraft operations at LAX. Please also see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-PC00005 - 33

Comment: GP1-38. ¿En caso de un apagón, que medidas van a tomar? SCG

In case of a massive power failure what measure will be taken?

Response: The proposed SAIP involves runway and taxiway improvements and does not pertain to energy usage. Notwithstanding, LAX has its own back-up generator system for use in the event of a power failure. The back-up generator system can supply the power needs of LAX, including runway lights.

SAIP-PC00005 - 34

Comment: GP1-39. ¿El aeropuerto podría crear su propia energía? SCG

Can the airport create their own power source?

Response: The SAIP involves runway and taxiway improvements and would not specifically affect energy usage at LAX in the long-term. Most of the electric power for LAX is supplied by the City of Los Angeles Department of Water and Power and natural gas is supplied by the Southern California Gas Company. Additionally, LAWA operates a Central Utility Plant (CUP) which houses a co-generation system that generates electrical power. The CUP provides heating and air conditioning to the Central Terminal Area. LAX also has a back-up generator system that would be used in the case of a power outage.

SAIP-PC00005 - 35

Comment: Chapter V.
5.7 Solid Waste:

GP1-40. ¿Van a tirar elementos tóxicos? SCG

Will they be dumping toxic elements?

Response: No hazardous wastes will be disposed of at LAX. The SAIP Draft EIR addresses the SAIP's use and handling of hazardous materials in Section 5.10 and incorporates by reference supporting information from Section 4.23 of the LAX Master Plan Final EIR. As described in subsection 5.10.2 of the SAIP Draft EIR, some of the activities taking place at LAX generate hazardous waste that is temporarily accumulated on-site; most commonly this includes waste oil and fuel, used solvents, and used maintenance fluids generated by maintenance activities. As stated in Section 4.23 (subsection 4.23.3) of the LAX Master Plan Final EIR, these and other hazardous wastes generated at LAX are removed by licensed waste haulers and transported for treatment, disposal, or recycling at off-site facilities. As concluded in subsection 5.10.4.1 of the SAIP Draft EIR, these procedures would also be applicable for the handling of hazardous waste that may be generated during SAIP construction. Based on conclusions presented in subsection 4.23.6.5 of the LAX Master Plan Final EIR, it is anticipated that any incremental and temporary increase in hazardous waste generation compared to baseline conditions can be accommodated by existing treatment, storage, and disposal facilities.

SAIP-PC00005 - 36

Comment: GP1-41. ¿A donde se llevarán los desperdicios? SCG

Where will you taking wastes.

Response: The SAIP Draft EIR addresses solid waste in Section 5.7 with supporting information from Section 4.19 of the LAX Master Plan Final EIR incorporated by reference. As described in Section 4.19 (subsection 4.19.3) of the LAX Master Plan Final EIR, in the City of Los Angeles, solid waste is collected by municipal agencies and private refuse haulers, and disposed of at regional landfills. As required by Assembly Bill 939, LAWA participates in solid waste diversion programs, including an LAX on-site recycling program and participation in the city's diversion program. As stated in subsection 5.7.4.1 of the SAIP Draft EIR, under LAX Master Plan Commitment SW-2, Requirements for the Use of Recycled Materials During Construction, a minimum of 20 percent of recycled materials would be required for construction of the SAIP. Under LAX Master Plan Commitment SW-3, Requirements of Construction and Demolition Waste, the SAIP would require that a minimum of 20 percent of construction waste materials be recycled.

The SAIP Draft EIR addresses hazardous materials in Section 5.10 with relevant information from Section 4.23 of the LAX Master Plan Final EIR incorporated by reference. As stated in Section 4.23.3 of the LAX Master Plan Final EIR, hazardous waste generated at LAX is removed by

licensed waste haulers and transported for treatment, disposal, or recycling at off-site facilities. Hazardous wastes that can be recycled are, for the most part, sent to recycling facilities in the Los Angeles region. Wastes that cannot be recycled are sent off-site for treatment and disposal at incinerators and Class I landfills. Class I landfills can accept hazardous waste and are required to meet more stringent regulatory requirements than those that accept municipal solid waste. The facilities which can accept solid waste that is considered hazardous may be located out of state.

As concluded in Section 5.10.4.1 of the SAIP Draft EIR, the procedures discussed above will also be applicable for the handling of waste that may be generated during SAIP construction.

SAIP-PC00005 - 37

Comment: Chapter V.
5.8 Aesthetics:

GP1-42. ¿Que la apariencia de la aeropista deje una buena impresión al turismo y que seamos los mejores! SCG

That the runway give a good impression on tourists and for us to be the best!

Response: Comment noted. As referenced in Section 5.8.4 of the SAIP Draft EIR, LAX Master Plan Commitment DA-1 and Mitigation Measure MM-DA-1 would be incorporated at part of the SAIP to address visual impacts. Under LAX Master Plan Commitment DA-1, Provide and Maintain Airport Buffer Areas, LAWA will provide and maintain landscaped buffer areas along the southern boundary to better screen views of airport facilities from adjacent uses. Under Mitigation MM-DA-1, construction fencing and pedestrian canopies would be installed to ensure maximum screening of areas under construction along Sepulveda Boulevard.

SAIP-PC00005 - 38

Comment: Chapter V.
5.9 Earth and Geology:

GP1-43. Esta bien que construyan en este lugar porque no ocupa otro territorio. SCG

It's good that construction is in this site, because you do not need another land.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00005 - 39

Comment: Chapter V.
5.10 Hazards and Hazardous Materials:

GP1-44. Que garanticen o aseguren que las sustancias peligrosas no se transportan a las áreas residenciales, cerca de las escuelas, hospitales o durante el periodo de mayor congestionamiento. SCG

That they guarantee or make sure that dangerous substances don't get transported through residential areas, near schools or hospitals or during peak traffic hours.

GP1-45. ¿Qué seguridad acompañará el transporte de estas sustancias o de estos materiales peligrosos? SCG

What kind of security will accompany the transportation of these substances or dangerous materials?

GP1-46. ¿Qué métodos se usaran para asegurar que materiales peligrosos no contaminen durante el transporte? SCG

What measures will you taking so that dangerous materials do not pollute during their transportation?

Response: As stated in Section 5.10, (subsection 5.10.4.1), transportation of hazardous materials associated with the SAIP would be addressed through regulations and other measures presented in the LAX Master Plan Final EIR. The transportation of hazardous materials is regulated under the Hazardous Material Transportation Act of 1994, which requires the labeling of hazardous materials, training of transport personnel, and incident reporting. LAX Master Plan Commitment HM-2, Handling of Contaminated Materials Encountered During Construction, would require LAWA to develop a program to ensure that all contaminated soils and/or groundwater encountered during SAIP construction activities are handled in accordance with all applicable regulations and that appropriate regulatory agencies are notified. Master Plan Commitment C-1, Establishment of a Ground Transportation/Construction Coordination Office and ST-22, Designated Truck Routes (Alternative D), would ensure that routes for the transportation of hazardous materials would be coordinated with other agencies, as necessary, and that such transportation routes would avoid to the extent feasible residential streets and other sensitive areas to the extent feasible. Implementation of these measures would provide for adequate security measures and minimize the potential for contamination from the transportation of hazardous materials.

Consistent with the requirements set forth in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP), construction truck deliveries and construction employee shifts shall be scheduled by the SAIP construction contractor to avoid the peak periods of 7:00 to 9:00 a.m. and 4:30 to 6:30 p.m. Furthermore, designated truck routes will be specified and made enforceable by contract and are comprised of freeways and non-residential streets. Designated truck routes are comprised of Pershing Drive between World Way West and Imperial Highway, Imperial Highway between Pershing Drive and I-105, I-105, and I-405. Adherence to the designated truck routes is enforceable through the construction contracts.

Please also see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation and Monitoring Program (MMRP) commitments pertaining to traffic, and compliance and enforcement provisions to help ensure that SAIP contractors comply with traffic-related contract requirements.

SAIP-PC00005 - 40

Comment: Chapter V.
5.11 Public Utilities:

GP1-47. ¿Qué efectos tendría esta construcción sobre las líneas o sistemas de distribución de los servicios públicos sobre otras ciudades? SCG

What impacts will this construction have over lines or distribution systems of public utilities over other cities?

Response: Although the relocation of Runway 7R-25L would require the replacement of existing water lines and wastewater collection systems, as stated in Section 5.11.3.3 of the SAIP Draft EIR, with the implementation of LAX Master Plan Commitment PU-1, Develop a Utility Relocation Program, any temporary disruption in service would be less than significant. LAX Master Plan Commitment PU-1 would require that LAWA develop and implement a utilities relocation program to address SAIP construction activities. This program would require LAWA to prepare a construction evaluation prior to SAIP construction activities to determine the extent that the proposed construction would interfere with existing utility location or operation. This program would also require LAWA to develop a plan for relocating existing utilities as necessary before, during, and after construction of the SAIP.

SAIP-PC00005 - 41

Comment: GP1-48. ¿Podría haber una escasez de agua que impacte negativamente la construcción del aeródromo? SCG

Could there be a water shortage that can adversely impact the construction area?

GP1-49. ¿Si hay una escasez de agua, quien va a tener prioridad, la comunidad o el proyecto? SCG

If there is a water shortage who would have first priority, the community or the airport?

GP1-50. ¿Van a tener otra línea del agua durante la reconstrucción del túnel de Sepúlveda? SCG

Will there be another water line during construction on the Sepulveda tunnel?

GP1-51. Se necesita tener otra fuente de agua por si esta se llegara a afectar. SCG

It is necessary to have another source of water in case this one became affected?

GP1-52. No queremos que falte agua para la comunidad ni para el proyecto. SCG

We do not want to have a water shortage neither for the community nor for the Project.

Response: As referenced in Section 5.11 (subsection 5.11.3.3) of the SAIP Draft EIR, adequate water supply would be available for the construction of the SAIP. In addition, as stated in Section 4.25.1 (subsection 4.25.1.6.5) of the LAX Master Plan Final EIR, there is adequate water supply to meet city demand through 2015. Should there be an unforeseen circumstance that creates a regional shortage of water supply, water distribution would be determined by the City of Los Angeles Department of Water and Power. However, this circumstance would be considered speculative and therefore not required by CEQA (CEQA Guideline 15145). Nevertheless, in accordance with LAX Master Plan Commitment W-1, Maximize Use of Reclaimed Water, reclaimed water would also be used to the maximum extent feasible for dust suppression which would act to minimize water usage for the SAIP.

As described in Section 2.4 (subsection 2.4.2) of the SAIP Draft EIR and Response to Comment SAIP-PC00005-15, the relocation of Runway 25L and construction of the Center Taxiway would require the strengthening of the bridge above Sepulveda Boulevard, rather than construction of a tunnel on Sepulveda, as stated by the commentor. All construction of the strengthening will be performed on the surface of the bridge. Therefore, this SAIP component would not affect existing water lines.

SAIP-PC00005 - 42

Comment: GP1-53. ¿Qué alternativas a la construcción existen por si una de las líneas que controla otra ciudad u otra agencia se llegara a dañar? SCG

What alternatives to construction are there, in case a line controlled by another city or agency would be damaged?

Response: As described in Response to Comment SAIP-PC00005-40, any potential temporary disruption to service would be minimized with the incorporation of Master Plan Commitment PU-1, Develop a Utility Relocation Program.

SAIP-PC00005 - 43

Comment: Chapter V.
5.12 Public Services:

GP1-54. Necesitamos una mejor distribución de policía durante la construcción (como durante los <red alerts>) para reducir el tiempo de respuesta. SCG

We need a better police deployment during construction, (like when we had "red alerts") to reduce the police response time.

Response: As stated in Section 5.12.4.1 of the SAIP Draft EIR, adequate emergency response times during SAIP construction would be maintained with implementation of LAX Master Plan Commitments C-1, Establishment of a Ground Transportation/Construction Coordination Office; ST-9, Construction Deliveries; ST-12, Designated Truck Delivery Hours; ST-14, Construction Employee Shift Hours; ST-16, Designated Haul Routes; ST-17, Maintenance of Haul Routes; ST-18, Construction Traffic Management Plan; ST-21, Construction Employee Parking Locations; and ST-22, Designated Truck Routes. These measures would ensure coordination and planning with law enforcement to reduce effects from SAIP construction on traffic, emergency access, and response times.

SAIP-PC00005 - 44

Comment: GP1-55. ¿Como puede mejorar la policía los problemas de drogadicción y prostitución en la vecindad del aeropuerto---especialmente Century Boulevard y también Imperial Highway? (Dueño de negocio y miembro de comunidad). SCG

How can the police improve on the problem of drugs and prostitution in the airport vicinity, especially on Century Boulevard and Imperial Highway? (Business owners and members of the community.)

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00005 - 45

Comment: Chapter V.
5.13 Schools:

GP1-56. Que el programa asegure que las medidas de mitigación para el ruido de las escuelas se hayan terminado antes de que comience la construcción. SCG

That the program guarantees that mitigation measure for noise at the schools has been completed before the start of constructions.

Response: As stated in Section 4.5.6.4 of the SAIP Draft EIR, there would be significant short-term aircraft noise impacts, primarily due to the closure of Runway 7R-25L. As stated in Section 4.5.8.1.2, LAX Master Plan Mitigation Measures MM-LU-1 and MM-LU-4, which were intended to install sound insulation in noise-sensitive facilities, involve high costs and long-term implementation and are not considered to be a feasible measures to mitigate the impacts of the short-term aircraft noise impacts associated with SAIP. Several noise-sensitive facilities, including schools, that are impacted by aircraft noise during SAIP construction may be eligible under existing Aircraft Noise Mitigation Program (ANMP) criteria, and may potentially be insulated before or during the construction period, but not all schools will be insulated from the noise impacts of the SAIP prior to commencement of construction as the commentor requests.

SAIP-PC00005 - 46

Comment: GP1-57. Procurar que la construcción de mayor intensidad se lleve acabo durante el descanso escolar del verano. SCG

Try to accomplish the most intense construction during the school's summer vacation.

Response: As discussed in Section 2.4.4 of the SAIP Draft EIR, construction phasing and scheduling took into account safety and continual operation of the airport. The airport is a 24-hour facility with limited capacity and any disruption would have a significant detrimental effect on air transportation service in the region and nationally. Three distinct phasing/scheduling options were evaluated in order to determine the most feasible construction option. The proposed construction schedule stated in Section 2.4.5 of the SAIP Draft EIR was selected due to safety, efficiency, airport operation performance, and environmental factors. The proposed schedule provides the shortest time frame to complete the project without significantly compromising safety and efficiency. The shorter schedule also provides a means to reduce the time frame required to close Runway 7R-25L, which is the primary cause for the short-term aircraft noise impacts during the construction period. The proposed schedule calls for continuous construction during an eight-month period. Each phase of the construction project involves a series of heavy construction throughout the construction period in order to complete the construction within the proposed schedule. Because of all of these factors, it would be impossible to limit construction to the summer months as requested by the commentor.

SAIP-PC00005 - 47

Comment: GP1-58. ¿Qué otras tecnologías existen para disminuir el ruido en las escuelas aparte de cambiar las ventanas? SCG

What other technology is there to reduce noise in the schools, besides changing the windows?

Response: Topical Response TR-N-4 of the LAX Master Plan Final EIR describes the approach to noise mitigation that was used in the LAX Master Plan Draft EIS/EIR and expanded in the LAX Master Plan Supplement to the Draft EIS/EIR. As indicated under Subtopical Response TR-N-4.1 of the LAX Master Plan Final EIR, portions of Appendix D and Section 4.1 of the LAX Master Plan Draft EIS/EIR addressed a wide variety of different potential noise mitigation actions. The LAX Master Plan Final EIR found many of these potential actions to be ineffective in abating noise or reducing the impacts of noise.

As discussed in Sections 4.1 and 4.2 in the LAX Master Plan Final EIR, the most effective technology to reduce interior noise levels in classrooms is by providing sound insulation under the Aircraft Noise Mitigation Program (ANMP). In addition to double-paned windows, sound insulation may also be provided by such measures as sound reduction doors and roofing upgrades. As described under Mitigation Measure MM-LU-1, Implement Revised Aircraft Noise Mitigation Program, of the LAX Master Plan Mitigation Monitoring Program (MMRP) and the Community Benefits Agreement, in lieu of sound insulation, schools exposed to high noise levels may also be relocated under the ANMP. As described in Topical Response TR-N-4 in the LAX Master Plan Final EIR, other technologies to minimize exterior noise levels were also evaluated for the LAX Master Plan, including restrictions on aircraft flight activity and use of berms or barriers. However, sound insulation mitigation measures were determined to be the most effective and practical way of minimizing noise impacts on classrooms.

SAIP-PC00006 Acherman, Robert LAX Master Plan Stakeholder 9/10/2005
Committee - Group 2

SAIP-PC00006 - 1

Comment: General Comments:

GP 2-1. POOR READABILITY
Not user friendly.
Too many acronyms used with deficient referencing.

Response: LAWA has made a good faith effort to prepare the SAIP Draft EIR in plain language that makes it accessible to the layperson, despite the highly complicated nature of the technical topics being

considered. To help facilitate ease in reading, the SAIP Draft EIR includes an Executive Summary that presents the key findings of the more detailed analysis, and compares the impacts of each alternative. Additionally, the SAIP Draft EIR makes extensive use of summaries and explanatory charts and diagrams so that it can be useful and understandable to the reader. Acronyms, where used, are explained. Additionally, a list of acronyms and their meanings is located at pages VI-29 - VI-32 of the SAIP Draft EIR.

Please also see Response to Comment SAIP-PC00007-7 regarding document adequacy.

SAIP-PC00006 - 2

Comment: Referenced documents not provided. Should have footnotes with pertinent information.

Response: CEQA Guideline 15150 specifically allows an EIR or a Negative Declaration to incorporate by reference another document which is a matter of public record or is generally available to the public. Referenced documents are provided for the public as a part of the SAIP Draft EIR reference library. The SAIP Draft EIR and Master Plan reference library is located at:

Karen Hoo
LAWA Administration Building
Environmental Planning
7301 World Way West, 3rd floor
Los Angeles, CA 90045
(310) 646-3853

The SAIP Draft EIR contains numerous footnotes with references to assist the reader.

SAIP-PC00006 - 3

Comment: Too many assumptions. Someone's expectation should not determine whether or not something is worthy of evaluation. CG

Response: Due to the nature of the resources studied for this SAIP Draft EIR, certain assumptions were necessary. These assumptions, including estimation of future impacts, are based upon the best available information and are explained in the SAIP Draft EIR. CEQA expressly permits and supports the use of reasonable assumptions based on evidence and the experience of experts, including agency staff, in preparing EIRs.

SAIP-PC00006 - 4

Comment: GP 2-2. (P. I-9, 1.3.3.1.2) Statements made are often incorrect. : "Although lead (Pb) is a criteria pollutant, it was not evaluated in this EIR, because the construction of the SAIP and ongoing airport operations are expected to have a negligible impact on lead emissions in the South Coast Air Basin." CG

Response: The statement made in Section 1.3 (subsection 1.3.3.1.2) and recited by the commentor regarding lead emissions is correct. Construction activities related to the SAIP are expected to generate negligible quantities of lead emissions since construction equipment and vehicles that will be utilized will be powered with diesel fuel or unleaded gasoline.

The combustion of leaded aviation gasoline in piston-engine aircraft can be a source of lead emissions at airports; however, piston-engine aircraft operations at LAX are very infrequent and day-to-day operations at LAX during the construction of the SAIP would generate negligible quantities of lead emissions.

Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. The aircraft fleet mix and the number of piston-engine aircraft operations performed at LAX and the associated airborne lead emissions would not change as a result of the construction of the SAIP. The same number of piston-engine aircraft operations would be performed at LAX whether the SAIP is constructed or not.

SAIP-PC00006 - 5

Comment: GP 2-3. The EIR fails to evaluate in any detail, the impacts from rerouting air patterns on three (3) already over-used runways. Merely referencing that noise contours may change fails to discharge environmental evaluation obligations. CG

Response: The comment understates the SAIP Draft EIR's detailed evaluation of the significance of aircraft noise impacts due to temporary closure of runway 7R-25L during construction of the SAIP, and the consequent temporary re-routing of flights to the airport's remaining runways. As discussed in Section 4.5, the SAIP Draft EIR provides detailed evaluation of all potential types of aircraft noise impacts due to construction-related changes to aircraft flight patterns by comparing noise conditions anticipated during project construction with environmental baseline conditions derived from the full 2003 airport operations dataset, and applying to the results of that comparison established standards of significance or, where such established standards do not exist, standards developed by LAWA for evaluation of the aircraft noise impacts of this project on the basis of substantial evidence disclosed in Section 4.1 and Appendix S-C1 of the LAX Master Plan EIS/EIR.

As stated in Section 4.5.6.1.2 of the SAIP Draft EIR, the Project (2005) aircraft noise evaluation is based on a detailed analysis documented in Appendix SC-1 of the LAX Master Plan Final EIR and Appendix D and E of the Final LAX Master Plan. Operational assumptions are modeled using the FAA's Airport and Airspace Simulation Model (SIMMOD). Results from this model, which served as the basis for noise modeling input for Project (2005) conditions, are documented in Appendix E of the Final LAX Master Plan. Specifics related to Project (2005) forecasted operation levels, runway use, flight track definitions and flight track utilization are provided in Appendix M of the SAIP Draft EIR. Under Title 14, Code of Federal Regulations (CFR), Part 150 (also referenced in this section as Federal Aviation Regulation (FAR) Part 150) and as shown in M-7a of Appendix M, sensitive land uses (including residential, schools, churches, hospitals, and selected outdoor recreational uses such as amphitheatres) may be incompatible with certain aircraft noise levels (expressed as Day Night Average Sound Level (DNL)). These same guidelines apply to the Community Noise Equivalent Level (CNEL) used for airport noise evaluations in California. Under the standards of significance described in Section 4.5.4 (subsection 4.5.4.1) of the SAIP Draft EIR, which are based on the California Airports Noise Standards (Title 21) and FAA Order 5050.4A and FAA Order 1050.1E, a significant aircraft noise impact would occur when a sensitive land use would be newly exposed to 65 CNEL or greater, or would have habitable exterior areas newly exposed to 75 CNEL or greater, or would be within the existing 65 CNEL contour and would be newly exposed to an increase of 1.5 CNEL or greater, compared to baseline conditions. Under Title 21 of the California Code of Regulations, such uses (with the exception of uses with habitable exterior areas newly exposed to 75 CNEL or greater) may nonetheless be rendered compatible if their interior noise levels can be reduced to a maximum of 45 CNEL. (Please see Table M-7b, California Incompatible Land Use Guidelines in Aircraft Noise Impact Areas, of Appendix M). The results of the comparison between Project (2005) and 2003 Baseline conditions are shown in Section 4.5 (subsection 4.5.6.1.2) of the SAIP Draft EIR. The analysis concludes that Project (2005) conditions would result in significant impacts.

The City of Los Angeles, following federal guidance set forth by the Federal Interagency Committee on Noise (FICON) criteria, requires LAWA to disclose to the public, for informational purposes, whether noise-sensitive uses within the airport's 60 to 65 CNEL contour would experience a project-related aircraft noise increase of 3 CNEL or greater when there are 1.5 CNEL increases within the area exposed to 65 CNEL and higher. This supplemental information regarding changes in exposure in areas exposed to aircraft noise less than 65 CNEL does not imply that there is a significant impact, but is provided to the public and decision-makers for informational purposes. Further, the FAA's Air Traffic Division has set in place a rule that if an air traffic action results in an increase of 5 CNEL in the area exposed to 45 CNEL or more, and that if substantial changes are present in the location or loadings on flight tracks, then notice should be made of these cases. Increases in CNEL levels below 65 CNEL are discussed in Section 4.5 (subsection 4.5.6.1.2).

To further address single event impacts, the Draft EIR includes an analysis in Section 4.5 (subsection 4.5.6.1.4) of nighttime single event sleep disturbance impacts and daytime speech disruption impacts on schools that extend into areas outside the 65 CNEL contour. The results indicate that there would be a significant impact associated with Project (2005) conditions.

Please see also Topical Response TR-SAIP-N-1 regarding off-airport noise impacts.

SAIP-PC00006 - 6

Comment: GP 2-4. Because this EIR is "tiered", the justifications referenced from the main document must be specifically identified. CG

Response: Comment noted. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00006 - 7

Comment: GP 2-5. How will the stakeholder process be able to influence the SAIP if, in fact, the contracts have already been signed? CG

Response: As of this time, only contracts related to design and permitting of the SAIP have been entered into by LAX. These agreements were necessary steps for the completion of this Final EIR. Construction contracts have not been executed and will not be completed until the Los Angeles City Council certifies the Final EIR, makes written findings, and adopts a statement of overriding considerations, if necessary.

Ensuring participation by members of the public is key to implementing the LAX Master Plan and certain provisions of the Master Plan and other agreements require public outreach. All participation by stakeholders has been taken into account in the development of the SAIP Draft EIR. Stakeholder comments and responses thereto are included in this Final EIR.

SAIP-PC00006 - 8

Comment: GP 2-6. How can a contractor bid on a job if the scope has not been set?

Response: The scope of the SAIP has been set and all bid documents clearly define the scope. All contracts that LAWA has awarded to outside contractors are entirely at risk and contain no guarantees of performance. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00006 - 9

Comment: GP 2-7. This EIR should have addressed the long range impacts of the project on the affected communities. CG

Response: This Final EIR is tiered from the LAX Master Plan Final EIR and as such, is not required to provide analysis on impacts already discussed in that document. The only long-range impact that will result from the SAIP is a shift in the noise contour 55 feet to the south. This shift in the noise contour is consistent with relocation of the runway. Please see Chapter 4, Section 4.1.6.1.5 of the LAX Master Plan EIR for a discussion on this impact. The LAX Master Plan Final EIR also addressed long-term (i.e., operational) impacts of the project on hydrology and water quality based on project-specific information relating to post-construction drainage conditions that was not available at the time the LAX Master Plan Final EIR was prepared.

Please also see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00006 - 10

Comment: GP 2-8. Why doesn't the EIR address noise impacts north of the Airport up to Santa Monica city limits? CG

Response: Federal Interagency Committee on Noise (FICON) criteria adopted by the State of California requires LAWA to disclose to the public, for informational purposes, whether noise-sensitive uses within the airport's 60 to 65 CNEL contour would experience a project-related aircraft noise increase of 3 CNEL or greater when there are 1.5 CNEL increases within the area exposed to 65 CNEL and higher. For this reason the SAIP study area includes off-airport areas, including areas beyond the immediate LAX vicinity, containing residential and noise-sensitive uses that would potentially be exposed to project-related aircraft noise levels of 65 CNEL or greater. As illustrated in Figure E-9 of Appendix E of the Final LAX Master Plan, LAX traffic over Santa Monica is primarily arrivals from the northwest under west flow conditions and arrivals from the east during east flow (Figure E-10 of Appendix E of the Final LAX Master Plan) at or above 8,000 ft. Noise levels detected on the ground from arrivals at 8,000 ft. do not create levels high enough on an average annual day to cause a 65 CNEL impact. This is due to the low thrust settings (the primary noise source from aircraft) utilized by arrivals during the decent and the amount of distance between the receiver on the ground and the aircraft, which significantly attenuates (lowers) noise levels due to the large distance.

The focus of the SAIP Draft EIR noise analysis is to assess noise impacts associated with changes in runway use patterns while Runway 7R-25L is closed. The FAA's Air Traffic Division has also set in place a rule that if an air traffic action results in an increase of 5 CNEL in the area exposed to 45 CNEL or more, and that if substantial changes are present in the location or loadings on flight tracks, then notice should be made of these cases. As stated in Appendix E (subsection E.1.4.2) of the Final LAX Master Plan, air traffic routes for Project (2005) conditions will be the same as No Action/No Project conditions. In addition, current consultation with the FAA as documented in Appendix C (Section 3) of the Draft EIR states that the closure of Runway 7R-25L will not result in any procedural changes for routing aircraft to/from LAX, including those routes over Santa Monica. Based on this information, no changes in existing noise levels are expected to substantially change.

SAIP-PC00006 - 11

Comment: GP 2-9. From where are additional change-order funds coming? CG

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00006 - 12

Comment: GP 2-10. Throughout EIR, the terms "significant" and "unavoidable" or, "unknown" are used. At what point does "unavoidable" become unacceptable? CG

Response: As explained in Responses to Comments AL00033-333 and PC02217-7 in the LAX Master Plan Final EIR, under CEQA, a project can be approved despite significant, unavoidable impacts. If a project would result in one or more significant effects on the environment that cannot be avoided or substantially lessened if the project is approved or carried out, the agency must prepare a written statement of overriding considerations. Specific economic, legal, social, technological or other project benefits are all potential bases for a statement of overriding considerations. See Pub. Res. Code § 21081(b); 14. Cal. Code Regs § 15093(a). Accordingly, projects are regularly approved on the basis of policy considerations despite unmitigated environmental effects. See, e.g., *San Francisco Ecology Center v. City & County of San Francisco*, 48 Cal. App. 3d 584, 596-97 (1975)(goals of making international airport more convenient, safe, efficient, and quiet were valid overriding considerations). The final decision to adopt a statement of overriding considerations and accept potentially significant and unavoidable impacts is made by the decision-maker in determining whether to approve the project. That decision is not the province of the EIR. The EIR is an informational document only.

See also Response to Comment SAIP-PC00006-16.

SAIP-PC00006 - 13

Comment: GP 2-11. There must be a discussion of alternative solutions to runway incursions (better radio communications, minimizing of human error, more visible hold & stop bars) CG

Response: Please see Topical Responses TR-SAIP-PD-1 regarding the purpose and need of the SAIP and TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Please also see Responses to Comments SAIP-PC00007-9 and SAIP-AL00005-52 through SAIP-AL00005-61.

SAIP-PC00006 - 14

Comment: GP 2-12. What avenue can the community and individuals take to reply to the EIR's responses to their comments? CG

Response: The content of this comment is similar to comment SAIP-PC00007-6; please refer to Response to Comment SAIP-PC00007-6. Please also see the Introduction to these Responses to Comments for a further explanation of this process.

SAIP-PC00006 - 15

Comment: GP 2-13. Aircraft fuel dumping was not addressed in the EIR. CG

Response: Aircraft fuel dumping was addressed in the LAX Master Plan Final EIR (see Topical Response TR-AQ-1 in the LAX Master Plan Final EIR). As explained in that topical response, and summarized below, fuel dumping is a rare occurrence and would not result in significant environmental impacts. For this reason, fuel dumping was not addressed in the SAIP Draft EIR, the focus of which was on impacts that may not have been fully addressed in the LAX Master Plan Final EIR (please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR).

As explained in Topical Response TR-AQ-1 in the LAX Master Plan Final EIR, fuel dumping from aircraft (either while on the ground or airborne) is not allowed at LAX or any U.S. airport, except for emergency situations. There are important regulatory, economic, safety and environmental reasons for this.

For example, FAA regulations prohibit the dumping of fuel from certificated aircraft. (Please see 14 CFR Part 34 and FAA Advisory Circular 34-1B regarding fuel venting regulations). FAA has promulgated strict guidelines on the location, route, and altitude should fuel dumping become necessary. These precautions are designed to avoid or minimize hazardous conditions in the air and on the ground as well as the potential environmental impact. Additionally, the cost for fuel is one of the largest expenses for airlines and cargo carriers. Therefore, fuel conservation is an important and significant cost-saving measure.

In summary, fuel dumping is extremely rare and only occurs in emergency situations to reduce the landing weight and the risk of fire for the distressed aircraft. Whenever possible, it is done at higher altitudes (i.e., greater than 5,000 feet above ground level) and over the ocean so the fuel can evaporate or disperse before reaching ground level.

Often, the white vapor trails emanating from the wing tips of landing aircraft are mistaken for fuel venting. These trails are actually the runoff of water vapor that has condensed on the wings as the colder aircraft descends into the warmer, more humid atmosphere.

Finally, it should be noted that, as discussed in Topical Response TR-SAIP-PD-3, the SAIP would not change the number of operations in the long-term, thus any fuel dumping would be the same with or without the SAIP.

SAIP-PC00006 - 16

Comment: GP 2-14. Once there is a finding of a significant and/or unavoidable impact, the project should not proceed. CG

Response: As explained in Responses to Comments AL00033-333 and PC02217-7 in the LAX Master Plan Final EIR, under CEQA, a project can be approved despite significant, unavoidable impacts. If a project would result in one or more significant effects on the environment that cannot be avoided or substantially lessened if the project is approved or carried out, the agency must prepare a written statement of overriding considerations. Specific economic, legal, social, technological, or other project benefits are all potential bases for a statement of overriding considerations. See Pub. Res. Code § 21081(b); 14. Cal. Code Regs § 15093(a). Accordingly, projects are regularly approved on the basis of policy considerations despite unmitigated environmental effects. See, e.g., *San Francisco Ecology Center v. City & County of San Francisco*, 48 Cal. App. 3d 584, 596-97 (1975)(goals of making international airport more convenient, safe, efficient, and quiet were valid overriding considerations). The final decision to adopt a statement of overriding considerations and accept potentially significant and unavoidable impacts is made by the decision-maker in determining whether to approve the project. That decision is not the province of the EIR. The EIR is an informational document only.

See also Response to Comment SAIP-PC00006-12.

SAIP-PC00006 - 17

Comment: GP 2-15. The SAIP does not further the objectives of a more regional solution. CG

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00006 - 18

Comment: GP 2-16. This document does not fulfill LAWA's responsibility to analyze the full and true impacts of the SAIP. It is reasonable to assume that a program smaller than, and different from, Alt D will be implemented by the sponsor. If we assume that the SAIP is not only the first, but the only Master Plan project to be implemented, there is a complete absence in the environmental documentation of the long term impacts from this project in isolation. CG

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. Please also see Response to Comment SAIP-AL00005-35.

SAIP-PC00006 - 19

Comment: GP 2-17. Post-construction noise and environmental exposure in this EIR assumes completion of all Alt D. There are specific impacts related to this project that assume aircraft mix and other factors that could change. CG

Response: Please refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP and Topical Response TR-SAIP-HRA-1 regarding human health risks and mitigation for human health impacts. Please also see Response to Comment SAIP-AL00005-35.

SAIP-PC00006 - 20

Comment: GP 2-18. The EIR should more specifically describe the aircraft taxi traffic flow during and post-construction. CG

Response: The SAIP Draft EIR addresses aircraft taxi traffic flow during construction of the SAIP on page II-14, Section 2.4.4, Construction Phasing Options. The Draft EIR addresses aircraft taxi traffic flow after construction of the SAIP on page II-9, Section 2.3.4, Interim Operational Plan Analysis. The Draft EIR for the SAIP, Appendix C, Interim Operations Plan Analysis Existing and Future Runway Operations, also provides information on runway and taxiway use after construction of the SAIP.

SAIP-PC00006 - 21

Comment: GP 2-19. With imminent oil crises, what plans for sustainable designs are being addressed in airport construction, and airline operation? CG

Response: As described in Section 2.4 (subsection 2.4.2) of the SAIP Draft EIR, the SAIP consists of runway and taxiway improvements that are subject to FAA design standards. Because energy consumption associated with the SAIP construction activities would be a temporary and incremental increase above current conditions and would not involve new structures, the application of sustainable designs was not evaluated in the SAIP Draft EIR. Notwithstanding, implementation of the SAIP will provide for improvements in aircraft movements on the South Airfield, which will reduce aircraft time in taxi/idle mode and, in turn, reduce fuel consumption.

In addition, the Community Benefits Agreement and Master Plan Commitment E-1, Energy Conservation and Efficiency Program, include provisions for sustainable design and energy conservation to be incorporated into the overall development of the LAX Master Plan.

SAIP-PC00006 - 22

Comment: GP 2-20. I agree that the report is a disciplined analysis, although still not complete. LAWA is not operating efficiently to benefit local, regional, and state environments. CG

GP 2-21. LAWA is not compatible with the demands for protecting surrounding communities. CG

GP 2-22. Los Angeles will need the highways to mitigate neighborhood traffic impacts. CG

GP 2-23. LAWA's goal should be to balance between LAX operations and environmental, social, and land use issues. This has not been addressed in this current EIR. CG

Response: LAWA appreciates the comment that the "report is a disciplined analysis." The purpose of an EIR is to identify the potentially significant effects of a project on the environment, to identify alternatives to the project and measures that may mitigate or avoid those potentially significant impacts. Pub. Res. Code § 21002.1. Of the alternatives studied in the Master Plan Final EIR/EIS, Alternative D was selected over Alternatives A, B, and C because in terms of safety and environmental impacts it was best suited to meeting project objectives. The SAIP is a component of the implementation of Alternative D.

New highways will not be necessary to mitigate impacts to traffic resulting from the SAIP. The only significant traffic impact will be short term in nature and will not justify construction of any new roadways.

SAIP-PC00006 - 23

Comment: GP 2-24. In light of the fact that 2/3 of the residents impacted, (according to Table 4.5-17) of which roughly 65% are Hispanic, it is unfortunate LAWA chose not to publish the SAIP in language specific to the Spanish speaking population. Only recently, has translation been made available to those attending meetings. CG

Response: Comment noted. Production, publication, and distribution of the SAIP Draft EIR was conducted in accordance with CEQA requirements. Public notices were published in Spanish in Spanish language newspapers, and the service of a Spanish translator and bilingual staff were available to participants at the Semi-Annual Stakeholder Forum and the General Assembly of LAX Master Plan Committee Members.

As explained in Response to Comment PC02236-15 in the LAX Master Plan Final EIR, under Section 4.4.3.7 of the LAX Master Plan Final EIR, LAWA developed an Environmental Justice program in accordance with Executive Order 12898 and California law. This program was created to facilitate open communication between LAWA and local minority and low-income communities affected by activity at LAX. Subsequent to the release of the Draft Master Plan EIS/EIR, LAWA held a series of community workshops in the communities of Inglewood, Lennox, and South Los Angeles. The workshops were widely noticed to residents within a 10-mile radius of each meeting site through newspapers, posted notices, and door-to-door distribution. Approximately 1,500 letters of invitation to the workshops were also mailed to organizations and leaders in the affected communities.

The format of the workshops included a number of stations staffed by LAWA employees and/or technical consultants where graphic illustrations and/or written materials were provided to inform attendees about the concept of environmental justice and potential environmental impacts associated with the proposed LAX Master Plan alternatives. Materials were provided in both English and Spanish and Spanish translators (including bi-lingual LAWA staff), assisted at each workshop.

SAIP-PC00006 - 24

Comment: GP 2-25. The separation of Committee Groups by language flies in the face of Brown vs. Board of Education. There is no guarantee that the exact same information was disclosed, which would impact responses. CG

Response: LAWA and its consultants have remained diligent to ensure that accurate and necessary information has been provided to all members of the public. Separation of groups by language is necessary to facilitate a productive discussion and to provide the opportunity to non-English speakers to discuss and comment on the SAIP Draft EIR. No persons were excluded or forcefully separated. Rather, the opportunity for speakers of various languages to discuss the EIR in the language with which they are most comfortable was afforded.

SAIP-PC00006 - 25

Comment: GP 2-26. When planning this project, concern should be more for human life rather than mechanical devices. CG

Response: The purpose of an EIR is to identify the potentially significant effects of a project on the environment, to identify alternatives to the project and measures that may mitigate or avoid those potentially significant impacts. Pub. Res. Code § 21002.1. Of the alternatives studied in the Master Plan Final EIR/EIS, Alternative D was selected over Alternatives A, B, and C because in terms of safety and environmental impacts it was best suited to meeting project objectives. The SAIP is a component of the implementation of Alternative D. The policy decision regarding airport improvements and any potential impacts to health resulting from the project as identified in the EIR lies with the decision-maker and is not the province of the EIR itself. The EIR is an informational document only.

The health risk impacts of the SAIP were examined in Section 4.4 of the SAIP Draft EIR. Please also see Topical Response TR-SAIP-HRA-1 for a general discussion of the health risk assessment and mitigation for potential health risk impacts.

SAIP-PC00006 - 26

Comment: Chapter I.
Introduction:

GP 2-27. Who has authority to evaluate, propose, implement additional mitigation measures? And, will the Committees' comments be incorporated? CG

Response: Pursuant to CEQA Section 21081(a)(1), the lead agency in control of a project is responsible for requiring any mitigation measures that may be necessary to substantially lessen or avoid any significant impacts to the environment resulting from project actions. In this case, LAWA, as lead agency, maintains the authority to determine which mitigation measures are necessary and feasible.

All comments made on the SAIP Draft EIR, including those made by the community groups, are included with responses in this Final EIR.

SAIP-PC00006 - 27

Comment: GP 2-28. You should provide complete protocol for the study, including disclosure of study responsibility, that involves community and stakeholder participations. CG

Response: The scoping process is intended to inform agencies and members of the public of a proposed project, and to provide those parties with an opportunity for input and comment on the scope of the environmental analysis. The SAIP, as a part of the LAX Master Plan, was included in the scoping process conducted for the LAX Master Plan EIR. Appendices A and B of the LAX Master Plan Final EIR provide information pertaining to the scoping process that was completed for that environmental analysis. As indicated in those appendices, LAWA conducted an extensive scoping process for the LAX Master Plan, in accordance with Section 21083.9 of CEQA, CEQA Guidelines 15082 and 15083, and the federal Council on Environmental Quality's Regulations for Implementing NEPA (40 CFR §1501.7). Six public informational meetings/workshops, three formal public scoping meetings, and one agency scoping meeting were conducted for the LAX Master Plan between September 1996 and July 1997. Public notification for the NOP, NOI, public workshops, and scoping meetings occurred in a variety of means ranging from direct mailings to advertisements/notices published in the Los Angeles Times. Such information was also posted on LAWA's website (www.laxmasterplan.org).

A separate scoping process was conducted at the outset of the SAIP EIR preparation. A Notice of Preparation (NOP) for the SAIP EIR was published on August 5, 2004. The public comment period concluded September 5, 2004. Correspondence received by LAWA during the scoping process is identified in Section 6.5 of the SAIP Draft EIR; copies of all scoping comment letters are provided at the end of that section. Once the Draft EIR was complete, the public was afforded the opportunity to comment on the document during a review period that extended from August 1 to September 15, 2005. A public workshop and stakeholder forum for the SAIP were held on August 10, 2005. A second stakeholder forum was held on September 10, 2005.

SAIP-PC00006 - 28

Comment: GP 2-29. A properly labeled grid map should be included. CG

Response: Comment noted. The meaning of this comment is not readily apparent. There are a variety of maps utilized throughout the document.

SAIP-PC00006 - 29

Comment: GP 2-30. What will be the resolution to findings of Air Quality studies? Should negative impacts be identified? CG

Response: Project-level impacts to air quality are summarized in Section 4.3 (subsection 4.3.9) of the SAIP Draft EIR. As discussed in subsection 4.3.9, the following are potentially significant and unavoidable impacts to air quality associated with the SAIP.

Airport-related emissions (e.g., aircraft, GSE, ground access vehicles, and stationary sources) exceed the significance thresholds for CO, VOC, NOx, SO2, and PM10.

Construction emissions exceed the significance thresholds for CO, VOC, NOx, and PM10.

Concentrations from on-airport and construction-related sources combined would exceed the California Ambient Air Quality Standards (CAAQS) for PM10 and National Ambient Air Quality Standards (NAAQS) and CAAQS for PM2.5.

Concentrations from on-airport and construction-related sources combined with concentrations from other reasonably foreseeable future projects would exceed the CAAQS for PM10 and NAAQS and CAAQS for PM2.5.

SAIP-PC00006 - 30

Comment: GP 2-31. What are the California and national ambient air quality standards? CG

Response: Ambient air quality standards (AAQS) define the maximum amount of a pollutant that can be present in outdoor air without harm to the public's health. AAQS have been established to protect even the most sensitive individuals in our communities.

The federal Clean Air Act Amendments (CAAA) of 1990 require all air quality planning regions in the country to be designated according to the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, i.e. pollutants causing human health impacts due to their release from numerous sources. If air pollutant concentrations in these regions do not exceed the NAAQS, they are designated attainment areas. If such concentrations do exceed the NAAQS they are designated nonattainment areas. The following criteria pollutants have been identified: ozone, particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM10), fine particulate matter (PM2.5), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO2), and sulfur dioxide (SO2).

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of California to achieve and maintain the California ambient air quality standards (CAAQS) by the earliest practical date. The California ambient air quality standards (CAAQS) and NAAQS are presented in Table 4.3-4 of the Draft EIR. The CAAQS are similar to the NAAQS, with a few notable differences as shown in Table 4.3-4.

SAIP-PC00006 - 31

Comment: GP 2-32. These following pollutants: Sulfur Dioxide (SO2), Nitrogen Dioxide (NO2), Particular matters (PM), Ozone (O3), Lead, Carbon Monoxide (CO2), are not negligible and their full impact to quality of life should be included in the study. CG

Response: Six criteria air pollutants were evaluated in the SAIP Draft EIR, including sulfur dioxide (SO2), carbon monoxide (CO), particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM10), particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (PM2.5), nitrogen dioxide (NO2), and ozone (O3). These pollutants were analyzed due to the current nonattainment status of the South Coast Air Basin and to be consistent with the air quality analysis documented in Section 4.6 of the Final LAX Master Plan EIR.

Although lead (Pb) is a criteria pollutant, it was not evaluated in the SAIP Draft EIR, because the construction of the SAIP and ongoing airport operations during construction of the SAIP would have a negligible impact on lead emissions in the South Coast Air Basin. Please see Response to Comment SAIP-PC00006-4 for more information regarding emissions of lead.

With respect to the commentor's assertion regarding documenting the impact to quality of life associated with project-related air pollution it is noted that the air pollutant emission inventories and

air quality dispersion analysis were conducted using standard industry software models and federal, State of California, and locally approved methodologies. The results of the emission inventories were compared to daily and quarterly emissions thresholds established by the South Coast Air Quality Management District (SCAQMD) for the South Coast Air Basin. Results of the air quality dispersion analysis were compared with national and California ambient air quality standards. Project-level impacts to air quality are summarized in Section 4.3.9 of the SAIP Draft EIR.

SAIP-PC00006 - 32

Comment: GP 2-33. How will increased cargo traffic impact the neighboring communities? CG

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. As stated in the Draft EIR, the analysis was prepared to analyze the construction of the SAIP. The construction of the SAIP will not generate truck or other vehicle traffic carrying air cargo to or from the airport nor will it affect the routing of vehicles carrying air cargo; therefore, the SAIP would not produce any cargo-related impacts within the neighboring communities.

If the comment is intended to pertain to other types of cargo and materials that would be carried by SAIP construction delivery traffic, then the response is as follows: Please see Responses to Comments SAIP-PC00005-10 and SAIP-PC00005-11 for additional discussion regarding construction-related truck delivery routes and effect on neighborhoods.

If the comment is intended to pertain to the LAX Master Plan, it is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-PC00006 - 33

Comment: GP 2-34. What is the domain of the impacted area? CG

Response: There is no single area (i.e., "domain") of impact defined for, or associated with the SAIP, but, rather, the area of impact varies from issue-to-issue. For example, relative to the issue of construction noise, the area of impact is immediate to the construction activity area, whereas relative to the issue of aircraft noise, the area of impact extends several miles from the airport, such as delineated on the exhibits found in Section 4.5 of the SAIP Draft EIR. The analyses provided throughout Section 4 of the SAIP provide the basis for determining and defining the particular areas of impact associated with the proposed Project.

SAIP-PC00006 - 34

Comment: GP 2-35. Where is the comparison of how many high speed aircraft are used on the Runways vs. the Center taxiway? CG
GP 2-36. How many aircraft can be accommodated in the center taxiway at one time? CG

Response: The SAIP Draft EIR does not address a comparison between use of runways and taxiways because all aircraft that arrive and depart the airport utilize both runways and taxiways for various portions of their operation. FAA sorts aircraft into four different approach speed categories A, B, C, and D. However, aircraft of all approach speeds are accommodated at LAX today and LAX will continue to be able to accommodate all aircraft approach categories after completion of the SAIP.

The number of aircraft that could be accommodated by the center taxiway is variable based on several factors including aircraft size, weather, time of day and visibility. FAA air traffic control personnel would be responsible for maintaining a safe and efficient ground traffic operation and would ultimately determine the number of aircraft allowed to utilize the taxiway at any given time.

SAIP-PC00006 - 35

Comment: GP 2-37. You say that no substantial/significant drainage will occur. How much is "significant?" CG

Response: The SAIP Draft EIR identifies thresholds of significance for hydrology/drainage on page IV-21 in Section 4.1.4.1 and defines what would be considered a significant hydrology impact due to the proposed project.

SAIP-PC00006 - 36

Comment: GP 2-38. Will airport pay if there is damage to the Dominguez Water Channel? CG

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response. It should be noted, however, that in accordance with mitigation measure MM-HWQ-1, funds will be collected to enable improvements to regional drainage facilities to be made. A portion of these funds will be paid by LAX tenants and users in accordance with the possessory interest tax laws and other legal assessments, consistent with federal airport revenue diversion laws and regulations and in compliance with state, county and city laws.

SAIP-PC00006 - 37

Comment: GP 2-39. (P. 1-3, 1.1.3) What is the public resources code section 21094(b)? CG

Response: California Public Resources Code Section 21094(b) is a part of the California Environmental Quality Act (CEQA). The text of this section is as follows:

"(b) This section applies only to a later project which the lead agency determines (1) is consistent with the program, plan, policy, or ordinance for which an environmental impact report has been prepared and certified, (2) is consistent with applicable local land use plans and zoning of the city, county, or city and county in which the later project would be located, and (3) is not subject to Section 21166." This section defines the circumstances under which a tiered EIR may be prepared.

SAIP-PC00006 - 38

Comment: GP 2-40. (P. 1-7 1.3.2.2, C-1) How do you enforce delivery times? What is the schedule of penalties? CG

Response: The LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) identified specific commitments that form the basis for regulating construction truck delivery hours, designating truck routes, and specifying employee shift hours, among other commitments that would have an effect on construction related traffic generated by the SAIP. LAWA, through its Ground Transportation Construction Coordination office, will enforce restrictions on construction truck routes and arrival and departure times through contractual obligations with the various contractors. For the SAIP, contracts between LAWA and the construction contractors would more specifically define and expand upon the requirements set forth in the MMRP and include penalties for violations of these rules.

The draft contract language provided in Special Provisions Conformed Set, Section 21 - Environmental Requirements, 8/24/05, for the LAX Runway 25L and Center Taxiway Improvements project, provides more definitive language pertaining to contractor requirements for scheduling deliveries, use of haul routes, and other requirements. The draft contract language includes a "Compliance and Enforcement" provision that requires the contractor to provide a monthly summary status report of compliance with the contract specifications. The contractor's compliance will be randomly monitored throughout the term of the contract. Penalties for non-compliance with the specifications will be \$1,000 per day per occurrence for each non-compliance of the specified requirements.

SAIP-PC00006 - 39

Comment: GP 2-41. (P. 1-7 1.3.2.2, C-1) How do you "encourage" night time truck deliveries? CG

Response: Nighttime truck deliveries would be encouraged through an ongoing dialogue between LAWA, the contractor, and their subcontractors. Although dependent on many factors, nighttime deliveries would generally be considered for materials that are not time sensitive and can be scheduled during times of the day when construction is not at its peak. As with all truck deliveries, deliveries at night would be required to use the designated haul routes, which are located away from sensitive noise receptors. Consistent with the requirements set forth in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP), construction truck deliveries and construction employee shifts shall be scheduled by the SAIP construction contractor to avoid the peak periods of 7:00 to 9:00 a.m. and 4:30 to 6:30 p.m.

Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, compliance and enforcement provisions, and methods for monitoring contractor compliance with contract requirements.

SAIP-PC00006 - 40

Comment: GP 2-42. (P. 1-1, 1.1.1) Please list the improvements from 1984 until now that was not classified as MAJOR. CG

Response: Section 1.1.1 of the SAIP Draft EIR, within which the statement of interest to the commentor is located, simply pertains to the background and context of the LAX Master Plan, noting that the LAX Master Plan provides the first major new facilities for, and improvements to the airport since 1984. At that time, just prior to the 1984 Olympics, major improvements such as the Tom Bradley International Terminal (TBIT) and the upper-level roadway system in the Central Terminal Area, were developed. A listing of all non-major improvements occurring at LAX since 1984, as requested by the commentor, is not necessary for, or pertinent to, the SAIP Draft EIR. To the extent any notable improvements have occurred at LAX since 1984, such improvements would be reflected in the existing conditions assumed in the LAX Master Plan Final EIR and the SAIP Draft EIR.

SAIP-PC00006 - 41

Comment: GP 2-43. (P. 1-3, 1.1.3) You refer to the LAX MP Final EIR as a final document. Throughout the SAIP EIR, why do you refer to documents you assume we know? CG

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00006 - 42

Comment: GP 2-44. (P. 1-5, 1.3.1.1) No significant drainage impacts would occur. How much is 'substantial'? CG

Response: The content of this comment is similar to comment SAIP-PC00006-35; please refer to Response to Comment SAIP-PC00006-35.

SAIP-PC00006 - 43

Comment: GP 2-45. Why has LAWA accepted Bids on the SAIP prior to the completion of the EIR process? CG

Response: Please see Response to Comment SAIP-PC00006-7.

SAIP-PC00006 - 44

Comment: GP 2-46. How will the Stakeholder's program be able to change or alter SAIP if the contracts have been signed to do the work? CG

Response: The content of this comment is similar to comment SAIP-PC00006-7; please refer to Response to Comment SAIP-PC00006-7.

SAIP-PC00006 - 45

Comment: GP 2-47. What is the purpose of the SAIP if the EIR has indicated there shall be 'significant' and unavoidable impacts? CG

Response: The purpose of an environmental impact report is to make a good faith effort to identify and disclose the potentially significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which those potentially significant effects may be mitigated or avoided. See Pub. Res. Code § 21002.1.

For a project to be approved, it need not reduce all environmental impacts to a less-than-significant level. As stated in Response to Comment AL00033-333 in the LAX Master Plan Final EIR, there are many large-scale projects, such as this one, that simply cannot reduce all environmental impacts to a less-than-significant level. CEQA requires that all feasible mitigation measures be evaluated and implemented. If impacts remain potentially significant, then a Statement of Overriding Considerations must be adopted before the project can be approved. The Overriding Considerations must find that the project's benefits outweigh its unavoidable adverse environmental effects. See Pub. Res. Code § 21081(b); CEQA Guideline 15093(a). The Findings and Overriding Considerations are adopted by the Lead Agency at the time it approves the proposed project.

See also Response to Comment SAIP-PC00006-16.

SAIP-PC00006 - 46

Comment: GP 2-48. What happens if 3.1 tons of cargo is exceeded? CG

Response: Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. The SAIP itself would not change the capacity of the airport. See also Response to Comment SAIP-PC00010-25 regarding the ability of LAWA to specifically limit operations or activity at the airport.

SAIP-PC00006 - 47

Comment: GP 2-49. (P. 1-7 1.3.2.2, C-1) "Every effort" will not be made. Use the word "reasonable" before the use of "every effort". CG

Response: LAWA acknowledges that the term "every effort" in Master Plan Commitment ST-16 is subject to interpretation. However, the intent of Master Plan Commitment ST-16, Designated Haul Routes, remains the same. LAWA recognizes the importance of establishing haul routes away from sensitive noise receptors. However, Master Plan Commitment ST-16 is not relied on to reduce a potentially significant impact to a less-than-significant level.

The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to the SAIP. Mitigation is proposed to address this potentially significant impact (See SAIP Draft EIR at Section 4.2.8), but it will not reduce the impact to a less-than-significant level.

Please also see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, and

compliance and enforcement provisions to help ensure that SAIP contractors comply with traffic-related contract requirements.

SAIP-PC00006 - 48

Comment: GP 2-50. If net airport peak hours trips exceed 8236 or 78.9 MAP or 3.1 of Cargo, what form would the re-study take and would you adjust the maximum allowable figures? CG

Response: The content of this comment is similar to comment SAIP-PC00010-25; please refer to Response to Comment SAIP-PC00010-25.

SAIP-PC00006 - 49

Comment: Chapter 1. 1.3 Summary of Project-Specific Environmental Analysis

GP 2-51. (P. 1-12, 1.3.5.1.3) This DEIR for SAIP deals only with the SAIP. What would be the aircraft exposure level on a cumulative basis when and if there are other runway closures? CG

Response: As discussed in Section 2.4 (subsection 2.4.5.2) of the SAIP Draft EIR, the SAIP proposed construction plan calls for closing Runway 7R-25L for eight months. During construction of the center taxiway, Runway 7L-25R will be periodically closed during nighttime hours to complete tie-ins from the new center taxiway and the runway. Section 4.5 (subsection 4.5.6.1) of the SAIP Draft EIR discusses the aircraft noise impact associated with closing Runway 7R-25L. Section 4.5 (subsections 4.5.7.2.2 and 4.5.7.2.3) of the Draft EIR identifies known airport projects (both Master Plan and unrelated airport projects) that may contribute, along with SAIP construction-related activities, to cumulative noise impacts. No other known project would involve runway closures during the SAIP construction period. Short-term closures may occur due to safety or security concerns, but such closures cannot be predicted and would be short-term in nature (a few hours). In addition, these types of closures would not have the potential to contribute to significant aircraft noise impacts, and they would not provide substantial change in average annual day conditions as modeled for Project (2005) conditions.

Please also see Topical Response TR-SAIP-PD-2, regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00006 - 50

Comment: GP 2-52. (P. 1-11, 1.3.4.2) AQ 2 - School air filters "air filtration at 'qualifying' public schools"...Why not qualifying private schools? CG

Response: Master Plan Commitment AQ-2 "School Air Filters" is described in the September 2004 LAX Master Plan Mitigation Monitoring & Reporting Program. As part of Master Plan Commitment AQ-2, LAWA will provide funding for air filtration systems at qualifying schools with air conditioning systems in place. Qualifying schools will be determined based on a review of the conclusions and recommendations of the Air Quality Source Apportionment Study (AQAS) which is Master Plan Commitment AQ-1 and a part of the Community Benefits Agreement (CBA) for the LAX Master Plan Program. All facilities that are considered a school by the State of California (or an appropriate agency) will be potentially eligible to receive funding, pending the results of the AQAS.

SAIP-PC00006 - 51

Comment: GP 2-53. (P. 1-13, 1.3.5.2) Who determines "as far as possible?" (MM-N-8)

Response: LAWA personnel and construction engineers worked together to determine the required size needed to accommodate staging area activities and materials to support the construction projects associated with SAIP. The primary goal in choosing locations is to maintain a distance that is large enough to propagate (reduce noise as distance increases) activity noise levels to a level that does not significantly impact noise-sensitive areas. The location must also avoid other environmental

impacts as much as possible (e.g., wetlands, endangered species, etc.). The second goal is to accommodate the area needed to support construction activities. The staging area designated for SAIP falls between the north and south airfield complex on the west side as illustrated in Exhibit 4.5-16 of the SAIP Draft EIR. This location provides a large buffer between itself and communities north and south of the airport. As discussed in Section 4.5.6.3 of the SAIP Draft EIR, construction equipment noise from the staging area will not result in a significant impact on surrounding communities. Please also see Topical Response TR-SAIP-N-1 for a general discussion of construction equipment impacts on off-airport locations.

SAIP-PC00006 - 52

Comment: Who determines what equipment emits the least "possible" noise? (MM-N-9)
Who determines what is technically and economically feasible? (MM-N-9)

Response: As discussed in the LAX Master Plan Mitigation Monitoring and Reporting Program (September 2004), the California Environmental Quality Act (CEQA) required that the City of Los Angeles establish a reporting and monitoring program for mitigation measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. (Public Resources Code, § 21081.6(a).) LAWA has lead responsibility for administering the program and support responsibilities. As the monitoring agency, LAWA is responsible for various aspects of monitoring or reporting, including ensuring compliance with Mitigation Measures MM-N-7, MM-N-8, MM-N-9, and MM-N-10 related to construction noise mitigation. LAWA will place requirements in construction contracts for the SAIP which require noise control measures that comply with City of Los Angeles guidelines (noise provisions in the City of Los Angeles Municipal Code Chapter XI Article 1 and Section 41.40; requirements of the US Department of Transportation, FHWA Bulletin-Highway Construction Noise "Measurement, Prediction, and Mitigation" and the City of Los Angeles Draft CEQA Thresholds Guide dated May 14, 1998.). The primary focus for LAWA is to ensure that construction noise does not exceed the impacts resulting from SAIP construction noise identified in Section 4.5.6.3 of the SAIP Draft EIR. LAWA will review and collaborate with the construction contractor and their acoustical engineer regarding the type of equipment used and acoustical specifications.

SAIP-PC00006 - 53

Comment: Who determines what is necessary during these sensitive times? (MM-N-10)

Response: As discussed in the LAX Master Plan Mitigation Monitoring and Reporting Program (September 2004), the California Environmental Quality Act (CEQA) required that the City of Los Angeles establish a reporting and monitoring program for mitigation measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. (Public Resources Code, § 21081.6(a).) LAWA has lead responsibility for administering the program and support responsibilities. As the monitoring agency, LAWA is responsible for various aspects of monitoring or reporting, including ensuring compliance with Mitigation Measures MM-N-10 related to construction scheduling and avoiding the noisiest activities during noise-sensitive hours. LAWA will require the construction contractor to require scheduling their noisiest on-site construction activities to avoid sensitive times of the day (9 p.m. to 7 a.m. Monday through Friday, 8 p.m. to 6 a.m. on Saturday, and anytime on Sunday and holidays). The contractor will coordinate with LAWA regarding a need to schedule this type of activity during noise-sensitive hours due to operational safety concerns. LAWA will ultimately approve any such changes.

SAIP-PC00006 - 54

Comment: Who will determine that "every effort" will be made? (ST-16) CG

Response: LAWA acknowledges that the term "every effort" in Master Plan Commitment ST-16 is subject to interpretation. However, the intent of Master Plan Commitment ST-16, Designated Haul Routes, remains the same. LAWA recognizes the importance of establishing haul routes away from sensitive noise receptors. However, Master Plan Commitment ST-16 is not relied on to reduce a potentially significant impact to a less-than-significant level.

The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to the SAIP. Mitigation is proposed to address this potentially significant impact (see Draft EIR at Section 4.2.8), but it will not reduce the impact to a less-than-significant level.

Please also see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation and Monitoring Program (MMRP) commitments pertaining to traffic, and compliance and enforcement provisions to help ensure that SAIP contractors comply with traffic-related contract requirements.

Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00006 - 55

Comment: Chapter I.
1.5 Summary of Potential Environmental Impacts Related to the South Airfield Improvement Project:

GP 2-54. Which specific libraries will be closed due to the impacts of the project? CG

Response: The commentor is referencing the text in Table 1-2, Summary of Other Potential Environmental Impacts - Related to the South Airfield Improvement Project, page I-25, under the "Impact by Discipline" column and subheading "Public Services" in the SAIP Draft EIR. The text states that "Project-related effects cause the closure of a library or substantially inhibit the uses of a facility." However, this statement refers generally to any project that would cause a significant impact should that project result in the closure or inhibit the uses of a library. The SAIP would not exceed this threshold of significance and would not result in the closure of a library. As analyzed in Section 5.12 (subsection 5.12.4.1.3) of the SAIP Draft EIR, construction activities associated with the SAIP would not cause substantial increases in noise levels or impair access to local libraries. Therefore, impacts on local libraries would be less than significant.

However, in order to clarify the text of Table 1-2, Summary of Other Potential Environmental Impacts – Related to the South Airfield Improvement Project, page I-25 has been revised. Please see Chapter IV, Corrections and Additions to the SAIP Draft EIR.

SAIP-PC00006 - 56

Comment: Chapter II.
2.1 LAX Master Plan's South Airfield Improvement Project:

GP 2-55. The document is deficient because it fails to consider other reasonable alternatives. A potential cost effective alternative would be to fully staff the LAX Control Tower. Other examples would be improving equipment, such as radio transmissions and/or hold or guard bars on the runways and retraining to minimize human error. CG

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00006 - 57

Comment: GP 2-56. SAIP is not a safety measure but an expansion measure to accommodate the new large aircraft and additional operations. CG

Response: The SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. As discussed in Chapter Two of this Final EIR, the south airfield

has experienced a high number of runway incursions. Runway incursions represent a serious threat to aviation safety. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00006 - 58

Comment: GP 2-57. How will LAWA "encourage" other airports to assume a greater air traffic load; What incentives, fees, or other methods would be instituted; How would they be funded and monitored? CG

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00006 - 59

Comment: GP 2-58. What would be the impact on runway incursions of moving the hold bars 20 or 30 feet further south on taxiways approaching 25R? CG

Response: One of the key factors contributing to runway incursion incidents in the South Airfield of LAX is the fact that the area allocated for the holding of aircraft between the two runways is limited and short. Controllers use this area to sequence the crossing of aircraft through the departure runway (7L/25R). Specifically, the area between the two hold position markings is limited to a single wide-body aircraft (B747-400) and in some cases, two smaller aircraft. In both cases, pilots have the tendency of misjudging their position and often inadvertently cross the hold position. Furthermore, it is reported that some of the runway incursions are a result of the high speed aircraft travel when exiting Runway 25L.

Reducing the space between the two hold positions by moving the northern hold position to the south, as suggested by the comment, could severely impact the capacity of the airfield and further degrade the safety of operations. The reduction of the space to hold aircraft would force controllers to hold departures of Runway 25R and clear pilots across the departure runway making these two runways dependent to each other. Additionally, the movement of the holding positions to the south will get them closer to the arrival runway, at a point where the aircraft is still traveling at higher speeds.

SAIP-PC00006 - 60

Comment: GP 2-59. The listing of category "A" runway incursions (RI) as justification for this project was erroneous. CG

Response: The content of this comment is similar to comment SAIP-PC00016-4; please refer to Response to Comment SAIP-PC00016-4.

SAIP-PC00006 - 61

Comment: GP 2-60. There is no good project description. CG

Response: The content of this comment is similar to comment SAIP-PC00016-4; please refer to Response to Comment SAIP-PC00016-4.

SAIP-PC00006 - 62

Comment: Chapter III.
3.1 Los Angeles Regional Airport System:

GP 2-61. What is the impact of the A380 on the runways? CG

Response: Because of its width, runway 7R-25L is the only runway at LAX that is able to accommodate the A380. This would be the case regardless of the SAIP. It is anticipated that A380 service at LAX will commence in 2007, regardless of whether the SAIP is approved and implemented. The impending operation of the NLA, including the A380, at LAX with or without any of the LAX Master Plan improvements, was also acknowledged in the LAX Master Plan EIS/EIR. The ability of LAX to accommodate the A380 does not depend on the SAIP, and failure to approve and implement the SAIP would not preclude the A380 from operating at LAX.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00006 - 63

Comment: GP 2-62. Since the MP is calling for the removal of the remote gates, why are they being renovated at this time? CG

Response: The removal of gates is not a component of the SAIP. The comment, therefore, does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response. Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the LAX Master Plan Final EIR and the SAIP Draft EIR.

SAIP-PC00006 - 64

Comment: Chapter IV.
4.1 Hydrology and Water Quality:

GP 2-63. LAWA should secure a binding agreement with the appropriate County agencies regarding the potential significant and unavoidable impacts to the Dominguez Channel Watershed before proceeding. CG

Response: Please see Response to Comment SAIP-PC00016-11 regarding implementation of Mitigation Measure MM-HWQ-1. Please also see Topical Response Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00006 - 65

Comment: Chapter IV.
4.2 Off-Airport Surface Transportation:

GP 2-64. All of the traffic analyses use the assumption that the construction related traffic will be during non-peak hours. Therefore, given that the 405 traffic is already bumper to bumper, that is not a reasonable assumption. CG

Response: The traffic analysis for the SAIP was prepared using the requirements set forth in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) that stipulate that construction

employees shifts and truck delivery hours for LAX Master Plan projects will not coincide with peak traffic periods and that designated truck routes for deliveries will use freeways and non-residential streets. LAWA will enforce restrictions on construction truck routes and arrival and departure times through contractual obligations with the various contractors. Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, and related compliance and enforcement provisions.

Truck deliveries would be scheduled and monitored so that deliveries would not normally arrive or depart the construction staging areas from 7 a.m. to 9 a.m. and from 4:30 p.m. to 6:30 p.m. While the I-405 Freeway can, at times, be congested for several hours of the day, it is not unreasonable to assume that truck deliveries will use this interstate freeway to and from the SAIP site. Furthermore, some truck delivery traffic will likely use the I-105 Freeway rather than the I-405 Freeway to travel to and from the SAIP site. Restricting truck traffic from using the I-405 Freeway is not practical or necessary. Assuming truck deliveries could even reach their origin/destination without using the I-405 Freeway, prohibiting the use of the I-405 would likely increase overall vehicle miles traveled by creating unnecessarily long and circuitous routes for truck drivers on the remainder of the freeway system.

SAIP-PC00006 - 66

Comment: GP 2-65. Technical Report 3b3 Off Airport Ground Access Impact and Mitigation Measures, January, 2001 was not given but is referenced. Please supply the referenced document. CG

Response: Technical Report 3b, Off-Airport Ground Access Impact and Mitigation Measures, is available in the SAIP Draft EIR and Master Plan reference library. The library is located at:

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7301 World Way West, 3rd floor
Los Angeles, CA 90045
(310) 646-3853

SAIP-PC00006 - 67

Comment: Chapter IV.
4.3 Air Quality:

GP 2-66. Once the negative impacts are identified, how will they be mitigated? How will the liability for addressing specific, individual health impacts be dealt with? CG

Response: Mitigation measures that have been proposed to reduce construction and operational emissions associated with the SAIP are summarized in Sections 4.3.5 and 4.3.8 of the SAIP Draft EIR.

Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP). The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. The MPAQ will be completed prior to the implementation of the SAIP.

Please see also Topical Response TR-SAIP-HRA-1 for a discussion of mitigation of impacts to human health. Liability for individual health impacts was not addressed in the human health risk assessment, and is not required to be addressed by CEQA.

SAIP-PC00006 - 68

Comment: GP 2-67. Additional pollutants caused by brakes, tires, and engine exhaust, while stopping, starting and idling when accessing and leaving the center taxiway should be further studied. CG

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The effect of the centerline taxiway on airport operational emissions was addressed in the interim (2013) air quality analysis in the LAX Master Plan EIR. Please see Section 4.6.6 of the LAX Master Plan Final EIR for a summary of air quality impacts. The SAIP Draft EIR focuses on construction period impacts and provides a robust analysis of airport operational impacts associated with the closure of Runway 7L-25R during construction of the SAIP. The scope of the air quality analysis is described on page IV-81 in Section 4.3.1 of SAIP Draft EIR.

Braking and tire wear emissions from aircraft would not change materially as a result of the SAIP. The number of aircraft landing on Runway 7R-25L and exiting on high-speed taxiways would be the same with and without the SAIP. With a centerline taxiway, the number of aircraft making full and complete stops after exiting Runway 7R-25L would likely be reduced compared to the No Project condition since pilots could receive clearances to enter the centerline taxiway before landing. The number of aircraft coming to a full and complete stop before crossing Runway 7L-25R and accessing the terminal ramp would also be reduced since some pilots would receive clearance to cross the runway when they are taxiing on the centerline taxiway.

SAIP-PC00006 - 69

Comment: GP 2-68. Environmental impacts of increased idling time attributed to the new taxiway configuration should be studied and mitigated. CG

Response: The content of this comment is essentially the same as comment SAIP-PC00006-68; please refer to Response to Comment SAIP-PC00006-68.

SAIP-PC00006 - 70

Comment: GP 2-69. All of the traffic analyses use the assumption that the construction related traffic will be during non-peak hours. Therefore, given that the 405 traffic is already bumper to bumper, that is not a reasonable assumption. How will this be mitigated?

Response: The first part of this comment is identical to comment SAIP-PC00006-65; please refer to Response to Comment SAIP-PC00006-65.

Because peak construction-related traffic activity will occur during periods that do not coincide with peak commute periods, analysis of roadway segments and freeway links are not required. A Traffic Impact Analysis through the Congestion Management Program (CMP) for Los Angeles County is only required if the project will add 50 or more trips at a CMP arterial monitoring intersection during either the a.m. or p.m. weekday peak hours, or if the project adds 150 or more trips, in either direction, to a CMP mainline freeway monitoring location, during either the a.m. or p.m. weekday peak hours. SAIP construction would not generate traffic during the a.m. or p.m. peak periods. Therefore, detailed analysis of the freeway system, including the I-405, is not required for this study, and assessment of potential impacts and mitigation measures is not warranted.

SAIP-PC00006 - 71

Comment: GP 2-70. Where is the impact on air quality discussed? CG

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The air quality analysis presented in the SAIP Draft EIR "tiers" from analysis and findings documented in Section 4.6.6 of the LAX Master Plan Final EIR. The analyses have been further refined to incorporate detailed project-related assumptions regarding construction equipment that will be utilized and airport activity levels during construction of the SAIP.

The impacts of construction-related traffic on air quality are discussed in Sections 4.3.2.3.3, 4.3.2.3.4, and 4.3.6.1.1 of the SAIP Draft EIR. Additional information regarding the construction emissions analysis is provided in Appendix K of the SAIP Draft EIR.

SAIP-PC00006 - 72

Comment: GP 2-71. Gaussian Concentration Distribution is used but not explained. Please explain. CG

Response: The Gaussian plume model is the most accepted computational approach to calculating the concentration of a pollutant at a certain point. The Gaussian dispersion equation assumes a constant fractional decrease in pollutant concentration per unit distance in the horizontal and vertical direction from a stationary or moving center of dispersion. Gaussian plume models assume that dispersion in the horizontal and vertical direction will take the form of normal Gaussian curve with the maximum concentration at the center of the plume. There are several versions of the Gaussian plume model including the Pasquill-Gifford model. Appendix I of the publication Air Quality Procedures for Civilian Airports and Air Force Bases (April 1997) by the U.S. Department of Transportation provides a detailed discussion of Gaussian distributions and Gaussian plume models.

SAIP-PC00006 - 73

Comment: GP 2-72. OLM Methodology employed in the Technical Report S-4, Attachment P is not included in this report. CG

Response: CEQA Guideline 15150 specifically allows an EIR or a Negative Declaration to incorporate by reference another document which is a matter of public record or is generally available to the public.

Technical Report S-4, Attachment P, of the LAX Master Plan Final EIR is available on-line at www.laxmasterplan.org. A Stakeholder Liaison Office has also been established to facilitate community information and involvement. Copies of all documents pertaining to the SAIP Draft EIR including Technical Report S-4, Attachment P, of the LAX Master Plan Final EIR are available at the Stakeholder Liaison Office. The Stakeholder Liaison office is located at:

6661 Imperial Highway
Los Angeles, CA 90045

SAIP-PC00006 - 74

Comment: Chapter IV.
4.4 Human Health Risk Assessment:

GP 2-73. The mitigation should include dispensing of portable air filtration units to residents and schools. CG

Response: Please refer to Topical Response TR-SAIP-HRA-1 for a general discussion of health risk assessment and mitigation measures. As noted in that Topical Response, as well as in Section 1.3.4.2 of the SAIP Draft EIR, LAWA adopted Master Plan Commitment AQ-2, under which LAWA will provide funding for air filtration at qualifying public schools with air conditioning systems in place.

Also, as explained in Responses to Comments AL00033-350 and PC00051-7 in the LAX Master Plan Final EIR, "[t]he Supplement to the Draft EIS/EIR contained an extensive list of potential mitigation measures and highlighted those being carried forward. Mitigation measures presented in the Final EIS/EIR represent the final package of mitigation measures based on comments on both the Draft EIS/EIR and the Supplement EIS/EIR. The FAA has made every effort through its public participation process to include local communities and community leaders in the CEQA/NEPA process for this document. Although ventilation systems as described by the commentor could improve indoor air quality, indoor air is not a primary issue for exposure to TAPs. Therefore, the focus was placed on mitigation measures that would decrease emissions from identified sources such as automobiles and trucks, which contribute to TAPs concentrations in the airport vicinity."

The results of the health risk assessment are based on a conservative analysis of the ambient air exposure pathway to the maximally exposed individual over a lifetime. The assessment does not differentiate between indoor and outdoor air exposures. The air quality mitigation measures assumed to be in place for this assessment focus on reducing emissions at the source, either through the use of emission control technologies or operational measures to change the timing, location, or intensity of emissions, via mechanisms under LAWA control. Mitigation of impacts through exposure intervention as suggested by the commentor would have no effect on reducing emissions, which would remain significant. The dispensing of portable air filtration units to residents potentially impacted by LAX is considered infeasible as a mitigation measure because it is unmanageable in a practical sense and it would provide uncertain long-term benefits. While there are dozens of portable air purifiers on the market, not all such units may be suitable to reduce the pollutants which drive the risks identified in the human health risk assessment. Approximately 40 percent of the estimated cancer risk is due to diesel particulate matter and the remaining approximately 60 percent of estimated cancer risk is due to toxic organic compounds; the estimated non-cancer risk is due primarily to toxic organic compounds. For a home-based portable air purifier to be effective in reducing these risks, it must not only filter fine particles but also capture organic compounds, each step requiring a separate control technology which requires continuing maintenance attention to optimize efficiency. Also, because air purifier manufacturers are not required to identify the efficiency of their air purifiers, the in-use control effectiveness of such units is speculative. Therefore, even if LAWA were to provide such devices to residents, whether or not such devices would mitigate impacts associated with the SAIP cannot be determined. Moreover, even if it were assumed that such devices would be effective, LAWA could not practicably maintain control of such units to ensure a known level of effectiveness or continued effectiveness beyond the initial installation.

SAIP-PC00006 - 75

Comment: GP 2-74. Lack of permanent monitoring stations should not preclude study of TAC's. CG

Response: Please see Response to Comment SAIP-PC00010-24 regarding the absence of a permanent monitoring station in the vicinity of LAX. As noted in that response, despite this absence, a number of studies of air pollution in the LAX area have been conducted, including a study of toxic air contaminants (TACs). In addition, the SAIP Draft EIR evaluated impacts to human health associated with exposure to TACs in Section 4.4, with supporting technical data and analyses provided in Appendix L.

SAIP-PC00006 - 76

Comment: GP 2-75. The human health impact assessment is speculative and unreliable. It relies on unsubstantiated assumptions. Primarily it assumes the implementation of an MPAQ, which does not yet exist. The SAIP should not proceed until the MPAQ is complete and can be assessed. CG

Response: The methods and assumptions used in the human health risk assessment (HHRA) follow standard and widely used and accepted approaches to estimating human health impacts due to toxic air constituents (TACs). Please refer to Topical Response TR-SAIP-HRA-1 for a discussion of methods used for the HHRA.

The commentor also refers to the Mitigation Plan for Air Quality (MPAQ). The MPAQ will be completed before construction of the SAIP commences. Please also see Response to Comment SAIP-PC00016-12 regarding the MPAQ.

SAIP-PC00006 - 77

Comment: Chapter IV.
4.5 Noise:

GP 2-76. How was it determined that heavy equipment operations would not increase existing ambient exterior noise levels by 5 dba or more; Will monitoring occur and if assessment is incorrect, will additional mitigation be required? CG

Response: As stated in Section 4.5.6.3 of the SAIP Draft EIR, construction equipment noise levels are calculated using representative activity noise levels provided by the Draft L.A. CEQA Thresholds Guide. Based on general scheduling information and construction-related mitigation measures (discussed in Section 4.5.5.2), an estimated CNEL level at the construction site is calculated. Using lateral attenuation (reduction in noise levels as distance increases), a construction equipment CNEL is determined for the closest noise-sensitive site. As stated in Section 4.5.6.3 of the SAIP Draft EIR, the construction equipment noise level at the nearest noise-sensitive site is 72.8 CNEL. Adding this noise energy to the predicted 2005 non-construction ambient levels at the nearby noise-sensitive sites (68 CNEL), the total 2005 ambient level with the project is expected to be 74 CNEL.

As addressed in Section 4.5.4.3, a 5 dBA increase over existing ambient CNEL levels is considered a significant impact. Based on noise measurement data collected during 2003 at LAWA's noise monitoring site ES2, the 2003 Baseline ambient is 70.4 CNEL. The difference between 74.0 (project ambient level) and 70.4 (baseline ambient) CNEL is 3.6 dBA. This is less than the 5 dBA threshold of significance and, therefore, represents a less than significant impact.

Please also refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. Please see Response to Comment SAIP-AL00005-23 regarding the Construction Noise Control Plan which will ensure that construction noise does not increase above the levels disclosed in the SAIP Draft EIR.

SAIP-PC00006 - 78

Comment: GP 2-77. In relation to the runway construction period, additional runway mitigation measures need to be considered and implemented, such as:
-Close down 1/4 of the gates
-Temporarily change the flight paths CG

Response: Gate closures are considered a capacity limitation technique. For this reason, the temporary closure of gates as a mitigation technique is not considered to be legally feasible. The technique seeks to reduce noise by limiting the number of operations at the airport. With the passage of the Airport Noise and Capacity Act of 1990, Congress set forth the analytical requirements that must be met in order for an individual airport to establish noise or access restrictions/limitations. The requirements that must be met to restrict or limit aircraft are set forth in FAR Part 161. Part 161 requires a rigorous analysis as well as final FAA approval of the restriction. The conditions for approval of a restriction affecting aircraft operations require that the analysis provide evidence of the following conditions:

- The restriction is reasonable, not arbitrary, and nondiscriminatory.
- The restriction does not create an undue burden on interstate or foreign commerce.
- The restriction maintains safe and efficient use of navigable airspace.
- The restriction does not conflict with any existing federal statute or regulation.
- The restriction does not create an undue burden on the national aviation system.

With limited capacity caused by closing Runway 7R-25L, additional capacity measures for purposes of mitigating a short-term noise impact may not meet the requirements stated above. Additionally, due to the amount of time required to conduct such a study, application for permission to apply capacity-limiting measures is not considered feasible for mitigating aircraft noise impacts associated with SAIP construction which is relatively short-term in nature. Please refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. See also Response to Comment SAIP-PC00018-4.

Section 7.1 of Appendix D of the LAX Master Plan Draft EIR provides an extensive discussion related to the feasibility of mitigating aircraft noise impacts by re-routing aircraft noise sources to areas that are either more compatible with or more distant from noise sources. (See also discussion in Section 4.5 (subsection 4.5.8.1.1) of the SAIP Draft EIR.) The extent to which measures might be beneficial is dependent on such factors as the probable noise reduction over non-compatible areas, the extent to which a measure would likely compromise safety margins and the ability of the airport to perform its intended function. In summary, the qualitative review

concludes very limited opportunities to route departures (most occurring over the ocean) and arrivals (most of which require a stable straight-in approach at least 3 nautical miles from the end of the runway and limited compatible land-use within 3 nautical miles from the airport) beyond what LAWA implements presently. A majority of the aircraft noise within the 65 CNEL and greater noise exposure area around the airport is caused by arrivals to Runway 25L and Runway 24R. For safety reasons, aircraft must be on a stable straight-in approach at least three miles from the end of the runway. For an airport with levels equivalent to LAX, the FAA will typically have aircraft on an established straight-in approach several miles away from the runway end, especially for a parallel runway operation like LAX. The ability to alter this procedure is further hampered with a runway closure. For a four runway layout, the evaluation conducted for the LAX Master Plan Final EIR (Section 7.1 of Appendix D of the LAX Master Plan Draft EIR) found that alternative flight paths for re-routing aircraft noise sources were limited, and did not provide any more benefit than existing noise abatement procedures. With a three runway layout, any potential options are even more limited. Therefore, additional effective and safe measures to abate or move the noise sources during construction via alternate runway use or routing options are limited to those already incorporated for SAIP, because the airport will be limited to three runways during project construction.

Master Plan Commitment N-1, Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program, and Mitigation Measure MM-N-4, Update the Aircraft Noise Abatement Program Elements as Applicable to Adapt to Future Airfield Configuration, are designed to maintain and enhance existing noise abatement procedures that have been found to be the most beneficial procedures for LAX. As discussed in Section 4.5 (subsection 4.5.8.1.1) of the Draft EIR, the changes in aircraft noise exposure resulting from construction activities related to the SAIP are expected to result in significant albeit temporary impacts related to 65 CNEL even with LAX Master Plan Commitment N-1 in place.

Please see also Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR, Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP, and Topical Response TR-SAIP-GEN-3 regarding mitigation measures.

SAIP-PC00006 - 79

Comment: GP 2-78. Does anyone anywhere believe that noise in a classroom does not hinder the educational process; What could possibly be a replacement threshold other than "no learning disruptions"; What school districts will be your study area? CG

Response: The LAX Master Plan Final EIR and the SAIP Draft EIR acknowledge that airport noise exposure has impacts. For its analysis of the significance of aircraft noise impacts on classroom disruption, the Draft EIR employs the standards of significance developed for the same purpose in the LAX Master Plan EIR.

As explained in Section 4.1 and Appendix SC-1 of the LAX Master Plan Final EIR, in developing those standards of significance, LAWA comprehensively reviewed research literature on the effects of the ability of children to learn. (See also Response to Comment SAL00017-24 in the LAX Master Plan Final EIR.) It is notable that none of the studies reviewed cited a reliable statistical relationship between the amount of aircraft noise exposure present and the degree of learning difficulty experienced by children at affected schools. Therefore, it was determined that two thresholds of significance should be based on the 1992 Federal Interagency Committee on Noise (FICON) study detailing the degree of speech understanding at various noise levels (in dB) and the amount of time during the school day that these threshold levels were exceeded. The American National Standards Institute published standards for classroom noise in 2002 that provided additional information, but again did not provide a relationship between aircraft noise and classroom disruption. Therefore, a third threshold was established for interior noise levels for the peak hour of operation during the school day. The Maximum Noise Level (LMAX), Equivalent Noise Level (LEQ) and Time Above (TA) predetermined dB levels were used to evaluate the noise impacts at school facilities. Respectively they describe the peak noise level heard during a period of time, the unpenalized average noise level present during a period of time, and the amount of time the noise level at a given location exceed a specific dB level. The noise levels at schools were computed by the grid analysis option of the INM to estimate the noise levels above or below the established

thresholds of significance at the school locations during school hours (i.e., between 8 a.m. and 4 p.m.). The thresholds are further discussed in Section 4.1.4.1.1 of the LAX Master Plan Final EIR.

LAWA has committed to supplement these three metrics for evaluation of aircraft noise impacts on classroom disruption in an additional study, as part of MM-LU-3, a mitigation measure identified in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) and identified as applicable to the SAIP in Section 4.5.5.2 of the SAIP Draft EIR. The study design and scope has not yet been developed. Therefore, specific school(s) and/or district(s) to be treated in the study have not yet been identified at this time. Nevertheless, this mitigation, like others discussed in Section 4.5.5.1 of the SAIP Draft EIR, will apply to post-construction operation of the SAIP.

School districts evaluated in the SAIP Draft EIR for potential aircraft noise impacts of SAIP construction-related activities include the Centinela Valley Union High School District (Lennox), City of Los Angeles Unified School District, El Segundo Unified School District, Hawthorne School District, Inglewood Unified School District and Lennox Elementary School District.

SAIP-PC00006 - 80

Comment: GP 2-79. Section 4.1 and appendix S-C1 of LAX Master Plan Final EIR, or evolution of specific thresholds of significance for single event noise levels should be included. Copies of the draft of the CEQA Thresholds Guide should be included. Also not included are the 1985 Part I Noise Compatibility Program Copy. Also not included are the 28 abatement measures as approved by the FAA. CG

Response: Comment noted. Section 4.1 and Appendix S-C1 of the LAX Master Plan Final EIR are readily available for public review at LAWA and are available electronically at www.laxmasterplan.org. The 1985 FAR Part 150 Noise Compatibility Program is available for public review at LAWA. The CEQA Thresholds Guide is a part of the SAIP Draft EIR and Master Plan reference library. The documents are available for public review at:

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SAIP-PC00006 - 81

Comment: GP 2-80. There are seven (7) measures already approved but aren't being implemented. Since they're not being fully implemented, the base line used for your noise contours is completely inaccurate. CG

Response: It is unclear which Master Plan mitigation measures the commentor is referring to, but this response assumes that the comment refers to the mitigation measures associated with aircraft noise listed in Section 4.5.5.1 of the SAIP Draft EIR. These measures address long-term operational noise impacts associated with implementation of the LAX Master Plan, and are not intended to mitigate existing aircraft noise impacts. Several of these measures are currently in process. Existing commitments outlined in Section 4.5.5.1 associated with noise abatement procedures and sound insulation are incorporated within the 2003 Baseline operations and geographic mapping data. As stated in Section 4.5.1 of the SAIP Draft EIR, the environmental baseline for aircraft noise impact analysis reflects physical conditions that existed as of August 2004, the month in which the Notice of Preparation (NOP) was published. Data for 2003, the last full year available before the publication of the NOP, was used to develop the 2003 Baseline condition. 2003 operations data and modeling methodology are discussed in Section 4.5.3.1 and Appendix M (Section M.1.3.2) of the SAIP Draft EIR.

Please see Topical Response TR-SAIP-GEN-1 for a general discussion of the environmental baseline for noise impacts and Topical Response TR-SAIP-N-1 for a general discussion of off-airport noise impacts.

SAIP-PC00006 - 82

Comment: GP 2-81. The base line assumptions for night awakenings are FALSE. Therefore, everything related to that study must be restudied. CG

Response: It is unclear what element of the SAIP Draft EIR's analysis of nighttime awakening impacts due to aircraft noise during construction of the SAIP the comment identifies as "false." Nevertheless the comment is mistaken, as the methodology and assumptions used in the SAIP Draft EIR's analysis of nighttime awakening impacts are based upon data from detailed noise surveys of 2003 baseline conditions and projections of aircraft operations in the peak year of SAIP construction, as described in SAIP Draft EIR Section 4.5.3.1.3. Further, the results of those analyses were evaluated for significance using a threshold prepared in accordance with CEQA and based upon a comprehensive review of recent scientific research literature regarding awakenings.

In *Berkeley Keep Jets Over The Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, the court directed that the significance of single event noise effects be addressed in an EIR, but did not establish a required methodology for defining or assessing the significance of single event aircraft noise and did not set forth any standards of significance for the evaluation of such events. Furthermore, although the California Airport Land Use Planning Handbook generally discusses the relevance of single event noise to land use planning in the airport environs, it does not suggest thresholds of significance for application to these evaluations. As such, LAWA, as the lead CEQA agency for the LAX Master Plan Final EIR, developed thresholds of significance regarding single event noise effects, based on a comprehensive review of existing studies and research literature pertaining to the issue. (See discussion at Section 4.1 (subsection 4.1.2.1.3.1) of the LAX Master Plan Final EIR, and studies and research referenced therein on page 4-23 and 4-24.) The 94 dBA SEL was selected because it represents the level at which 10 percent of the population would be expected to be awakened at least once in ten days, a threshold geared toward a relatively small subset of the general population that may be particularly sensitive to single event noise as a cause of nighttime awakening). The reason for selecting this SEL as the threshold of significance for single event nighttime awakenings is that 10 percent of the population being awakened no more than once every 10 days is statistically equivalent to not more than 1 percent of the population being awakened on an average night. The threshold therefore recognizes the effect of a single event noise impacts on the most sensitive receptors of airport noise. (See Supplemental Aircraft Noise Technical Report, Appendix SC-1 to the LAX Master Plan Final EIR, page 140). A more comprehensive discussion related to the evolution of this threshold is available in Section 4.1.2.1.3.1 and Appendix S-C1 of the LAX Master Plan Final EIR. For consistency and full-disclosure reasons, the calculated 2003 impacts associated with sleep disturbance are addressed in Section 4.5.3.1.3 of the SAIP Draft EIR.

The FAA's Integrated Noise Model (INM) is used to compute a contour representing the sleep disturbance threshold. All flight operations that occurred in 2003 (collected by LAWA's noise monitoring system) are considered in the calculation of the 94 dBA SEL contour. The frequency of at least once in ten days represents a sum of all operations that carry a level of 94 dBA SEL. For example, if an operation occurred once in the year, it would have an average daily frequency of 0.003 events. If 33 events at the same level occurred during the course of the year, the frequency would sum to 0.1 operations. Therefore, the contour line is indicative of those locations where at least 33 separate events during the year with noise levels of 94 dBA SEL would occur. Even if an event occurred once per year, it would have been incorporated into the computation defining the contour line.

Relating to the baseline operational assumptions inputted into the INM, details are provided in Section 4.5.3.1 and Appendix M (Section M.1.3) of the Draft EIR. A full year of flight operations data serves as the basis for the INM input for 2003. The operations input for INM is identical to that used by LAWA's Noise Management Division to calculate the 4th Quarter 2003 (12-month) noise contour pursuant to Title 21 of the California Airport Noise Regulations.

Please also refer to Topical Response TR-SAIP-N-1 regarding noise impacts associated with the SAIP, and Responses to Comments SAIP-AL00005-71 through SAIP-AL00005-72.

SAIP-PC00006 - 83

Comment: GP 2-82. It is offensive that only churches are studied and not all faith based organizations. In addition, all churches are not even included. CG

Response: A listing of all the churches (or places of worship) is provided in Table M-11 in Appendix M of the SAIP Draft EIR. The SAIP Draft EIR noise analysis evaluated 218 places of worship. The last column of Table M-11 gives an indication of the type of faith practiced for each place of worship. Faith-based criterion was not used to select the facilities listed. The primary information used was parcel data and supplemental data provided by the County Assessor. If required, visual surveys were conducted. An update of all land use and noise-sensitive site information was conducted for the LAX Master Plan Final EIR. This information is also used to support noise impact analysis for the SAIP Draft EIR. The comment's reference to churches excluded from the list is unclear, because specific facilities are not mentioned.

SAIP-PC00006 - 84

Comment: GP 2-83. How do you justify that certain homes, residences and schools that are not currently experiencing 65 CNEL or greater noise levels will be impacted by the new plan; what measures are being taken to address that issue? CG

Response: As stated in Section 4.5.2.1.1 of the SAIP Draft EIR, aircraft noise is presented graphically as contour lines connecting points of equal noise exposure. Noise levels are higher within each contour interval moving toward the center of the noise source. The noise exposure contours are overlaid on maps of noise-sensitive land uses surrounding the airport to determine the areas and land uses exposed to significant noise.

The noise measure used in this analysis to describe annual average day noise levels is CNEL (Community Noise Equivalent Level), which is mandated by California law and accepted by the FAA for the evaluation of airport noise levels within the State of California. CNEL, an average sound level expressed in terms of average day A-weighted decibels (dBA) such as "65 dBA CNEL," or simply "65 CNEL," considers both the loudness and duration of the noise exposure. Noise exposure contours connecting points of equal noise exposure are used to locate the 65, 70, and 75 CNEL contours for annual average day conditions.

The CNEL metric applies mathematical penalties to evening and nighttime operations, inflating the actual amount of noise energy present in the airport environs to account for the greater sensitivity of underlying land uses in the quieter hours between 7 p.m. and 7 a.m. The calculation of CNEL includes an additional 4.77 dBA weighting to noise events occurring during the evening hours (7:00 p.m. to 9:59 p.m.) and an additional 10 dBA weighting during the nighttime hours (10:00 p.m. to 6:59 a.m.) to account for the increased annoyance of noise during those times.

CNEL noise contours and other noise computations (including single events) is developed for the 2003 Baseline and Project (2005) conditions using the Integrated Noise Model (INM), Version 6.1, the latest computer model for assessing aircraft noise developed by the FAA. Specifics related to INM and noise modeling are provided in Appendix M of the SAIP Draft EIR. The projected acreage, number of residences, noise-sensitive uses, and population within each noise contour were calculated by overlaying the noise contours into a Geographic Information System (GIS) land use database of the environs. The impacts are identified through a comparison between the Project (2005) contours to the 2003 Baseline. Section 4.5.6.1.2 of the SAIP Draft EIR states the results of the comparison and key operational factors that cause the difference between both scenarios. Exhibit 4.5-12 of Section 4.5 of the SAIP Draft EIR illustrates the Project (2005) 65 CNEL and the 2003 Baseline 65 CNEL. All land use parcels that are exposed to levels below 65 CNEL under 2003 Baseline conditions (solid line), but are exposed to 65 CNEL or greater levels during Project (2005) conditions (dashed line) are selected and clearly identified on the exhibit. The number of residential units and other noise-sensitive facilities located within the land use parcels are reported in Table 4.5-16 of the SAIP Draft EIR.

An increase of 1.5 CNEL or greater within noise-sensitive areas exposed to aircraft noise of 65 CNEL and higher in Project (2005) conditions compared with 2003 conditions is considered a

significant impact as well. For this EIR, the primary method for identifying significant changes in CNEL is the use of the 1.5 CNEL difference contour calculated in INM and GIS parcel data. INM calculates the 1.5 CNEL difference contour by comparing the difference between Project (2005) and 2003 Baseline CNEL values throughout the INM study area. Next, the model connects all points with a 1.5 CNEL increase. The 1.5 CNEL contour is overlaid on maps of noise-sensitive land uses surrounding the airport to determine the areas and land uses exposed to 1.5 CNEL or greater increases. Exhibit 4.5-13 of the Draft EIR illustrates the 1.5 CNEL contour (solid pink line) as well as the land use parcels that intersect or fall within this contour. Associated data for each parcel (population, dwelling units and other noise-sensitive facilities) are extracted and summarized in Table 4.5-17 of the SAIP Draft EIR.

As discussed in Section 4.5.8.1.1, no other operational measures that would reduce noise levels while maintaining available efficiency under a constrained three-runway condition were found to be feasible. There are no other feasible measures to move aircraft noise sources without further impacting the FAA's ability to maintain safe and expeditious flow of air traffic. Other measures to reduce noise impacts could involve converting incompatible land uses to compatible uses through sound insulation or the acquisition and conversion of incompatible land uses to compatible land uses. Such measures are typically time-consuming and costly to implement and would not be feasible to mitigate the short-term impacts of the SAIP. Additionally, several existing LAX Master Plan MMRP measures addressing modification of the noise-sensitive receptors for noise mitigation (e.g., soundproofing) are discussed in Section 4.5.5.1 of the SAIP Draft EIR including the Aircraft Noise Mitigation Program (ANMP). A majority of impacted noise-sensitive sites are located within the existing ANMP program as illustrated on Exhibit 4.5-10 of the SAIP Draft EIR, and may be eligible for sound insulation before or during the SAIP construction period. Although the current ANMP will be accelerated during the term of the SAIP as indicated in Mitigation Measure MM-LU-1, it is not anticipated that the program will be completed during the construction period due to the lengthy implementation process associated with soundproofing and the short-term and temporary nature of the SAIP-construction aircraft noise impacts. Due to the temporary nature of the aircraft noise impacts associated with SAIP construction and the time and cost associated with soundproofing dwelling units and educational institutions, however, the LAX Master Plan MMRP measures designed to modify the receptor to reduce aircraft noise impacts are not feasible to reduce the short term impacts of the SAIP. Because these measures (or those similar in nature) are not feasible to reduce temporary and short-term aircraft noise impacts of the SAIP, the aircraft noise exposure impacts are expected to be significant and unavoidable. Additionally, the SAIP Draft EIR acknowledges that a few noise-sensitive sites would be significantly impacted and are not located within the existing ANMP boundary. These sites would also be significantly and unavoidably impacted throughout the term of the construction period.

Please also see Topical Response TR-SAIP-N-1 for a general discussion of off-airport noise impacts.

SAIP-PC00006 - 85

Comment: GP 2-84. Specific noise studies that include "single event" and "time above" level impacts should be included and mitigated for both runways and center taxiway, to include topography and transmission details at all frequencies. CG

Response: Please see Responses to Comments SAIP-PC00006-79 and SAIP-PC00006-82 regarding single event impact thresholds associated with nighttime awakenings and classroom disruption. Survey of scientific research related to noise transmission for all frequencies and its effects on nighttime awakenings and classroom disruption did not reveal specific recommendations or guidelines related to specific impact thresholds. Regarding sound frequency, weighted curves were developed to correspond to the sensitivity and perception of the human ear to different types of sound. A-weighting accounts for frequency dependence by adjusting the low and high frequencies to approximate the human ear's sensitivity to those frequencies. Most of the research surveyed involves the use of A-weighted sound levels. C-weighted sound accounts for lower frequencies that are typically not audible by the human ear. There is no standard of significance established for low frequency noise because there is no accepted correlation between low frequency noise and community disturbance, classroom disruption and nighttime awakenings.

Regarding topography, Subtopical Response TR-N-3.5 in the LAX Master Plan Final EIR addresses concerns regarding altitude and noise of aircraft when overflying areas that are located on higher elevations of ground surface. While the elevation of an area directly under flight paths may result in a slight difference between the modeled noise level and that actually experienced in areas of large differences in elevation, the relative flatness of the land surrounding the airport (within the study area) provides little to no elevation effect.

Please refer to Section 4.5.5.1 of the SAIP Draft EIR, which discusses the LAX Master Plan Commitments and Mitigation Measures associated with single-event aircraft noise impacts.

SAIP-PC00006 - 86

Comment: Chapter IV.
4.6 Biotic Communities:

GP 2-85. Ballona West Bluff is superior to El Toro for habitat restoration. The Bluff is far closer to the airport than El Toro and thus shares the same climate and soil and other environment attributes as the airport site. Furthermore, the Bluff possesses significant restoration value, and ensures the survivability of sensitive and threatened species found on airport property. CG

GP 2-86. In light of the intense development planned for EL Toro, it will imperil endangered and threatened species to transfer them to properties which may soon be commercially developed. CG

Response: Topical Response TR-ET-2 in the LAX Master Plan Final EIR provides a discussion of potential sites identified for vernal pool restoration or creation to mitigate impacts to wetlands associated with the LAX Master Plan. As discussed in Section 5.5.4, of the SAIP Draft EIR, the SAIP would not result in any impacts to wetlands. As described in Section 4.11 of the LAX Master Plan Final EIR, a feasibility assessment was undertaken to determine conservation sites available for the deposition of Riverside fairy shrimp cyst-bearing soils. As a result of this assessment the West Bluff of the Ballona wetland ecosystem was eliminated for relocation of Riverside fairy shrimp cysts due to the significantly high cost associated with acquiring the properties for purposes of relocating the embedded cysts.

Site description, including location and site characterization of the FAA owned habitat preserve at the former MCAS El Toro were described in Section 4.6.8. As described therein, the 995 acre habitat preserve where habitat restoration activities are proposed is owned by the FAA and managed by the U.S. Fish and Wildlife Service.

SAIP-PC00006 - 87

Comment: Chapter V.
5.10 Hazards and Hazardous Materials

GP 2-87. LAX was built prior to the establishment of the FAA current design standards for airports serving large commercial jets. For this reason, not all the safety areas and safety zones surrounding the 4 LAX runways, meet today's recommended dimensions for airport development. CG

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00006 - 88

Comment: GP 2-88. The SAIP specifically violates the Runway Protection Zone as established by the FAA, by now enclosing residences within the SAIP RPZ. CG

Response: As addressed in the Master Plan and the Master Plan EIR, the relocation of Runway 7R-25L will not introduce new residential structures into the Runway 7R-25L RPZs, as defined by the existing Airport Layout Plan (ALP) for LAX. (Please see Topical Response TR-SAIP-PD-2 regarding the

relationship of the SAIP tiered EIR and the LAX Master Plan EIR.) FAA determines safe operating parameters for airport runways according to the United States Standard for Terminal Instrument Procedures (TERPS). Appropriate, safe flight procedures for a given runway and limitations to its use are determined based on the real-world presence of terrain, structures and other factors affecting air navigation in a particular location. Having considered all factors and site constraints, the FAA granted unconditional approval for the LAX Master Plan ALP and has accordingly, as described in the FAA Record of Decision for the Proposed Master Plan Improvements, dated May 20, 2005, performed airspace reviews to assess compliance of the Master Plan ALP, including the SAIP's compliance with FAA standards.

Please also see Responses to Comments SAIP-PC00007-17 and SAIP-PC00022-14 for additional discussion regarding the relationship of the SAIP to the existing Runway Protection Zones at LAX.

SAIP-PC00006 - 89

Comment: Chapter V.
5.13 Schools:

GP 2-89. Does anyone anywhere believe that noise in a classroom does not hinder the educational process? What could possibly be a replacement threshold other than no learning disruptions? What school districts will be your study area? What mitigation measures will be implemented? CG

Response: The content of this comment is essentially the same as comment SAIP-PC00006-79; please refer to Response to Comment SAIP-PC00006-79.

As stated in Section 4.5.6.4 of the SAIP Draft EIR, there would be significant short-term aircraft noise classroom disruption impacts (approximately 8-12 months duration), primarily due to the closure of Runway 7R-25L. As summarized in Section 4.5.5.1 of the SAIP Draft EIR, the following Master Plan mitigation measures for classroom disruption impacts would address long-term operational noise impacts associated with implementation of the LAX Master Plan: MM-LU-3, Conduct Study of the Relationship Between Aircraft Noise Levels and the Ability of Children to Learn and MM-LU-4, Provide Additional Sound Insulation for Schools Shown by MM-LU-3 to be Significantly Impacted by Aircraft Noise. Because current studies of aircraft noise and the ability of children to learn may not have resulted in development of a statistically reliable predictive model of the relative effect of changes in aircraft noise levels in learning, Mitigation Measure MM-LU-3 provides for further comprehensive study of any such measurable relationship. Mitigation Measure MM-LU-4 involves interior classroom measurements for schools that could be newly exposed to noise levels that exceed the interim LAX interior thresholds as compared to the LAX Master Plan Final EIR 1996 baseline condition for classroom disruption. The interim thresholds used in the LAX Master Plan Final EIR and this SAIP Final EIR will be used if MM-LU-3 is not completed. Measurements are to be conducted within 6 months of re-commissioning Runway 7R-25L. Schools found to exceed the interim thresholds via measurements will be made eligible under the revised ANMP program per Mitigation Measure MM-LU-1.

SAIP-PC00006 - 90

Comment: GP 2-90. More studies and mitigation measures must be implemented related to impacts on schools during school hours. CG

Response: Section 4.5.5.1 of the SAIP Draft EIR discusses all the LAX Master Plan Commitments and Mitigation Measures associated with reducing aircraft noise impacts. Those measures, along with the ability of each measure to mitigate SAIP aircraft noise impacts on schools are as follows:

- MM-LU-1: LAWA shall revise and expand the ANMP program in coordination with affected neighborhood jurisdictions, the State and the FAA. The expanded program shall mitigate land uses that would be rendered incompatible by noise impacts associated with implementation of the LAX Master Plan. This measure also includes expediting the existing Program pursuant to California Code of Regulations Title 21 and the current Noise Variance. The ANMP program is designed to achieve full compatibility of all land uses within the existing noise impact area through (1) sound insulation of structures and (2) the acquisition and conversion of incompatible land use to compatible land use. Although the ANMP will be accelerated during the term of the SAIP, it is not

anticipated that the program will be completed during the construction period due to the lengthy implementation process for Mitigation Measure MM-LU-1 and the short-term and temporary nature of the construction aircraft noise impacts. Therefore, this measure is not applicable to reducing temporary and short-term aircraft noise impacts while Runway 7R-25L is closed. The ongoing ANMP will continue to offer sound insulation to eligible dwellings identified within the 1992 65 CNEL noise exposure area.

- MM-LU-3: LAX Master Plan Mitigation Measure MM-LU-3 is a study of the relationship between aircraft noise levels and the ability of children to learn. Use of current studies of aircraft noise and the ability of children to learn may not have resulted in development of a statistically reliable predictive model of the relative effect of changes in aircraft noise levels in learning. Mitigation Measure MM-LU-3 provides for further comprehensive study of any such measurable relationship between aircraft noise levels and the ability of children to learn. An element of this study shall be the setting of an acceptable replacement threshold of significance for classroom disruption by both specific and sustained aircraft noise events. This study is not expected to be completed prior to completion of the SAIP. Therefore, this measure is not considered to be feasible for mitigating SAIP aircraft noise impacts.

- MM-LU-4: Prior to completion of the study required by Mitigation Measure MM-LU-3, and within six months of the commissioning of any relocated runway associated with implementation of the LAX Master Plan, LAWA shall conduct interior noise measurements at schools that could be newly exposed to noise levels that exceed the interim LAX interior noise thresholds as compared to the 1996 baseline conditions for classroom disruption of 55 dBA Lmax, 65 dBA Lmax, or 35 Leq(h), as presented in Section 4.1 of the LAX Master Plan Final EIR. As required by this measure, LAWA would conduct interior measurements within six months of the re-commissioning of Runway 7R-25L. Those schools with measurements exceeding interim LAX interior noise thresholds would become eligible for soundproofing under the revised ANMP program per Mitigation Measure MM-LU-1. Applicability of this measure is directly related to MM-LU-1. Although the ANMP will be accelerated during the term of the SAIP, it is not anticipated that the program will be completed during the construction period due to the lengthy implementation process for Mitigation Measure MM-LU-1 and the short-term and temporary nature of the construction aircraft noise impacts. Therefore, this measure is not applicable to reducing temporary and short-term aircraft noise impacts while Runway 7R-25L is closed.

Section 4.5 (subsection 4.5.8.1) discusses potential mitigation of aircraft noise impacts associated with SAIP construction. Because the airport, which typically operates with four-runways, would be limited to three runways during project construction, additional effective and safe measures to abate or move the noise sources during construction via alternate runway use or routing options are limited to those already incorporated for SAIP. No other operational measures that would reduce noise levels while maintaining available efficiency under a constrained three-runway condition were found. Under these circumstances, there are no other feasible measures to move aircraft noise sources without further impacting the FAA's ability to maintain safe and expeditious flow of air traffic. In lieu of modifying the source, measures to reduce noise impact may involve converting incompatible land uses to compatible uses through sound insulation or the acquisition and conversion of incompatible land uses to compatible land uses. Such measures are typically time-consuming and costly to implement. Several existing LAX Master Plan MMRP measures addressing modification of the noise-sensitive receptors for noise mitigation (e.g., soundproofing) were discussed above in Section 4.5.5.1. Due to the temporary nature of the aircraft noise impacts associated with SAIP construction and the time and cost associated with soundproofing dwelling units and educational institutions, the LAX Master Plan MMRP measures designed to modify the receptor to reduce aircraft noise impacts are not feasible. Although the current ANMP will be accelerated during the term of the SAIP as indicated in MM-LU-1, it is not anticipated that the program will be completed during the construction period due to the lengthy implementation process associated with soundproofing and the short-term and temporary nature of the SAIP-construction aircraft noise impacts. Therefore, these measures (or those similar in nature) are not feasible to reduce temporary and short-term aircraft noise impacts while Runway 7R-25L is closed. The aircraft noise exposure impacts are expected to be significant and unavoidable. Section 4.5 (subsection 4.5.6.4) summarizes the level of significant and unavoidable impacts associated with SAIP.

Please also see Topical Response TR-SAIP-N-1 for a general discussion of off-airport noise impacts.

SAIP-PC00007 Anderson, Michael H. LAX Master Plan Stakeholder 9/10/2005
Committee - Group 3

SAIP-PC00007 - 1

Comment: General Comments:

GP 3-1. What is the expected life of the runway? CG

Response: Most airfield pavements are designed in accordance with FAA guidelines (FAA Advisory Circular 150/5320-6D, Airport Pavement Design and Evaluations), which call for a useful life of 20 years. The SAIP improvements would be designed to meet or exceed the 20-year guideline. The FAA also recommends the use of life-cycle analyses to determine if longer pavement design lives (over 20 years) are cost effective.

SAIP-PC00007 - 2

Comment: GP 3-2. Does the SAIP accommodate new large aircrafts? CG

Response: The content of this comment is essentially the same as comment SAIP-PC00005-3; please refer to Response to Comment SAIP-PC00005-3.

SAIP-PC00007 - 3

Comment: GP 3-3. Why is it that LAWA is building a new runway instead of just improving the current runway?
CG

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00007 - 4

Comment: GP 3-4. How much is the SAIP going to cost? CG

Response: Section 5.2.4 and Table 5-1 on page V-8 of the SAIP Draft EIR presented the estimated cost of the SAIP. This estimate was based on information available at the time of the preparation of the SAIP Draft EIR. LAWA has continued to refine these figures and is currently holding a project budget of \$328,000,000 in LAWA's Capital Improvement Program (CIP). This budget for the SAIP includes construction costs and other "soft" costs that account for non-related construction costs such as planning, engineering, management, construction support (administration, testing, supervision), and post construction services.

SAIP-PC00007 - 5

Comment: GP 3-5. How will LAWA accommodate the A380 during construction? CG, OA

Response: Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and other new large aircraft (NLA). Construction is scheduled to commence in January of 2006. Runway 7R-25L will be closed to operations for 8-months during the projected 14-month construction period. The first of the NLA, the A380, will not go into service at LAX until 2007, after construction on Runway 7R-25L has been completed. It is not anticipated that once Runway 7R-25L has been reopened that remaining SAIP construction activity will have any impact on aircraft operations at the airport.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00007 - 6

Comment: GP 3-6. Without answers to specific questions about details of the project, all concerns cannot be addressed. Especially since all comments and questions must be submitted by September 15, 2005. Answers to specific questions may have sparked further questions. CG

Response: CEQA provides that the public be given an opportunity to review and comment on a Draft EIR. The public review period is an opportunity for members of the public to voice their questions and concerns. In accordance with CEQA, written responses to all comments timely received on the SAIP Draft EIR during the prescribed comment period (which closed on September 15) are provided in this Final EIR. CEQA does not require an additional comment period in which further questions generated by responses to original comments on the SAIP Draft EIR must be addressed.

The Final EIR is available for public review prior to its certification. Please also see the Introduction to these Responses to Comments for a further explanation of this process.

SAIP-PC00007 - 7

Comment: GP 3-7. An executive summary or condensed version of each chapter of the EIR would be helpful and easier to read. CG

Response: Comment noted. CEQA Guideline 15123 requires EIRs to contain brief overall summaries of proposed actions and any resulting consequences. However, chapter summaries are not required. The SAIP Draft EIR contains an Executive Summary, consistent with CEQA's requirements, in Chapter 1.

SAIP-PC00007 - 8

Comment: GP 3-8. Will the project trigger any mitigation measures in the surrounding communities under the flight path? OFF

Response: The SAIP will not result in implementation of any mitigation measures in surrounding communities under the flight path. Impacts related to aircraft noise were addressed in LAX Master Plan Commitment N-1, Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program. However, even with LAX Master Plan Commitment N-1 in place, the changes in aircraft noise exposure resulting from construction activities related to the SAIP are expected to result in significant impacts due to the temporary closure of runway 7R/25L and the resulting distribution of remaining traffic to the other three runways. Several LAX Master Plan Mitigation Measures address reduction of aircraft noise through installation of sound insulation (i.e., sound proofing) in affected homes and schools. Unfortunately, such measures are typically time consuming and prohibitively expensive to implement. Due to the temporary nature of the aircraft noise impacts associated with the SAIP and the time and cost associated with soundproofing, the LAX Master Plan Mitigation Measures designed for this purpose are not feasible to implement. The aircraft noise exposure impacts are expected to be significant and unavoidable. Mitigation measures related to noise impacts are discussed in Sections 4.5.5 and 4.5.8 of the SAIP Draft EIR.

SAIP-PC00007 - 9

Comment: GP 3-9. How does the project address the pilot/controller error, which has been stated to be the cause of a majority of the runway incursions? CG

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. Please also see Responses to Comments SAIP-AL00005-52 through SAIP-AL00005-54 and SAIP-AL00005-57 through SAIP-AL00005-65.

SAIP-PC00007 - 10

Comment: GP 3-10. Does the project reduce the number of go-arounds or missed approaches? Please quantify? CG

Response: Missed approaches primarily happen as a result of poor visibility (below the operating minima in terms of ceiling and visibility) and when another aircraft is occupying the intended landing runway. While the primary purpose of the SAIP is to reduce the potential for runway incursions, it can be inferred that by reducing the potential for these mishaps, the project could contribute to the reduction of missed approaches. It is not feasible to quantify the expected reduction in these events, however.

SAIP-PC00007 - 11

Comment: GP 3-11. Can taxiway K be redesigned to help reduce pilot/controller error? Recommend jog so there is no straight path to taxiway B, thereby reducing the potential for incursions. CG, OA

Response: This comment does not raise an environmental impact or CEQA issue, but rather addresses future operational decisions regarding the airfield. Accordingly, no further response is required. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

As has been documented independently by LAX, the FAA and NTSB, runway incursions at LAX, while more prevalent in the South Airfield, are not restricted to a specific exit taxiway. Rather, the frequency and therefore likelihood of runway incursions at LAX South Airfield, is distributed among most of the exit taxiways.

The SAIP addresses the potential for runway incursions by partially reconfiguring the airfield. Specifically, all exit (acute and right-angled) taxiways will be reconfigured to remove the potential for aircraft exiting Runway 25L accidentally encroaching onto Runway 25R.

The commentor suggests that runway incursions can be mitigated by simply modifying the layout of Taxiway K. The reconfiguration of Taxiway K would, as suggested by the commentor, include an abrupt jog or turn to prevent the accidental encroachment of an aircraft into the departure runway. This jog will position the aircraft parallel to the runways and in essence would be a portion of the proposed center taxiway. Moreover, the modification of Taxiway K with a partial center taxiway would only address runway incursions on this specific taxiway and would not address the potential for runway incursions at other taxiways in the South Airfield of LAX and would only possibly address the runway incursions that occur at Taxiway K.

SAIP-PC00007 - 12

Comment: GP 3-12. What specific training is being conducted to prevent construction vehicle/aircraft accidents/incidents? What safety plans are available and who is implementing them? OA

Response: During the implementation of the SAIP all construction areas will be clearly demarcated by low-height lighted barricades. Marking and other pavement striping leading to a temporarily closed operating area (runway/taxiway) will be obliterated and enhanced by placement of closed taxiway and closed runway markings. All measures will be in accordance with the Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370-2E "Operational Safety on Airports during Construction."

All contractor personnel driving on the airfield will be required to attend course training, take a written exam and spend eight (8) hours with a licensed driver in the airfield.

LAX Operations will issue Notice-to-Airman (NOTAMS) broadcasting to the piloting community of the current operating rules at the airports. Further, LAWA's Construction Manager will closely coordinate with LAX Operations, LAX Airport Traffic Control (ATC) personnel on the progress of the construction and the interfaces of construction and aircraft operations.

The contractor, as a requirement of the FAA, will prepare a Safety Plan and will appoint an individual, part of the management team, as a Safety Officer. This is prescribed in the Construction Contract conditions.

SAIP-PC00007 - 13

Comment: GP 3-13. What is the status of the FAA's approval of this project? What documents have been submitted and what still needs to be submitted? CG

GP 3-14. What happens if the project does not get approved? OA

GP 3-15. What happens if the project is delayed beyond 2006 (airline operational concerns)? OA

Response: It is unclear whether the commentor is referring to FAA approval of the Runway 25L relocation or approval of the SAIP. The proposed relocation of the Runway 25L is reflected on the Airport Layout Plan approved by the Federal Aviation Administration (FAA) in conjunction with issuance of the Record of Decision in May 2005. As such, the necessary approval by the FAA for the Runway 25L relocation has been received. The subject project is adequately addressed under the National Environmental Policy Act (NEPA) within the LAX Master Plan Improvements Final EIS, and no further environmental review under NEPA is required for the project as proposed.

In the event the proposed SAIP Project is not approved, the project-related environmental impacts described in the SAIP Draft EIR would not occur. Please see Response to Comment SAIP-PC00007-15 below for additional discussion regarding the risk of runway incursions that would remain should the proposed Project not be implemented.

It is unclear what the commentor's concern is relative to "What happens if the project is delayed beyond 2006 (airline operational concerns)." It is the intent and desire of LAWA to complete the proposed SAIP improvements as soon as possible, so as to address the existing runway incursion hazard accordingly. Please see Topical Response TR-SAIP-PD-1 regarding the purpose of, and need for, the proposed SAIP.

SAIP-PC00007 - 14

Comment: GP 3-16. How will the project be financed? (PFC)? CG, OA

GP 3-17. What are the fee impacts to the airlines? OA

Response: This project is eligible for Federal funding through the FAA AIP program, which for this type of project and for an air carrier airport, such as LAX, could reach up to 75% of the project cost. The balance of the funding has not been determined at the time of publication of the SAIP Final EIR; however it could include passenger facility charges and/or LAX revenue funds. Use of funds from LAX revenue may require adjustment to landing fees that are paid by airlines that operate at LAX. No Los Angeles General Fund dollars will be used to pay for any of the proposed improvements.

SAIP-PC00007 - 15

Comment: GP 3-18. How does LAWA intend to deal with incursions if the project does not go forward? CG

Response: In the event the SAIP is not approved, LAWA will, in consultation with the Federal Aviation Administration (FAA), continue to implement airfield and air traffic control policies and procedures intended to minimize the risk of runway incursions. Inasmuch as physical improvements to the south airfield runway and taxiway system provide a more effective and desirable means of addressing the potential for runway incursions than relying solely on the types of policies and procedures described above, and given the fact that such improvements are called for in the LAX Master Plan, LAWA may consider in the future a new proposal for runway/taxiway improvements, should the current proposal not be approved.

SAIP-PC00007 - 16

Comment: GP 3-19. In the August 5, 2005 news release, FAA requested LAWA to develop and implement temporary, short term measures to minimize incursions. What was developed and what has been implemented? CG

Response: The commentor refers to an item published by LAWA in its August 5, 2005 newsletter. The information released in that newsletter was in error. Nonetheless, LAWA has taken many steps to minimize the runway incursions. The following illustrates those efforts made by LAWA over the last 11 years to increase safety at the airport:

- 1994 - Re-aligned Taxiway C-10 to prevent direct access to Runway 25R/7L.
- 1996 - Began publishing Runway Incursion Alert Bulletins to educate pilots and air carrier communities.
- 1998 - Began presentations to chief pilot forums to communicate runway incursion cautions.
- 1998 - Began steam cleaning lamps every 2-3 week period.
- 1998 - Began refreshing markings by re-painting or steam cleaning every 2-3 week period.
- 1998 - Began contrasting the standard white runway edge markings in black paint.
- 1998 - Began publishing runway incursion posters denoting runway incursion areas with cautions to educate all aviation employees.
- 1999 - Doubled the size of Runway Holding Position Markings (12" wide in yellow paint with 12" black paint outline) at all runway/taxiway intersections.
- 1999 - Painted on surface Runway Holding Position Signs, white on red paint, at all runway/taxiway intersections.
- 1999 - Developed airport layout handout with runway hold short areas for tug drivers, taxi mechanics and others that will operate on taxiways or cross runways.
- 1999 - Developed airport layout familiarization program to educate tug drivers, taxi mechanics and others that will operate on taxiways or cross runways.
- 1999 - Added a line to the Daily Airfield Operations Inspection checklist to emphasize and correct faded paint or inoperative lighting in crucial areas.
- 1999 - Installed 120 watt bulbs in the in-pavement hold lines with alternating flashing lights.
- 1999 - Added 120 watt Elevated Runway Guard Lights (ERGL) at the 46 most crucial runway/taxiway intersections and will add 5 more sets of lights to cover all 51 intersections.
- 1999 - ERGL placed on a separate circuit from taxiway lights and set to run for 24 hours.
- 1999 - Began painting all ERGL faces in black paint to contrast and accent amber lights. Increased wattage in all in-pavement hold-bar lights.
- 2000 - Began implementation of Tug and Tow Driver Familiarization Program.
- 2000 - Runway Incursion Map distributed to Chief Pilots around the world of air carriers with LAX operations.
- 2001 - Completed lighting project that extend in-pavement hold bar lights full width and upgraded ERGLS at every runway/taxiway intersection.
- 2001 - A virtual model of LAX was constructed and run to 4/2001 to simulate aircraft operations. Sessions with LAX Air Traffic Control personnel conducted to gather baseline data on Air Traffic Control procedures and research runway incursion prevention measures without affecting actual air commerce.
- 2002 - Software and electrical mechanisms upgraded for flashing mechanism of in-pavement and elevated runway guard lights systems.
- 2003 - Distributed "Pilot's Perspective" instructional Compact Disc to educate pilots flying into and out of LAX on problematic runway incursion areas.
- 2005 - LAWA engaged the Jeppesen-Sanderson Company, publisher of many pilot maps and navigational aids, on how to best represent and promulgate information on runway incursions on pilot maps.

SAIP-PC00007 - 17

Comment: Chapter II.
2.1 LAX Master Plan's South Airfield Improvement Project:

GP 3-20. What is the impact of the SAIP to the clear zone (RPZ)? OFF

GP 3-21. As a result of the shift of runway 25L/7R will the Proud Bird be located within the clear zone? OFF

GP 3-22. As a result of the shift of runway 25L/7R will any other buildings now be in the clear zone? CG

Response: The Runway Protection Zones (RPZ) associated with Runway 7R-25L will maintain the same dimensions and shape that they currently have. However, the location of the RPZs associated with Runway 7R-25L is shifted south the same distance as the runway endpoints as the location of each RPZ is determined by the location of each runway end point. These surfaces are defined in the Federal Aviation Administration Advisory Circular 150/5300-13 "Airport Design." This shift in the RPZ was already accounted for as part of the LAX Master Plan approvals, and is reflected in the Airport Layout Plan (ALP) approved by the FAA by the issuance of a Record of Decision for the Proposed LAX Master Plan Improvements, dated May 20, 2005. Implementation of the SAIP is consistent with the LAX Master Plan and the Land Use analysis presented in the LAX Master Plan Final EIR, see Section 4.2, Land Use. Please see Topical Response TR-SAIP-PD-2 for additional information regarding the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR.

As depicted in the LAX ALP, the Proud Bird restaurant would not be located within the Runway 25L RPZ that is based on the relocated runway associated with the SAIP. The south boundary of the RPZ will be located north of the Proud Bird building.

Please also see Response to Comment SAIP-PC00022-14 for additional discussion regarding the relationship of the SAIP to the existing RPZs at LAX.

SAIP-PC00007 - 18

Comment: Chapter III.
3.1 Los Angeles Regional Airport System:

GP 3-23. Has LAWA decided where security will be set-up for the construction staging area? OA

GP 3-24. Where will the security for the staging area be? OA, CG

GP 3-25. What is the background check procedure for proposed construction personnel? OA, CG

GP 3-26. It is recommended that LAWA provide a security screening plan for all inbound cargo/delivery/construction vehicles who have access to the AOA. OA, CG

Response: The proposed contractor staging area includes a Secured Access Post (SAP) to screen all construction traffic. The SAP will be staffed by LAX Airport Police and will follow the same requirements as with any other access post to the Airfield Operating Areas (AOA).

A small portion of the staging area will be located outside of the AOA fence and will therefore be non-secured. This area will be limited to the contractor's offices and visitor parking. All other operations will be located within the secured area inside of the AOA fence. As noted above, access to this secured area will be through the post, which will be staffed by Airport Police and will be outfitted with rolling gates, closed circuit television, alarms, hydraulic arms, access to LAWA's virtual network, and other security measures.

All personnel entering the AOA will have to have a valid LAX badge. Only temporary delivery drivers will be exempt of this requirement; however, these vehicles and drivers will be escorted at all times. This is consistent with current security and operating procedures at LAX.

LAX requires fingerprinting and a background check for all LAX badge applicants. Again, this is no different than the requirements for all other airport personnel.

The Construction SAP will meet all the requirements currently imposed for all delivery vehicles.

SAIP-PC00007 - 19

Comment: Chapter IV.
4.1 Hydrology and Water Quality:

GP 3-27. With regards to the hydrology concerns regarding flooding (drainage erosion), what are the mitigation measures or what is being done to address these concerns? CG

Response: Measures to mitigated hydrology/drainage impacts are described in Section 4.1.5 of the SAIP Draft EIR. As discussed on page IV-26 in Section 4.1.6.1 of the SAIP Draft EIR, implementation of the proposed Project would not result in any significant onsite (i.e., on-airport) impacts. As indicated on page IV-33 in Section 4.1.7 of the SAIP Draft EIR, the proposed Project, in conjunction with other projects, would contribute to a significant cumulative impact to drainage facilities within the Dominguez Channel Watershed. Mitigation Measure MM-HWQ-1 from the LAX Master Plan Final EIR will address this cumulative impact. This mitigation measure would also apply to the SAIP. Mitigation Measure MM-HWQ-1 requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works to upgrade regional drainage facilities in order to accommodate future peak flows resulting from cumulative development. With implementation of this measure, cumulative drainage impacts resulting from the proposed project, in conjunction with past and present projects, could be mitigated to a level of insignificance.

Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00007 - 20

Comment: GP 3-28. What happens if LA County and the other referenced agencies do not take the suggested actions in HWQ-1? CG

Response: Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. As indicated on page IV-33 in Section 4.1.8 of the SAIP Draft EIR, the cumulative hydrology/drainage impact identified in the Draft EIR would remain significant and unavoidable if the agencies with jurisdiction do not resolve deficiencies in regional drainage infrastructure having insufficient capacity to convey storm water (i.e., if MM-HWQ-1 is not implemented).

SAIP-PC00007 - 21

Comment: GP 3-29. What is LAWA's plan to address the loss of 42 acres of pervious surfaces and can they mitigate that by providing pervious surfaces within the LAX boundaries? CG

Response: Please see Response to Comment SAIP-AL00005-40 regarding potential hydrology and water quality impacts associated with the decrease in impervious surfaces and Response to Comment SAIP-AL00004-15 regarding potential impacts to groundwater as a result of this decrease.

SAIP-PC00007 - 22

Comment: Chapter IV.
4.2 Off-Airport Surface Transportation:

GP 3-30. How will motorists be advised (specific communication methods) of construction traffic and what is the airport willing to commit to? OFF

Response: The Ground Transportation/Construction Coordination Office will be responsible for monitoring traffic conditions and advising motorists and those making deliveries about detours and congested areas. Specific means of communication proposed to be used by LAWA and the Ground Transportation/Construction Coordination Office to relay information to motorists include (a) a construction traffic link provided at www.LAWA.org to provide up-to-date information on construction projects, lane closures, and detours, (b) public information messages broadcast via AirRadio (AM

530), and (c) portable, electronic changeable message signs and static signs. Although lane closures and detours along public roadways will not be required as part of the SAIP construction, LAWA will have these communications tools in place for SAIP and other LAX projects unrelated to the SAIP.

SAIP-PC00007 - 23

Comment: GP 3-31. The Master Plan commitments do not seem to have any enforcement mechanism. They must. For example in section 4.2.5, ST-12 states "truck traffic will be encouraged to use night time hours" but it is not required. CG

Response: Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, and compliance and enforcement provisions to help LAWA ensure that SAIP contractors comply with traffic-related contract requirements. Please also see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00007 - 24

Comment: Chapter IV.
4.3 Air Quality:

GP 3-32. How much will emissions be increased due to planes holding on the new proposed taxiway? CG

Response: Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. As stated in Section 4.3.6.1.2 of the SAIP Draft EIR, aircraft taxi and queue times are expected to increase relative to the environmental baseline during the construction of the SAIP due to the closure of Runway 7R-25L. Once construction of the SAIP has been completed and Runway 7R-25L is re-opened, average aircraft taxi and idle times are expected to be similar to or slightly lower than those experienced today. The opening of the center taxiway is not anticipated to significantly affect average aircraft taxi and idle times nor is it expected to affect overall airport capacity. Accordingly, the SAIP will not materially increase emissions in the long-term due to planes holding on the new taxiway. Please see Response to Comment SAIP-PC00006-68 regarding changes in aircraft brake and tire wear emissions.

SAIP-PC00007 - 25

Comment: GP 3-33. The end-around taxiway alternative would likely reduce emissions because planes could arrive at the gates more quickly during peak periods. OA

Response: As stated on page II-8, Section 2.2.3, End-Around Taxiway Concept Evaluation, of the SAIP Draft EIR, the end around taxiway options resulted in greater taxi distances and hence higher pollutant emissions, which would imply a decrease in air quality. Also, as stated on page II-8, Section 2.2.3, End-Around Taxiway Concept Evaluation, of the SAIP Draft EIR, the end around taxiway design options resulted in the greatest average taxi delay times. Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00007 - 26

Comment: GP 3-34. Would a 10 ft. fence be sufficient to address fugitive dust that may impact the El Segundo blue butterfly conservation area (Fence height was referenced in a mitigation measure). CG

Response: Measures intended to reduce fugitive dust emissions by 90 to 95 percent during construction activities adjacent to the El Segundo blue butterfly Habitat Restoration Area were addressed in Section 4.6, Biotic Communities, and 5.4, Endangered and Threatened Species of Flora and Fauna, of the SAIP Draft EIR. Construction of a 10-foot-high, tarped chain-link fence where construction or staging areas are adjacent to state-designated sensitive habitats, including the El Segundo blue butterfly Habitat Restoration Area, is a component of Mitigation Measure MM-BC-1, one of several

measures to reduce construction-generated dust. Mitigation Measure MM-BC-1 is a "performance standard" type of mitigation measure. As permitted under CEQA (CEQA Guidelines Section 15126.4 (a)(1)(B)), this mitigation measure sets a performance standard of reducing fugitive dust emissions at LAX during construction by 90 to 95 percent, and lists methods of dust control, including the construction of a 10-ft high fence. Significant impacts to the Los Angeles/EI Segundo Dunes from construction activities would be mitigated to less than significant levels through implementation of LAX Master Plan mitigation measures consisting of construction-related air quality measures (MM-AQ-2), construction avoidance, and ongoing maintenance and management efforts within the dunes (MM-BC-1), habitat restoration (MM-ET-2), and dust control (MM-ET-3).

SAIP-PC00007 - 27

Comment: GP 3-35. Is there a mitigation measure or a Master Plan commitment to address dust created by rock crushing? If there is, which one? CG

Response: There is no specific mitigation measure or Master Plan commitment to address dust created by rock crushing; however, the rock crusher will be outfitted with a filter to prevent fugitive dust emissions. LAWA and its contractors would also comply with South Coast Air Quality Management (SCAQMD) Rule 1157, PM10 Emission Reductions from Aggregate and Related Operations, which requires dust control methods on crushers, cement batch plants, and other facilities that involve the handling of sand, gravel, cement, crushed stone, or quarried rocks.

Air quality mitigation measures that have been proposed for the SAIP are summarized in Section 4.3.5 of the SAIP Draft EIR. Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

Please see Response to Comment SAIP-AL00005-37 regarding the development of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP) and the Mitigation Plan for Air Quality (MPAQ). LAWA is in the process of finalizing the MPAQ. The MPAQ will be completed prior to construction of the SAIP and applicable components of the MPAQ will be made conditions of approval of the SAIP.

SAIP-PC00007 - 28

Comment: GP 3-36. What specific activities will be taking place in the staging area for the SAIP? OA

Response: The staging area is being provided to the contractor and the rest of the construction team to house field offices, temporary storage of construction equipment and materials, production of Portland Cement Concrete (PCC) and other PCC-related products such as Econcrete, and temporary storage of surplus removed materials and waste – before their final disposal and recycling operations (crushing).

LAWA will also provide field offices for construction material testing, construction management, inspection and construction support from the designer. A small area will be reserved for visitor parking and circulation of equipment and delivery vehicles.

The staging area will also house a new Construction Security Post to screen all vehicles entering the Airfield Operating Area (AOA).

SAIP-PC00007 - 29

Comment: GP 3-37. Are the air quality mitigation measures contingent upon the communities accepting LAWA's aviation easement requirements? CG

Response: The air quality mitigation measures presented in the SAIP are not tied to the existing or proposed aviation easement requirements as discussed in the Community Benefits Agreement for the LAX Master Plan Program.

SAIP-PC00007 - 30

Comment: Chapter IV.
4.4 Human Health Risk Assessment:

GP 3-38. What are the mitigation measures or master plan commitments that address impacts to children, adults, schools and workers? CG

Response: Please see Topical Response TR-SAIP-HRA-1 for a discussion of potential impacts from toxic air contaminants (TACs) and their mitigation. The proposed mitigation measures will address impacts to children, adults, and school children. The measures will also reduce worker exposure to TACs, although impacts to workers were found to be less than significant.

SAIP-PC00007 - 31

Comment: GP 3-39. Is AQ-2 saying that funding will only be provided to schools with air conditioning systems in place? CG

Response: GP 3-40. How do schools qualify for funding under AQ-2? CG
The commentor is correct in interpreting the measure to provide funding for air filtration at qualifying public schools with air conditioning systems in place. The qualifying schools will be determined based upon review of the conclusions and recommendations of the Air Quality Source Apportionment Study to be conducted in Master Plan Commitment AQ-1.

SAIP-PC00007 - 32

Comment: Chapter IV.
4.5 Noise:

GP 3-41. What are the estimated permanent noise impacts/effects as they apply to this project? The master plan EIR is the only place where the permanent impacts are addressed and they are addressed for the master plan as a whole. There is no way of telling what the permanent effects of just the SAIP are, which is a concern in light of other master plan projects potentially not being realized. Reference: page IV.-143, 2nd paragraph, 2nd sentence. CG

Response: Please see Topical Response TR-SAIP-N-1 regarding Off-Airport Noise Impacts. The SAIP will not change operations or capacity at LAX in the long-term. Thus, its permanent noise impacts are limited to any changes in noise contours attributable to the movement of runway 7R-25L approximately 55 feet to the south. Those impacts are analyzed in the LAX Master Plan EIR at Section 4.1.6.1.5 and are further analyzed in the SAIP Draft EIR at Section 4.5.1.1.

SAIP-PC00007 - 33

Comment: GP 3-42. What are the mitigation measures and master plan commitments for any impacts to the Centinela Hospital? Ref: IV-186 OFF

Response: Centinela Hospital, located in the City of Inglewood just west of the Hollywood Park Race Track on Hardy Street, is not exposed to aircraft noise levels of 65 CNEL or greater. As stated in Table M-12 in Appendix M of the Draft EIR, CNEL levels at Centinela Hospital (Grid NH044) are estimated to be 58 and 62 CNEL for 2003 Baseline and Project (2005) conditions, respectively. According to the State of California Incompatible Land Use Guidelines in Aircraft Impact Areas, Centinela Hospital is considered to be compatible to aircraft noise for both 2003 Baseline and Project (2005) conditions because the noise levels at the Hospital are below 65 CNEL. The difference between the values does indicate a notable increase of 4 CNEL during the SAIP construction period, but is not considered a significant impact.

As reported in Table S13 in Appendix S-C1 of the LAX Master Plan Final EIR, Centinela Hospital's calculated CNEL levels for the 1996 Baseline condition and the LAX Master Plan are 61 and 62 CNEL, respectively. Based on these two values, a 1 CNEL increase may be expected after the entire Master Plan program is completed. This indicates no significant impact to the hospital.

Therefore, no Master Plan Mitigation Measures regarding land use compatibility (i.e., MM-LU-1) is needed for Centinela Hospital.

Nevertheless, LAX Master Plan Mitigation Measure MM-N-5 does involve making nighttime over-ocean procedures mandatory through the Federal Aviation Regulation (FAR) Part 161 study process. This restriction measure is intended to reduce single-event nighttime aircraft noise impacts for areas east of the airport, which may benefit Centinela Hospital. LAWA has begun the Part 161 process, but is not expected to complete the study prior to SAIP completion.

Please also see Topical Response TR-SAIP-N-1 for a general discussion of off-airport noise impacts.

SAIP-PC00007 - 34

Comment: GP 3-43. What are the specific accelerated mitigation measures for the 19 schools in Inglewood referenced in MM-LU-3 and MM-LU-4? OFF

Response: As stated in Section 4.5.5.1 of the SAIP Draft EIR, LAX Master Plan Mitigation Measures MM-LU-3 and MM-LU-4 address long-term operational noise impacts associated with implementation of the LAX Master Plan. Both mitigation measures address newly impacted schools that exceed thresholds that indicate significant classroom disruption. Please see Response to Comment SAIP-PC00006-79 regarding the process of determining the interim classroom disruption threshold and the main focus for Mitigation Measure MM-LU-3. The study will evaluate the relationship between aircraft noise levels and the ability for children to learn. The findings of this study will be applicable to all schools within the vicinity of the airport. No specific schools have yet been identified to participate in this study.

As discussed in Section 4.5.5.1 of the SAIP Draft EIR, Mitigation Measure MM-LU-4 involves interior noise measurements at schools that could be newly exposed to noise levels that exceed the interim LAX interior noise thresholds as compared to the 1996 baseline conditions for classroom disruption. As required by this measure, LAWA would conduct interior measurements within six months of the re-commissioning of Runway 7R-25L. Those schools with measurements showing interim LAX interior noise thresholds exceedances would become eligible for soundproofing under the revised ANMP program per Mitigation Measure MM-LU-1. Schools to be monitored have not yet been identified. Schools are expected to be identified after the completion of the EIR analysis and review.

SAIP-PC00007 - 35

Comment: GP 3-44. Are the noise mitigation measures contingent upon the communities accepting LAWA's avigation easement requirements? CG

Response: Communities that receive funds from LAWA under the existing Aircraft Noise Mitigation Program (ANMP) to support their residential sound insulation programs are required to obtain avigation easements for each property insulated. However, certain residences in those communities party to the LAX Master Plan Community Benefits Agreement may execute noise easements in lieu of full, express avigation easements. Please see LAX Master Plan Community Benefits Agreement, III(E)(2)(b). As discussed in Section 4.5.8.1.1, the existing ANMP will be accelerated during the term of the SAIP as indicated in MM-LU-1. MM-LU-1's provision to expand and revise the ANMP is intended to mitigate the aircraft noise impacts associated with the full implementation of the Master Plan (discussed in Section 4.1 of the LAX Master Plan Final EIR). As stated in the LAX Master Plan Mitigation Monitoring and Reporting Program document (September 2004), LAWA shall revise or expand the ANMP to accelerate the rate of land use mitigation to eliminate noise impact areas in the most timely and efficient manner possible through increased funding from LAWA for land use mitigation, reevaluating avigation easement requirements with sound insulation mitigation, provision by LAWA of additional technical assistance to local jurisdictions to support more rapid and efficient implementation of their land use mitigation programs, and the reduction or elimination, to the extent feasible, of structural and building code compliance constraints to mitigation of sub-standard housing. Please also see Response to Comment SAIP-AL00005-36 for a further discussion on ANMP.

SAIP-PC00007 - 36

Comment: GP 3-45. How will the noise impacts during construction be measured compared to what was predicted in light of the permanent noise monitoring system being unavailable during the construction period (Ref. page IV-187 MM-LU-5)? CG

Response: The commentor is incorrect in stating that the permanent noise monitoring system will be unavailable during the construction period. The information stated in Section 4.5.5.1 of the SAIP Draft EIR regarding Mitigation Measure MM-LU-5 is related to LAWA's acquisition of an upgraded noise monitoring system. While the upgraded system is being acquired and installed, LAWA will continue to operate the existing noise monitoring system. The existing system is capable of measuring actual aircraft noise conditions during the SAIP construction period.

SAIP-PC00007 - 37

Comment: Chapter V.
5.3 Cultural Resources:

GP 3-46. What are the 10 historic properties? Is there an impact to the historic properties (ref. 5.3.2.1)? OA

Response: As presented on Figure F4.9.1-1 of the LAX Master Plan Final EIR, the 10 historic properties are as follows: WWII Munitions Storage Bunker; Theme Building; Intermediate Terminal Complex; Hangar One; International Airport Industrial District; Merle Norman Complex; Morningside Park Neighborhood; Academy Theatre; Centinela Adobe; and Randy's Donuts. As concluded in Section 5.3 (subsection 5.3.3.1.1) of the Draft EIR, construction activities associated with the SAIP would not affect any of these historic properties.

SAIP-PC00007 - 38

Comment: Chapter V.
5.6 Energy Supply and Natural Resources:

GP 3-47. Will the airlines experience any fueling disruptions due to construction? OA

Response: It is not anticipated that the airlines would experience any fueling disruptions due to construction of the SAIP. The project, its staging and execution, would be carried out in such a way as to minimize impacts to all airport tenants, including airlines, to the greatest practicable degree.

SAIP-PC00007 - 39

Comment: Chapter V.
5.8 Aesthetics:

GP 3-48. What will be done with the stock piled material if future master plan projects are delayed or not realized? CG

Response: Any existing stockpiled materials will be disposed of pursuant to local and state law.

SAIP-PC00007 - 40

Comment: GP 3-49. How would the new high intensity lighting impact El Segundo and the multi-family units on Imperial Hwy? CG

Response: As described in Section 2.4 (subsection 2.4.5.2) of the SAIP Draft EIR, no high intensity lighting is proposed for SAIP construction activities that would impact residential uses on Imperial Highway. As described on page V-25 in Section 5.8 of the SAIP Draft EIR, construction lighting would be

directed on airport property and away from residential areas. Because no nighttime construction or construction lighting would occur in areas close enough to disturb residential uses, no significant impacts from construction lighting are expected as a result of SAIP construction activities.

SAIP-PC00008 Jones, Wendy None Provided 9/12/2005

SAIP-PC00008 - 1

Comment: As residents of El Segundo for over 25 years, we strongly object to the south runway being moving further south. As the configuration currently is, we barely tolerate the noise levels of the cargo planes. El Segundo home owners are not as concerned about any impact the construction project will have, a temporary situation, but we are very much concerned with what the project is doing, a long-term (i.e. permanent) condition. The runway move would have a negative impact on the noise level.

Response: The aircraft noise impacts of post-construction airport operations with the SAIP were fully evaluated in Section 4.1 of the LAX Master Plan EIR, and the SAIP Draft EIR, as an environmental review document "tiered" from the LAX Master Plan EIS/EIR is not required to reevaluate those impacts. Nevertheless, SAIP Draft EIR Section 4.5.6.1.5 discloses that a qualitative aircraft noise screening analysis involving a comparison of expected 2008 runway use patterns with 2003 baseline conditions shows that the conclusions reached in the LAX Master Plan EIS/EIR continue to be valid and accurate. Therefore, the comment pertains to analysis already fully performed in the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-PC00008 - 2

Comment: Such meticulous effort went into this impact study of the "improvement" project. Has there been any effort to communicate directly with the people who live with sometimes intolerable noise levels day in and day out? Your "workshops" have been nothing but presentations of what LAX intends to do, like it or not. They have all had an air of arrogance that the public has definitely felt. They are not real workshops where citizens can input ideas. Giving people these forms for comments is not enough.

Response: LAWA has made a good faith effort to provide for and obtain meaningful public input on the SAIP Draft EIR. A public workshop on the SAIP, as well as a stakeholder forum, was held at Loyola Marymount University on August 10, 2005. An additional forum to review the SAIP Draft EIR was held for stakeholders on September 10, 2005. The SAIP Draft EIR was available for public comment for 45 days, between August 1 and September 15, 2005. Please also see the Introduction to these Responses to Comments regarding the CEQA process and public participation.

SAIP-PC00008 - 3

Comment: We realize our comments are going beyond this construction project report but we must express our objection to the project itself. Our impact study suggests having a curfew on flights set at 10:00 pm. No flights should be allowed to take off after this time.

Response: The comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004. Please refer to Section 7.1 in Appendix D of the LAX Master Plan Draft EIS/EIR regarding the potential noise abatement measures analysis. Also refer to Section 3.1.6 in Appendix S-C1 of the LAX Master Plan Final EIR regarding mitigation. As explained in Subtopical Response TR-N-4.1 in the LAX Master Plan Final EIR, actions such as the curfew mentioned by the commentor would require the preparation of an F.A.R. Part 161 Access Restriction Study of the benefit-cost ratios of such events, and the approval (not acceptance) of the measure by the FAA. The single event impacts of nighttime noise disclosed in the Supplement to the LAX Master Plan

Draft EIS/EIR suggest the initiation of such a study to restrict eastward departures during the night hours to mitigate nighttime single events that awaken residents to the east of the airport. This measure is identified as Mitigation Measure MM-N-5, Conduct Part 161 Study to Make Over-Ocean Procedures Mandatory. Implementation of such a restriction would provide noise reduction benefits not only to those who reside within the area of significance established by the airport sponsor, but also all those who reside beyond the threshold of significance and experience like events.

SAIP-PC00008 - 4

Comment: Palmdale makes a lot more sense than this inefficient and impractical packing of 10 lbs. of potatoes in a 5 lb. sack. Palmdale is really not that far away. Ontario wants the cargo. They both have ROOM.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00008 - 5

Comment: Thank you for the opportunity to comment. I will send this comment in the regular mail.

Response: The comment is noted. Identical comments from the commentor were received by LAWA and are included in this Final EIR as comment letter SAIP-PC00013.

SAIP-PC00009 Rubin, Martin Concerned Residents Against 9/13/2005
Airport Pollution

SAIP-PC00009 - 1

Comment: Concerned Residents Against Airport Pollution would like to have the following air quality item addressed:

1. Given that the Los Angeles area has the worst air quality in the nation and that emissions from jet aircraft have not been adequately studied; what justification is there for adding more "significant and unavoidable" air quality impacts on communities that are already over-impacted with the emissions from idling jets, that idle for approximately on half hour for each jet (as shown in Volume2, Appendix K, K.2 Operation Emissions with Tables K-8 and K-9)?

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. The primary purpose of the SAIP is to address the existing potential for runway incursions within the south airfield at LAX, as described in Chapter 2 of the SAIP Draft EIR and Chapter 2 of the Master Plan. The purpose of conducting an EIR is to provide information, analysis, and disclosure of potential environmental impacts associated with a proposed project. An EIR does not "justify" the addition of emissions or any other environmental impact. The justification in approving a project with significant and unavoidable impacts is the role of the decision-maker.

Concerning the commentor's statements regarding idling times for jet aircraft, Tables K-8 and K-9 in Appendix K of the SAIP Draft EIR present taxi/idle times for aircraft for a complete landing takeoff cycle. A landing takeoff cycle includes one landing and one takeoff and hence the figures presented in Appendix K represent the sum of the landing roll time, the time it takes an aircraft to taxi to the gate after it lands, any delays or time spent in queue between the runway and aircraft gate or parking area, and the time it takes an aircraft to taxi from the gate to the runway when it is departing.

As stated in Section 4.3.6.1.2 of the SAIP Draft EIR, aircraft taxi and queue times are expected to increase relative to the environmental baseline during the construction of the SAIP due to the

closure of Runway 7R-25L. Once construction of the SAIP has been completed and Runway 7R-25L is re-opened, average aircraft taxi and idle times are expected to be similar to or slightly lower than those experienced today. The opening of the center taxiway is not anticipated to significantly affect average aircraft taxi and idle times nor is it expected to affect overall airport capacity.

SAIP-PC00009 - 2

Comment: 2. Also: Why is it that nowhere, in this document, is the dumping of fuel from flying aircraft over areas addressed?

Response: The content of this comment is similar to comment SAIP-PC00006-15; please refer to Response to Comment SAIP-PC00006-15.

SAIP-PC00010 Peterson, Linda Los Angeles International Airport 9/14/2005
Advisory Committee

SAIP-PC00010 - 1

Comment: For more than 30 years, the Los Angeles International Airport Area Advisory Committee ("LAXAAC") has served as an advisory board to the Board of Airport Commissioners ("BOAC"). LAXAAC members are appointed by the Mayors or County Supervisor in communities immediately surrounding LAX to represent their communities: El Segundo, Lennox, Hawthorne, Inglewood, Culver City, Marina del Rey, and the Westchester and Playa del Rey areas of Los Angeles.

It is in this advisory role, that we provide these comments to LAWA. The members of LAXAAC are concerned about a number of issues raised by the SAIP DEIR, and we appreciate this opportunity to express our comments on general and specific items.

Our first question is why did LAWA accept bids on the SAIP prior to the completion of the EIR process? We question whether the Stakeholder program or any other respondents will be able to influence the SAIP if the contracts already have been drawn up or executed, or even if bids have been made based upon the initial assumptions in the DEIR.

Response: Please see Response to comment SAIP-PC00006-7. Ensuring participation by members of the public is key to implementing the LAX Master Plan. All participation by stakeholders has been taken into account in the development of the SAIP Draft EIR. Comments and responses are included in this Final EIR.

SAIP-PC00010 - 2

Comment: One of our basic concerns is that the SAIP is in conflict with the stated goal of LAWA to achieve a regional solution to air traffic problems.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00010 - 3

Comment: Indeed, the SAIP seems to be an enlargement of LAX primarily to serve the Airbus A380.

Response: The SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. As discussed in Chapter Two of this Final EIR, the south airfield has experienced a high number of runway incursions. Runway incursions represent a serious

threat to aviation safety. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and A380 aircraft.

SAIP-PC00010 - 4

Comment: If LAWA is truly seeking a regional approach, we would expect more of an effort to route these new large aircraft to Ontario or Palmdale.¹ Why have we not seen such an effort?

¹ It is both sad and ironic that instead of transferring flights to the former El Toro Marine Air Station in Orange County, LAWA will be transferring our wildlife there OV-250-251).

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00010 - 5

Comment: How would LAWA "encourage" (page II-I, 1.2) at other airports to assume a greater load? What incentives, fees, or other methods would be instigated? How would they be funded? How would they be monitored?

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00010 - 6

Comment: The DEIR also claims in Section 2.1 that "The airfield modification ... [would] improve the ability of LAX to handle new large aircraft (NLA), thereby helping the airport sustain and advance its role as the region's international gateway. As of July 2003, seven of the international air carriers at LAX using the B747 placed orders for the Airbus A380." It also states that "some of these carriers will initiate A380 service at LAX in the 2006 time frame." However, we expect that this would occur regardless of whether the runway is moved, and such an approach does nothing to achieve a regional airport solution.

Response: Comment noted. As stated in Response to Comment SAIP-PC00010-3, the SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

The text from Section 2.1 quoted by the commentor is incorrect. The A380 will go into service at LAX in 2007, not 2006. In response, page II-2 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

Please also see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00010 - 7

Comment: It appears that the real reason for the project is to enable LAX to become one of the few American airports that can readily accommodate the Airbus A380. Relying upon the HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004), the DEIR states that the center taxiway should reduce the likelihood of runway incursions in the south airfield. This is the only statement made anywhere regarding how the South Airfield Improvement Project would increase safety by reducing runway incursions ("RIs"). It is hardly a mandate for the runway project that the \$38 million to be spent would only reduce the likelihood of RIs.

Why go to all the expense of moving a runway without exploring other, far less costly and more effective safety measures?

The LAX Master Plan Final EIR is repeatedly referred to as setting the parameters for this project and the SAIP DEIR states that "this document does not reevaluate project alternatives." However, we believe that the door has been opened to challenge the statements about incursions through the Stakeholder process given the citations of a study of RIs as the reason for the project without identifying the categories of incursions. Section 2.1 states that: "In terms of safety, a primary consideration in the selection of an airfield design was the elimination or reduction of Runway Incursions."

Although incursions are cited as a security basis for creating the center taxiway, there is no indication of how many were Category A, B, C, or D Runway Incursions. How many Safety Incidents were included in the count of "incursions"? Were any of the incursions or incidents caused by anything other than human error?

In our committee's letter commenting on the LAX Master Plan, we challenged the five Category A RIs that were reported for 2002 in the Master Plan EIS/EIR. When the responses to the comments were published, LAX again stated that these incursions had happened. To the contrary, however, using LAX charts and FAA tower information from 2002 to 2005, we found that there are no Category A RIs that match the LAX claims:

Year	Runway Incursions				Safety Incidents
	A	B	C	D	
2002	0	2	2	2	8
2003	0	0	1	10	5
2004	0	1	2	2	4
2005	0	3	0	0	3 (through January 2005)
Totals	0	3	5	14	20

While we do not minimize in any way the importance and danger of Category A RIs, we feel that all RIs inappropriately were included and deemed as dangerous as Category A incursions during the LAX Master Plan presentations. Therefore, the Master Plan EIS/EIR (and especially the portion related to the runway movement) won approval based upon biased information.

In addition, all the discussion in the SAIP DEIR seems to be premised on the assumption that the RIs are a result of the aircraft moving too fast to stop. There seems to be an effort to ignore the possibility of human error, such as a pilot who simply may have been busy looking up the runway, listening to the radio, and running an after-landing checklist to notice that he is crossing the HOLD bar.

If RIs are truly considered to be the most important safety issue, then the following problems must be addressed:

- Correcting human errors: Given that human errors are the cause of most of the incursions and incidents, more extensive training programs to eliminate these errors must be included. There is no discussion about improving such training.
- Improving HOLD bars and guard rails: This approach has worked at other airfields. Where is the discussion about how the airline pilot who erroneously taxis beyond the HOLD bar in the current airfield configuration would be prevented from doing so with the new taxiway configuration without improving the HOLD bars?
- Improving all equipment: Where is the discussion about missed or garbled radio transmissions or confusion about runway lighting causing runway incursions?

In fact, the HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004) states that Runway Incursions have no single or simple cause. Factors involved in RIs are: controller workload, pilot/controller miscommunication, airfield layout, inadequate visual aids, and human factors.

Section 10 of the HNTB report shows the following FAA facts throughout the U.S. (about RIs):

- Weather is not a factor in 89% of the cases;
- Pilots enter the runway/taxiway without a clearance in 23 %;
- Pilots enter the wrong runway in 10%;
- Pilots are distracted in 17%;
- Pilots are disoriented or lost in 12%;
- Pilots are unfamiliar with ATC or the language in 22%;
- Pilots are unfamiliar with the airport in 19%;
- General Aviation-type aircraft make up 69% of the RIs;
- Low time pilots (< 100 hrs) make up 32%;
- High time pilots (> 3000 hrs) account for 10%; and
- The five aircraft most commonly involved are single engine general aviation airplanes.

In Section 2.3.3 of the DEIR, it is noted that the center taxiway alternative would provide the greatest benefits during all LAX operating conditions without causing excessive delay." As such, this suggests that the emphasis has shifted from safety (avoiding runway incursions) to minimizing delay. LAWA should not impose the significant impacts recognized in the DEIR on our communities merely to reduce delays.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. As stated in Response to Comment SAIP-PC00010-3, the SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP. Please see Chapter 3 of the LAX Master Plan Final EIR for further discussion on the issue of runway incursions at LAX.

Please refer to Response to Comment SAIP-AL00005-61 and Response to Comment SAIP-PC00015-2 for further detail regarding relocation of the hold bars. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Please also see Responses to Comments SAIP-AL00005-52 through SAIP-AL00005-54 and SAIP-AL00005-57 through SAIP-AL00005-65.

SAIP-PC00010 - 8

Comment: In Section 1.4, pg I-17, the SAIP does acknowledge that 'The areas of known controversy are related primarily to potential aircraft noise exposure in the City of El Segundo related to the 55-foot relocation of Runway 7R-25L to the south....' Because the aircraft would be starting up in mid-field with engine blast now pointed directly at the nearby community to the South of the airfield and landings (and some take-offs) would be occurring 55 feet closer to the communities to the South and East, new and specific noise studies must be included to measure this additional noise impact, including Single-Event and Time-Above level impacts.

Response: The comment pertains to the completion of the SAIP project. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP; Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR; and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. Please refer to Section 4.1 (subsection 4.1.6.1.5) and Section 4.2 (subsection 4.2.6.5) of the LAX Master Plan Final EIR regarding the aircraft noise impacts associated with the completion of the Master Plan program. Information regarding both cumulative and single-event impacts associated with the LAX Master Plan are disclosed. Please note that the FAA's Integrated Noise Model (INM) does model both take-off thrust and arrival reverse-thrust noise effects, which are included in the LAX Master Plan EIR aircraft noise analysis (FAA Office of Environment and Energy, INM Version 6.0 User Guide, September 1999.).

SAIP-PC00010 - 9

Comment: The HNTB report also is the source document for statements about the "end-around Option A alternative" as it affects noise from taxiing aircraft in El Segundo. The DEIR is self-contradicting with respect to this. In one instance, the report says that there is significant noise in El Segundo from taxiing aircraft, using the end-around taxiway. However, it also states that, when compared to all the existing airport noise, this significant noise is NOT significant. It then turns around again to say that the noise is significant and the center taxiway is quieter - ignoring the noise from airplanes that will be 55 feet closer to El Segundo when they takeoff.

Response: The commentor is referencing two documents with different purposes and methodology. The HNTB document was prepared for the purposes of responding to El Segundo's concerns related to the center taxiway and end-around taxiway alternatives. The report was not intended to provide a detailed noise impact analysis. The detailed noise analysis related to SAIP was conducted for the SAIP Draft EIR. The term "significant" in the HNTB report was not intended to be interchangeable with the term used in the SAIP Draft EIR or CEQA.

Considering cumulative aircraft noise exposure, aircraft operational sources of ground noise are start of take-off roll, arrival reverse thrust, ground run-ups and taxiway movement. The level of noise is dependent upon the level of thrust that is applied for each operation. As thrust is increased, the engines operate at higher RPMs, similar to when one presses down on the accelerator of a car. Another effect of increasing the thrust is the mixing of hot and cold air behind the engine, which creates a turbulent air flow. Both of the elements discussed are the primary sources of aircraft noise on the ground. Start of take-off roll requires the highest thrust compared to the four operational sources, because of the weight of the aircraft and the speed it needs to get to in order to take-off. Reverse-thrust from landing aircraft involves the second highest level of thrust, which is used to assist in slowing the aircraft down at a high rate of speed. Ground run-ups utilized the third highest levels of thrust, because it may involve high levels of thrust at intermittent levels (shorter time span compared to departures and arrivals). Taxiway movement requires the lowest level of thrust compared to the other three. For an annual average taxiway operation, the percentage of thrust is significantly lower compared to either a departing or arriving aircraft. The noise levels created by each operation is directly proportional to the thrust levels. For an average annual day at LAX, the number of taxiway movements, departures and arrivals are nearly equal. An aircraft taxiing to a runway becomes a departure and an arriving aircraft eventually becomes an aircraft taxiing to a gate. With operations all being equal, the louder events (departures and arrivals) will shadow the quieter ones (taxiing aircraft). Following the rules of acoustics (as discussed in Appendix M of the SAIP Draft EIR), if a departing aircraft creates a noise level of 100 dBA at the same time a taxiing aircraft is producing a 90 dBA level, the total noise level of both would be 100 dBA (the same as the departing aircraft). The taxiing aircraft noise is masked by the more dominant noise of the departing aircraft. Therefore, aircraft movement noise along taxiways is typically undetectable while arriving and departing aircraft are operating at the same time. This typically occurs for an average annual day. Therefore, taxiway noise is not considered to be a significant contributor to the average annual day aircraft CNEL exposure level compared to aircraft departures, arrivals and ground run-ups, which are accounted for in the Integrated Noise Model to determine significant impact (FAA Office of Environment and Energy, Integrated Noise Model Version 6.0 User Guide, September 1999).

Please refer to Section 4.5 of the SAIP Draft EIR regarding aircraft noise impacts associated with SAIP construction. Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-PC00010 - 10

Comment: Although there is a great deal of data included in the SAIP DEIR, very little of it actually is germane to the specific topic of the impact of the movement of the runway. The DEIR does address construction issues, but does not address the impacts this project would have after completion.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan Final EIR and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

The SAIP Draft EIR does address the post-construction impacts of the SAIP, by presenting further evidence that post-construction airport activity and runway use patterns would return to pre-construction conditions. As described in Section 2.3.4 of the SAIP Draft EIR, in response to concerns raised by the City of El Segundo regarding runway use after the SAIP is completed, particularly during the interim period between the completion of the SAIP and the construction of north airfield improvements, LAWA conducted the Interim Operational Plan Analysis, Existing and Future Runway Operations, was conducted. A copy of the report is included as Appendix C of the SAIP Draft EIR. The report concludes that runway use during the five-year interim period would be the same after completion of the SAIP as it would be without the improvements, as had been documented in the LAX Master Plan and the LAX Master Plan Final EIR. Post-construction runway use and impacts are further discussed in Section 4.5.6.1.5 of the SAIP Draft EIR, which also references Appendix M, Section M.1.7, in which a qualitative assessment of runway use demonstrates that post-construction runway use would be virtually the same as pre-construction runway use and that the analyses of the post-construction period presented in the LAX Master Plan Final EIR remains valid.

SAIP-PC00010 - 11

Comment: We also question how diligent the preparation of the SAIP DEIR was in terms of exploring and including alternatives and/or mitigation measures when the study already has indicated that there would be "significant and unavoidable impacts."

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR and Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

SAIP-PC00010 - 12

Comment: It is not entirely true that (as the EIR states, at page I-13) "runway use patterns would revert back to pre-SAIP construction conditions following the relocation of Runway 7R-25L, the potentially significant aircraft noise impacts caused by construction of the SAIP would be temporary." Inasmuch as the South runway will be moved, it is inaccurate to state that "patterns will revert," with respect to noise, given that the pattern of use and the pattern of the areas exposed to 65 CNEL will change.

Response: Based on the evaluations stated in Section 4.1.6.1.5 and Section 4.2.6.5 of the LAX Master Plan Final EIR, the commentor is correct in stating that the 65 CNEL exposure levels are expected to change with the implementation of the Master Plan program. As stated in Section 1.4 of the Draft EIR, a concern for El Segundo is related to the change in runway use after the SAIP project is completed. Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

As described in Section 2.3.4 of the SAIP Draft EIR, there will be no impacts from changes to operations due to the FAA favoring the use of the south airfield over the north airfield in the interim period between the completion of the SAIP and the initiation of the improvements to the north

airfield, consistent with the Master Plan. In response to this concern that such changes might occur, a study was prepared and made available in Appendix C of the SAIP Draft EIR. The results of the study confirmed that runway use during the interim period would be the same after completion of the SAIP as it would be without the improvements, as it had been documented in the LAX Master Plan and the LAX Master Plan Final EIR. Further details related to this concern are also available Section M.1.7 in Appendix M of the SAIP Draft EIR. In conclusion, completion of the SAIP is not expected to significantly increase the use of the south airfield compared to baseline conditions.

To the extent that the comment refers to whether noise contours would shift due to post-construction changes in aircraft approach and departure paths the comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIR, and does not pertain to, or raise, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master plan and related EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004. Nevertheless, it is noted that the aircraft noise impacts associated with post-construction operation of the south airfield with SAIP modifications are evaluated in Section 4.1.6.1.5 and Section 4.2.6.5 of the LAX Master Plan Final EIR for 2015. The comparison between the LAX Master Plan and 1996 Baseline (refer to Figure 4.2-28 of Section 4.2 of the LAX Master Plan Final EIR) does not indicate significant noise impacts from the changes to approach or departure paths due to post-construction operation of the SAIP.

SAIP-PC00010 - 13

Comment: Moreover, the mitigation measures with respect to noise are half-hearted at best. For example, the DEIR proposes to replace "noisy" equipment with "quieter" equipment only "when technically and economically feasible" (page I-13; IV-188). Who is to judge what is technically and economically feasible? Does that mean if the project has cost over-runs, that no such sound mitigation will occur?

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

The main goal for the Construction Noise Control Plan (MM-N-7) for the SAIP is to maintain the conclusions stated in the SAIP Draft EIR regarding construction equipment noise impacts stated in Section 4.5 of the SAIP Draft EIR. By limiting the noisiest construction activities to non-sensitive times of the day (per the Draft L.A. CEQA Thresholds Guide) and installing mufflers on heavy equipment, SAIP construction activities are not expected to cause a significant impact. As required in the contract specifications, the contractor will be required to prepare a Construction Noise Control Plan (CNCP). LAWA will provide, through the SAIP Construction Manager, acoustical engineers to review and monitor compliance of the CNCP. The contractor will be responsible to implement all measures that apply to all equipment and activities under his/her control, an obligation that will be formalized in the contract specifications documents, with financial penalties for non-compliance. Please refer to Response to Comment SAIP-AL00005-23 regarding the CNCP.

Any proposed alterations to equipment used and/or construction scheduling will be reviewed by LAWA. LAWA is ultimately responsible to ensure that such changes do not alter the conclusion of no significant impact of the SAIP Draft EIR regarding construction equipment noise impacts. Please see Response to Comment SAIP-PC00006-52 regarding LAWA's lead responsibility. If a situation arises that potentially changes said conclusion, LAWA will work with the contractor to identify the most effective means to further mitigate the impact as long as the means to do so is technically available and efficiently meets the objective. The construction noise mitigation measures stated in Section 4.5.5.2 of the Draft EIR are components of the SAIP construction project, and will be maintained throughout the term of the project.

Section 4.5.5.1 of the SAIP Draft EIR discusses the LAX Master Plan Commitment and Mitigation Measures associated with reducing aircraft noise impacts due to the implementation of the Master Plan. A brief discussion of each and its applicability to mitigating SAIP aircraft noise impacts is discussed. As stated in Section 4.5.8.1, the LAX Master Plan Commitment N-1 will be applied during Project (2005) conditions. Existing noise abatement procedures will be maintained to the extent possible during the Runway 7R-25L closure. Mitigation Measure MM-LU-1, which states that LAWA shall expand and expedite the existing ANMP, will be underway during SAIP construction,

but is not expected to be completed before or during the project timeframe. In fact, several residential properties that are impacted by aircraft noise during Project (2005) conditions also fall within the existing 1992 ANMP boundary, as illustrated in Exhibit 4.5-10. The remaining mitigation measures (MM-N-4, MM-N-5, MM-LU-2, MM-LU-3, MM-LU-4, and MM-LU-5) are also expected to be implemented during SAIP construction, but are not considered feasible to mitigate SAIP aircraft noise impacts due to the lengthy implementation process of each measure, funding availability and the short-term and temporary nature of the construction-related aircraft noise impacts.

SAIP-PC00010 - 14

Comment: Another half-hearted mitigation measure is found in the statement that periodic compliance testing by LAWA staff "may" be conducted to confirm that equipment on site is well maintained and meets noise emission guidelines (page IV-188). Why would such compliance testing not be required both for noise emission guidelines as well as pollutant emission guidelines?

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. Please also see Response to Comment SAIP-AL00005-23 for a general discussion of the Construction Noise Control Plan (CNCP).

As part of the SAIP construction contract, LAWA will require the Contractor and subcontractors to be responsible for ensuring that pre-determined low noise emission equipment is being utilized and maintained appropriately. As required in the Contract Specifications, the Contractor will be required to prepare a CNCP. LAWA will provide, through the SAIP Construction Manager, acoustical engineers to review and monitor compliance of the Construction Noise Control Plan (MM-N-7) that maintains the no significant impact conclusion stated in Section 4.5 of the SAIP Draft EIR. Similar compliance checks for air quality mitigation measure compliance will be conducted as required by Mitigation Measure MM-AQ-2. This measure requires that an implementation plan be developed to explain how each emission reduction element will be implemented and monitored. As with the noise control plan, each construction subcontractor will be responsible to implement all measures that apply to all equipment and activities under his/her control, an obligation that will be formalized in the contractual documents, with financial penalties for non-compliance. LAWA will assign environmental coordinator staff whose responsibility it will be to ensure compliance with the construction-related measures by use of direct inspection, records review, and investigation of complaints with reporting to LAWA management for follow-up action.

SAIP-PC00010 - 15

Comment: With respect to the mitigation measures identified at I-13 1.3.5.2 MM-N-8, who would determine what is "as far as possible"? What parameters would be invoked in making decisions? Similarly, with respect to MM-N- 9, who would determine what equipment emits the least "possible" noise? What constraints or parameters would be invoked to make decisions? Who would determine what is technically and economically feasible? What would be the bases for these decisions?

Response: The content of this comment is similar to comments SAIP-PC00006-51, SAIP-PC00006-52, SAIP-PC00010-13 and SAIP-PC00010-14; please refer to Responses to Comments SAIP-PC00006-51, SAIP-PC00006-52, SAIP-PC00010-13 and SAIP-PC00010-14.

SAIP-PC00010 - 16

Comment: There are other noise issues. The proposal to limit the "noisiest" on-site construction activities to avoid sensitive hours is commendable, but the suggestion that early Saturday morning is NOT a sensitive time (page IV-188) is incorrect. Most people working five days a week think that Saturday morning, at least between 6 and 8 a.m., is a noise-sensitive time. So at a minimum, the noise-avoidance should be extended to 8 a.m. on Saturday mornings.

Response: A typographical error is noted. In response, page IV-188 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR. The change addresses the difference between the definitions of noise-sensitive hours. Mitigation Measure MM-N-10 does consider 6 a.m. to 8 a.m. construction noise-sensitive hours on Saturday as stated in the

corrections made. The SAIP Draft EIR addresses construction noise impact methodology and threshold of significance in Section 4.5. For the SAIP Draft EIR, noise-sensitive hours for construction project located within the City of Los Angeles are based on guidelines provided in the Draft L.A. CEQA Thresholds Guide published May 14, 1998. These guidelines were based on the City of Los Angeles Municipal Code, Section 41.40, regarding construction noise.

SAIP-PC00010 - 17

Comment: With respect to the measures identified in I-14, MM-N-10, who would determine what is "necessary" during these sensitive times?

Response: The content of this comment is similar to comment SAIP-PC00006-53; please refer to Response to Comment SAIP-PC00006-53.

SAIP-PC00010 - 18

Comment: With respect to the same section, ST-16, who would determine that "every effort" is being made? What constraints would be used to make these determinations?

Response: The designated truck routes will be specified by contract and are comprised of freeways and non-residential streets that are not located near sensitive noise receptors. Designated truck routes are comprised of Pershing Drive between World Way West and Imperial Highway, Imperial Highway between Pershing Drive and I-105, I-105, and I-405.

LAWA acknowledges that the term "every effort" in Master Plan Commitment ST-16 is subject to interpretation. However, the intent of Master Plan Commitment ST-16, Designated Haul Routes, remains the same. LAWA recognizes the importance of establishing haul routes away from sensitive noise receptors. However, Master Plan Commitment ST-16 is not relied on to reduce a potentially significant impact to a less-than-significant level.

The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to the SAIP. Mitigation is proposed to address this potentially significant impact (see SAIP Draft EIR at Section 4.2.8), but it will not reduce the impact to a less-than-significant level.

Please also see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation and Monitoring Program (MMRP) commitments pertaining to traffic, and compliance and enforcement provisions to help ensure that SAIP contractors comply with traffic-related contract requirements. Please also see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00010 - 19

Comment: The DEIR states that the contractor "may" be required to subcontract with an acoustical engineer to develop noise control and monitoring plans for the construction (page IV-187), but why would this be optional?

Response: LAWA will require the contractor to develop noise control and monitoring plans for the SAIP construction project, but will not specifically require an acoustical engineer. LAWA will, however, provide, through the SAIP construction manager, acoustical engineers to monitor compliance of the Construction Noise Control Plan developed by the contractor. In response, page IV-187 of the SAIP Draft EIR has been revised. Please see Chapter IV, Corrections and Additions to the Draft EIR.

Please refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures and commitments for the SAIP.

SAIP-PC00010 - 20

Comment: In addition to our concerns about noise, we have a number of other serious concerns regarding the environmental impacts of the SAIP on our communities, which we do not believe have been adequately addressed or mitigated. As one example, in terms of environmental justice, the realignment of 25L greatly impacts a new section of Lennox and South Central L.A. Where are the specific analyses of the additional air and noise pollution impacts on those communities?

Response: As described in Section 4.4.3.1 of the LAX Master Plan Final EIR, although Government Code Section 65040.12 and Public Resources Code Sections 71110-7116 establish environmental justice as an aspect of state law and designate the California Environmental Protection Agency (CalEPA) as the public agency responsible for ensuring the fair treatment of minority and/or low-income populations in the design and implementation of the states programs, policies and activities, there is currently no requirement for addressing environmental justice under CEQA. Therefore, environmental justice was not addressed in the SAIP Draft EIR. However, in recognition of environmental justice principles and policies under state law, Section 4.4.3 of the LAX Master Plan Final EIR did address potential impacts on minority and/or low-income populations as part of that document's CEQA analysis. That analysis addressed the potential for the LAX Master Plan operations (including the South Airfield) to have disproportionate air quality and noise effects on minority and/or low-income populations. As further described below, these effects were addressed through mitigation measures provided in the LAX Master Plan Final EIR and a separate Community Benefits Agreement (CBA).

The SAIP Draft EIR addresses noise in Section 4.5 and air quality in Section 4.3. Supporting technical data and analyses are provided in Appendix M and Appendix K. Regarding noise impacts on Lennox and South Central Los Angeles, these impacts are shown on Exhibits 4.5-12, 4.5-13, and 4.5-15 of the SAIP Draft EIR. Based on the analysis presented in Section 4.5 of the SAIP Draft EIR, construction activities associated with the temporary closure of Runway 7R-25L would result in some noise sensitive uses in Lennox and South Central Los Angeles being newly exposed to high noise levels or significant noise increases compared to 2003 baseline conditions. However, South Central Los Angeles would not be newly exposed to single event noise levels that result in nighttime awakening. Although noise impacts on these communities would be significant, they would be short-term (approximately 8-12 months duration), primarily due to the temporary closure of Runway 7R-25L. Due to the temporary nature of these noise impacts, and the time and cost associated with soundproofing, no additional mitigation is feasible beyond what is being implemented through the current aircraft noise mitigation program (ANMP) and the community benefits agreement (CBA). As shown on Exhibit 4.5-10 of the SAIP Draft EIR, the majority of residential areas that would be newly and temporarily exposed to 65 CNEL or greater noise levels, or significant noise increases of 1.5 CNEL within the 65 CNEL or greater noise contours, fall within the boundaries of the current ANMP and therefore are eligible for and may have already received soundproofing. In addition, as described in the LAX Master Plan Fourth Addendum, LAWA has entered into a CBA which also provides measures to accelerate the current ANMP program, limit nighttime aircraft operations, and, under the terms of a Settlement Agreement with the Inglewood Unified School District and Lennox School District, provide soundproofing to schools exposed to high noise levels. These provisions would particularly benefit residents in the Lennox and South Central areas.

Regarding air pollution impacts, although these are not analyzed on a community-by-community basis (but rather are analyzed on a Los Angeles Basin-wide basis), pollutant concentrations are shown on Exhibit 4.3-5 of the SAIP Draft EIR. As described in Section 4.3 (subsection 4.3.5) of the SAIP Draft EIR, LAX Master Plan mitigation measures would be applicable to the SAIP and would benefit minority and low-income communities within Lennox and South Central Los Angeles. Provisions are also included within the CBA that are directed at addressing air quality concerns within these same communities.

SAIP-PC00010 - 21

Comment: In another example, the DEIR states that it would be speculation to attempt to analyze the environmental impacts of their projects in detail (IV-6), yet also states that it is "unlikely" that the projects referenced would contribute appreciably to the SAIP environmental impacts. Isn't that statement rank speculation?

Response: The subject of the comment appears to be whether the SAIP Draft EIR considered the contribution of other LAX Master Plan projects in its evaluation of the cumulative impacts of construction-related activities under the SAIP. The LAX Master Plan Final EIR fully evaluated the cumulative impacts of operation of the SAIP, in combination with operation of other Master Plan component projects, and also evaluated, at a general program level of detail, the cumulative impacts of construction of the SAIP in combination with construction of the other Master Plan component projects. The SAIP Draft EIR did not further evaluate the construction-related activities of those other Master Plan component projects in its evaluation of the cumulative impacts of construction-related activities under the SAIP, as detailed construction plans for those other Master Plan component projects have not been developed in sufficient detail to support such an analysis. Furthermore, in the expert opinion and judgment of LAWA planners, the other Master Plan component projects have not reached a level of planning that makes construction of those projects likely to coincide with construction of the SAIP. Nevertheless, as reported in Section 3.5.1 of the SAIP Draft EIR, LAWA will conduct further project-level analysis, as necessary, and prepare additional documentation for the other Master Plan component projects as further detailed construction planning is completed. Please see Topical Response TR-SAIP-GEN-2 regarding the analysis of cumulative impacts in the Draft EIR.

SAIP-PC00010 - 22

Comment: Given that the "SAIP would add incrementally to the already high cumulative impacts in the Los Angeles Basin near LAX (page IV-140), it seems that the proposed mitigation measures for the potential significant impacts to human health are inadequate, given these recognized increased cancer risks and other increased health hazards to the people living or working or going to school near the airport.

First, the Air Quality Source Apportionment Study, referenced on page I-1 1, should have been conducted prior to this report. Second, the additional FlyAway sites proposed (pages I-10 and IV-113) should have been implemented by now, and should certainly be implemented prior to the construction. If there were to be additional FlyAway sites in effect prior to the construction, it would help mitigate the cancer risks. Why delay the implementation of the FlyAway sites?

Response: Please see Topical Response TR-SAIP-HRA-1 regarding the adequacy of mitigation measures pertaining to human health impacts.

The LAX Air Quality and Source Apportionment Study (LAX AQSA Study) was addressed in the LAX Master Plan Final EIR. As explained in that EIR, and summarized below, the LAX AQSA Study has never been a part of the LAX Master Plan, therefore the LAX AQSA Study is unrelated to the SAIP and is not necessary for the completion of the SAIP EIR or the mitigation of human health impacts related to the SAIP.

The overarching objective of the LAX AQSA Study is to gather sufficient data to allow a reliable attribution of source contributions to ambient air quality concentrations in the areas surrounding LAX. The Study was not designed for health risk analysis, although health professionals may be included in the planning process for the long-term monitoring program. Therefore, although the LAX AQSA Study will examine sources of air pollutants in the LAX area, including sources of toxic air pollutants, the study will not reduce their emission or mitigate their effects. Moreover, even though the LAX AQSA Study will help define existing conditions with regard to sources of air toxics in the study area, existing conditions in the SAIP Draft EIR were adequately summarized for CEQA purposes based on the SCAQMD Multiple Air Toxics Exposure Study (MATES-II), dated November 2000.

As explained in Topical Response TR-AQ-2 in the LAX Master Plan Final EIR, the LAX AQSA Study was never intended to be part of the LAX Master Plan documentation. LAWA agreed to support the study to the maximum extent possible, but stated several times that the study would not be tied to the Master Plan. Two important reasons were timing and methods of analysis. However, most importantly, as stated above, although the Study will provide information regarding the sources of air pollutants in the vicinity of LAX, these findings were not necessary to describe baseline conditions for the LAX Master Plan EIR, determine the impacts of the LAX Master Plan, or develop mitigation for Master Plan-related impacts. For these same reasons, it was not necessary to complete this study prior to the SAIP Draft EIR.

LAWA is now a party to the Community Benefits Agreement that includes a commitment by LAWA to complete the LAX AQSA Study. This agreement includes a schedule for the commencement of the study.

With regard to the additional FlyAway sites, the LAX Master Plan Final EIR and related Mitigation Monitoring and Reporting Program clearly state that the new FlyAways will be completed by 2015. Final selection of the sites will be completed on a schedule that allows for property acquisition or leasing, terminal design, construction, and implementation of all sites by 2015. It should be noted that the FlyAways would not reduce the construction-related impacts of the SAIP.

SAIP-PC00010 - 23

Comment: Why did the events of September 11, 2001 interrupt the LAWA study of air quality in the area of LAX, independent of the Master Plan? Any interruption should only have been for the time that airplanes were not flying, not an interruption that continues to this date, as indicated at page IV-131, which states that "LAWA will reinitiate this study...."

Response: The suspension and planned reinitiation of the LAX Air Quality and Source Apportionment Study (LAX AQSA Study) was addressed in the LAX Master Plan Final EIR. As explained in that EIR, and summarized below, the loss of airport and airline revenue after September 11, 2001, severely restricted LAWA's ability to fund the study. Since completion of the LAX Master Plan Final EIR, LAWA has entered into the Community Benefits Agreement and has committed to reinitiate the study, based on a process and schedule included in that agreement. As explained in Topical Response TR-AQ-2 in the LAX Master Plan Final EIR, at least part of the funding for the LAX AQSA Study will need to come from other entities. To this end, the U.S. EPA has conducted a peer review of the study work plan and protocols and completed a peer review report. The positive conclusion drawn in the peer review report is a necessary (though not sufficient) condition to allow U.S. EPA to contribute resources to the study.

Please see Response to Comment SAIP-PC00010-22 regarding the LAX AQSA Study, and why completion of that study is not necessary to describe baseline conditions for the SAIP EIR, determine the impacts of the project, or develop mitigation for project-related impacts.

SAIP-PC00010 - 24

Comment: Why is there no permanent monitoring station for toxic air contaminants located at or near LAX, as stated on page IV-131? Even if this is a SCAQMD responsibility rather than that of LAWA, it would seem that LAWA should request that such a permanent station be implemented.

Response: The South Coast Air Quality Management District (SCAQMD) has conducted several studies of toxic air contaminants in and around LAX, including the "Multiple Air Toxics Exposure Study (MATES-II)" dated November 2000, the "Air Monitoring Study at Los Angeles International Airport" dated November 1998, the "Air Monitoring Study in the Area of Los Angeles International Airport" dated April 2000, and the "Air Monitoring Study at Felton and Loyde Schools" dated September 2001. In particular, the MATES-II study indicated that toxic air pollutant concentrations were generally lower in the vicinity of LAX (specifically Hawthorne) than at other sites in the South Coast Air Basin. Apparently, SCAQMD has chosen to allocate its resources to areas in the basin that have higher ambient toxic air pollutant concentrations. Also, LAWA has committed to conduct a state-of-the-science air quality and source apportionment (AQSA) study in the areas surrounding LAX as a part of the Community Benefits Agreement. This study will include monitoring of toxic air pollutants in the LAX vicinity. Please see Responses to Comments SAIP-PC00010-22 and SAIP-PC00010-23 for additional information on the LAX AQSA Study.

SAIP-PC00010 - 25

Comment: According to the SAIP, "If net airport peak hour trips exceed 8236" or "78.9 MAP" is exceeded, a re-study shall be incorporated. What form would this re-study take? A new EIR or a new-tiered EIR? Would a re study include the possibility that LAWA could change those maximum figures? How would the surrounding communities be protected if these maximums were exceeded?

Response: The SAIP would not change the capacity of the airport. Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

Any comments related to the overall capacity of the airport are related to the overall LAX Master Plan and are not on the SAIP. Although the LAX Master Plan does present the level of activity that would be reasonably accommodated at the airport with the facilities included in the LAX Master Plan, LAWA cannot legally impose a specific limit on the level of activity that can occur at the airport. Through the LAX Master Plan, LAWA has established the level of facilities that it will provide to accommodate aviation activity, but cannot specifically limit that activity per se. As explained in Response to Comment SAIP-PC00022-1, there is no federal law or regulation that would permit the FAA or a local airport sponsor to prohibit the use of a public use airport. It is the airlines' responsibility to provide suitable facilities to serve the airlines' needs. On the other hand, demand would regulate itself when airside capacity is constrained. The Final LAX Master Plan has predicted that the airlines would adjust air service patterns in several ways in response to physical constraints at LAX.

Under CEQA, LAWA need only prepare a new project-level EIR or other environmental review for projects previously examined in the LAX Master Plan Final EIR to the extent such projects may have significant impacts not fully evaluated in the LAX Master Plan Final EIR. As the impacts of airport operational levels under the LAX Master Plan were fully evaluated in the LAX Master Plan Final EIR, those impacts need not be reevaluated in the project-level SAIP EIR.

As required in accordance with the requirements of the Airport Land Use Commission and in accordance with State of California Title 21 requirements, LAWA will continue to work to improve the compatibility of the airport and its operations with neighboring communities. This is evidenced by the development of numerous mitigation measures directed at addressing impacts of airport operations on surrounding areas.

SAIP-PC00010 - 26

Comment: What would happen if the 3.1 MAT limit of cargo were exceeded? What measures are included to enforce this limit?

Response: Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP. The SAIP itself would not change the capacity of the airport. See also Response to Comment SAIP-PC00010-25 regarding the ability of LAWA to specifically limit operations or activity at the airport.

SAIP-PC00010 - 27

Comment: The SAIP DEIR states that no significant drainage impacts would occur (page IV-21, 4.1.4.2), but the definitions of "significant" and "substantial" in this context are unclear. Also, although the DEIR indicates that certain items to mitigate the drainage impacts are not within their jurisdiction, LAWA does not indicate what it would or could do to attempt to influence those entities with jurisdiction of the issue (page I-6).

Response: Section 4.1.4.2 of the SAIP Draft EIR describes the thresholds of significance used in assessing water quality impacts. Within the hydrology/drainage impacts discussion presented in Section 4.1.6.1 of the Draft EIR, the analysis concludes that the onsite (i.e., on-airport) hydrology/drainage impacts of the SAIP would be less than significant (see page IV-26 of the Draft EIR). Accordingly, mitigation is not required. In the analysis of cumulative impacts offsite (i.e., off-airport), the discussion in Section 4.1.7 concludes that hydrology/drainage impacts resulting from cumulative projects, in conjunction with the SAIP, may be significant. These conclusions regarding the significance of hydrology/drainage impacts are based on the thresholds of significance presented in Section 4.1.4.1 of the Draft EIR.

Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00010 - 28

Comment: Also, the DEIR states that drivers will be instructed to use freeways and nearby arterials, and to avoid residential communities (I-14). Aside from the fact that there are residential communities surrounding these arterials, and adjacent to the freeways, the planners should be more definite about this mitigation measure, and should do more than "instruct" the drivers; they should require the drivers to use only those freeways and arterials and to avoid residential areas. What will happen when a "haul route deviation" is reported?

Response: The designated truck routes will be specified and enforced by contract and are comprised of freeways and non-residential streets that are not located near sensitive noise receptors. Designated truck routes are comprised of Pershing Drive between World Way West and Imperial Highway, Imperial Highway between Pershing Drive and I-105, I-105, and I-405. Truck traffic will generally originate from outside of the immediate area and will, therefore, be required to use the designated freeways/roadways to access the construction site. Deviation from the specified haul routes would be a contract violation that would be addressed through the compliance and enforcement provisions outlined in the contract specifications. The contractor is subject to financial penalties for deviating for the approved haul routes.

Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, and compliance and enforcement provisions to help ensure that SAIP contractors comply with traffic-related contract requirements.

SAIP-PC00010 - 29

Comment: How would LAWA enforce delivery times as noted in I-7,1.3.2.2 C-1? In the same section under ST-12, how would LAWA "encourage" truck deliveries at night? And how noisy would night deliveries be? What incentives or fees would be instigated? How would they be funded and how would they be monitored?

Response: The specifications for SAIP construction contain provisions that would enforce the required delivery times, among other requirements. The specifications also provide for a financial penalty for non-compliance with the contract requirements.

Nighttime truck deliveries would be encouraged through an ongoing dialogue between LAWA, the contractor, and their subcontractors. Although dependent on many factors, nighttime deliveries would generally be considered for materials that are not time sensitive and can be scheduled during times of the day when construction is not at its peak. As with all truck deliveries, deliveries at night would be required to use the designated haul routes, which are located away from noise sensitive receptors. No financial incentives are planned for those deliveries that are made at night.

Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, compliance and enforcement provisions, and methods for monitoring contractor compliance with contract requirements.

SAIP-PC00010 - 30

Comment: In I-11, 1.3.4.2AQ 2, school air filters are listed for qualifying public schools, but there is no mention of private schools. Why not include qualifying private schools?

Response: The content of this comment is essentially the same as comment SAIP-PC00006-50; please refer to Response to Comment SAIP-PC00006-50.

SAIP-PC00010 - 31

Comment: What school districts will be in the study area (I-15) MM-LU-3? It is inconceivable that anyone anywhere believes that noise in a classroom does not hinder the educational process. What could possibly be a replacement threshold other than no learning disruptions?

Response: The content of this comment is similar to comment SAIP-PC00006-79; please refer to Response to Comment SAIP-PC00006-79.

SAIP-PC00010 - 32

Comment: There must be a comparison of how many aircraft currently are able to land on Runway 25L and immediately cross 25R via the high-speed taxiways versus how many aircraft would be stuck in the center taxiway, waiting a much longer time-frame to cross 25R. Also needed is a clear indication of how many aircraft could be accommodated on the center taxiway, and what happens to aircraft that could not be accommodated there - would they have to go to the end of 25L and taxi back around 25R and back to the terminals? How many aircraft actually would have to taxi around anyway to get to the Northside terminals?

Response: The number of aircraft that are able to land on Runway 25L, exit the runway, and taxi across Runway 25R without stopping and incurring delay is dependant on a multitude of factors that will remain after the construction of the SAIP. The airfield is currently operated so that aircraft crossing the inboard runway, Runway 7L-25R, are only able to do so when there is sufficient time prior to the runway needing to be used for departure operations. This will not change in the future. Though the SAIP would remove the high-speed exit taxiways directly linking the two south runways at LAX, aircraft would still be able to cross the inboard runway after arriving Runway 25L if the inboard runway is not being used for departure operations.

The number of aircraft that could be accommodated by the center taxiway depends on several variables including, but not limited to weather, aircraft type, aircraft size, and air traffic volume at the airport. LAX air traffic control ground controllers determine the safe and efficient use of the airfield facilities. The south airfield will operate much like it does today after construction of the SAIP in that arriving aircraft would hold before crossing the inboard runway. Those aircraft waiting to cross the inboard runway are able to cross when there is break in departure traffic on the inboard runway or when air traffic control holds departures so that the waiting aircraft are able to cross. There would be no advantage to forcing arriving aircraft to taxi to the end of Runway 25R after arrival as the aircraft would still be required to hold short of the inboard runway prior to crossing regardless of the location of the crossing.

LAX air traffic control determines the arrival runway assigned to each flight bound for LAX. According to LAX air traffic control, the relocation of 55.42 foot relocation of Runway 7R-25L will not result in any kind change in the way arriving flight are assigned to a given LAX runway. Today, some aircraft bound for Terminals 1, 2, and 3 are assigned to arrive on the south runway complex and some aircraft bound for Terminals 4, 5, 6, and 7 are assigned to arrive on the north runway complex. It is anticipated that an approximately equal number of aircraft would have to cross between the two runway complexes after completion of the SAIP.

SAIP-PC00010 - 33

Comment: There should be a specific study of additional pollutants from aircraft engine exhaust caused by idling engines on incoming aircraft waiting in line to cross Runway 25R. This exhaust must be specifically calculated because this exhaust from all engines is far more polluting than that from aircraft taxiing out from the terminal using just one engine, or (preferably) getting a tow from a tug. Recent studies have shown that specific pollutants from aircraft engines are extremely harmful and can be measured.

Response: The content of this comment is essentially the same as comment SAIP-PC00006-69; please refer to Response to Comment SAIP-PC00006-69. Please also refer to Response to Comment SAIP-PC00009-1.

SAIP-PC00010 - 34

Comment: There should be a specific study of additional pollutants from aircraft engines entering, stopping and turning into and out of the center taxiway. As the aircraft are maneuvered through right-angle turns, engines would be revving up to move the aircraft after full or nearly full stops.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The effect of the centerline taxiway on aircraft engine emissions was addressed in the interim (2013) air quality analysis conducted in the LAX Master Plan Final EIR. Please see Section 4.6 (subsection 4.6.6) of the LAX Master Plan Final EIR for a summary of air quality impacts. The SAIP Draft EIR focuses on construction period impacts and provides a robust analysis of airport operational impacts associated with the closure of Runway 7L-25R during construction of the SAIP.

The number of aircraft landing on Runway 7R-25L and exiting on high-speed taxiways would be the same with and without the SAIP. With a centerline taxiway, the number of aircraft making full and complete stops after exiting Runway 7R-25L would likely be reduced compared to the No Project condition since pilots could receive clearances to enter the centerline taxiway before landing. The number of aircraft coming to a full and complete stop before crossing Runway 7L-25R and accessing the terminal ramp would also be reduced since some pilots would receive clearance to cross the runway when they are taxiing on the centerline taxiway.

SAIP-PC00010 - 35

Comment: There also should be a specific study of all other pollutants (e.g., from extra braking and tire wear) caused by the slowing down for right-angle turns and starting and stopping in line to cross 25R.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The effect of the centerline taxiway on airport operational emissions was addressed in the interim (2013) air quality analysis conducted for the LAX Master Plan Final EIR. Please see Section 4.6 (subsection 4.6.6) of the LAX Master Plan Final EIR for a summary of air quality impacts. The SAIP Draft EIR focuses on construction period impacts and provides a robust analysis of airport operational impacts associated with the closure of Runway 7L-25R during construction of the SAIP.

Braking and tire wear emissions from aircraft would not change materially as a result of the SAIP. The number of aircraft landing on Runway 7R-25L and exiting on high-speed taxiways would be the same with and without the SAIP. With a centerline taxiway, the number of aircraft making full and complete stops after exiting Runway 7R-25L would likely be reduced compared to the No Project condition since pilots could receive clearances to enter the centerline taxiway before landing. The number of aircraft coming to a full and complete stop before crossing Runway 7L-25R and accessing the terminal ramp would also be reduced since some pilots would receive clearance to cross the runway when they are taxiing on the centerline taxiway.

SAIP-PC00010 - 36

Comment: There should be a specific study of how many extra gallons of fuel will be needed to start aircraft up after full or almost full-stops to maneuver through the center taxiway and cross Runway 25R. What will be the additional expense to the airlines?

Response: The SAIP would improve safety in the south airfield complex by removing the high speed exit taxiways that directly link Runway 7R-25L with Runway 7L-25R. Because the center taxiway component of the SAIP would provide aircraft with the ability to exit the arrival runway and maneuver east and west prior to crossing the inboard runway and without coming to a complete stop in some cases, it could potentially improve efficiency.

Aviation fuel is measured by weight, not volume, because fuel expands and contracts depending on ambient temperature and pressure which can fluctuate dramatically between sea level and typical cruising altitude of nearly 40,000 feet. Regardless, it would be impossible to determine the volume of fuel used in the future because there are many variables that determine fuel use including, but

not limited to, pilot behavior, weather and wind, aircraft weight, aircraft type, and engine type. Without the ability to quantify these variables, it would not be possible to calculate the cost to the airlines.

SAIP-PC00010 - 37

Comment: Where is the study of enhancing the west end of 25L and 25R so that aircraft would more smoothly exit the runways and proceed to their respective terminals in lieu of creating the center taxiway?

Response: It would not be possible to enhance the west end of Runway 7L-25R or Runway 7R-25L so that aircraft would be able to cross an active runway without traffic on that runway having to be temporarily held. The FAA rules and regulations that apply to runways, in terms of aircraft clearance, apply to areas beyond the runway ends. This not only includes the protection to the Runway Safety Areas, which extend 1,000 feet beyond the runway end, but also to the approach plane protecting the Approach Light Systems (ALS). Furthermore, the airspace at the ends of the runways are also restricted by the requirements of Federal Air Regulations (FAR) Part 77 "Objects Affecting Navigable Airspace" and by FAA Order 8260.42A "United States Standards for Terminal Procedures" (TERPS). It appears that the commentor may be referring to the end around taxiway alternative. For a complete analysis of the project alternatives, please see page II-3, Section 2.2, Airfield Design Alternatives Evaluated in the LAX Master Plan, of the SAIP Draft EIR. Please also see TR-SAIP-PD-1, TR-SAIP-ALT-1 and TR-SAIP-PD-2 for additional information.

SAIP-PC00010 - 38

Comment: What would the siting of the realigned 25L be? Is LAWA planning on moving it exactly 55 ft further south from the existing runway? Or will the east end swing slightly more south than the west end? If so, it could have an even greater impact on Lennox and South Central L.A.

Response: Runway 7R-25L would be moved south 55.42 feet as discussed on page II-1, Section II, Project Description, of the SAIP Draft EIR. However, the length and orientation of the runway would not change from its existing length and orientation.

SAIP-PC00010 - 39

Comment: The runway relocation also would affect the geographic location of the Runway Protection Zone ("RPZ") for that runway. The "relocated" RPZ, ideally an obstacle-free zone, will enclose a part of a condominium building in El Segundo as a result of the runway being moved. Ideally, an RPZ is to be obstacle-free and should at least be addressed in a proposal that adheres to the FAA's Advisory Circular for Airport Design standards (AC 150/5300-13).

Response: The content of this comment is similar to comment SAIP-PC00006-88; please refer to Response to Comment SAIP-PC00006-88.

SAIP-PC00010 - 40

Comment: Regarding the statements in the DEIR (page I.1, 1.1.1), we would like to know the improvements to the airport implemented since 1984 that were not classified as major, and would appreciate your listing them.

Response: The content of this comment is essentially the same as SAIP-PC00006-40; please refer to Response to Comment SAIP-PC00006-40.

SAIP-PC00010 - 41

Comment: It is not merely the view of the construction activities themselves that impacts the aesthetics of the area (page V-24). The south boundary of LAX already is in a disreputable state. LAX should take it upon itself to clean up the trash along Imperial Highway and better landscape that area. Although the likely impact of the construction along Imperial Highway is not discussed in the DEIR, it seems

clear that construction activities will have a significant impact on the aesthetics of Imperial Highway and certainly will not improve the current situation there.

Response: The SAIP Draft EIR addresses potential aesthetic impacts along Imperial Highway in Section 5.8. As described in subsection 5.8.4.1, staging and construction activities would be visible to some residents south of Imperial Highway in the City of El Segundo and to travelers along Imperial Highway. Although the quality of views towards the airport area are not considered scenic, and the primary focus of the viewing public from this area is of aviation activity at LAX, it is accepted that views in some areas may be temporarily degraded and therefore, short-term aesthetic impacts would be potentially significant. Construction fencing along the southern boundary of the airport would be provided under Mitigation Measure MM-DA-1, Construction Fencing. In addition, LAX Master Plan Commitment DA-1, Provide and Maintain Airport Buffer Areas, will ultimately improve views from Imperial Highway and other areas surrounding the airport.

Regarding the current conditions of the southern airport boundary, the primary focus of the SAIP Draft EIR, pursuant to CEQA, is the potential environmental effects of the SAIP and feasible mitigation measures to reduce or avoid potentially significant impacts resulting from the proposed project. While existing conditions generally serve as a baseline for the SAIP Draft EIR's analyses, CEQA is not intended to address, and the Lead Agency is not required to mitigate, preexisting conditions. Nonetheless, as described above, long-term Master Plan improvements are expected to improve visual quality at LAX, including views from the City of El Segundo and along Imperial Highway.

SAIP-PC00010 - 42

Comment: Finally, is there any mechanism by which organizations or individuals will be able to respond to your replies to our comments?

Response: The content of this comment is similar to comment SAIP-PC00007-6; please refer to Response to Comment SAIP-PC00007-6. Please also see the Introduction to these Responses to Comments for a further explanation of this process.

SAIP-PC00011 Abbott, A. Dwight None Provided 9/14/2005

SAIP-PC00011 - 1

Comment: The enclosed research paper finds that the Draft EIR for the South Airfield Improvement Project (SAIP) centers on a plan to relocate LAX runway 7R-25L, and that this relocation has not been subjected to reasoned analysis regarding its potential functionality and safety enhancement. The SAIP plans to embark on a massive project of nearly \$300 million and over 2 years duration. The project is not justified due to its limited potential to improve safety, its high cost, and a lack of consideration of alternative approaches.

If the SAIP itself is not justified, then the environmental insults that result from its construction and subsequent airfield operation are not justified.

The enclosed paper identifies several alternative approaches to enhancing LAX runway safety by reducing runway incursions. These alternatives offer potentially lower cost, more effective solutions, and, due to their smaller scale, offer potentially lower environmental impacts.

I request your consideration of these alternative approaches and response to these suggestions for a more environmentally acceptable, more effective, and lower cost solution to enhancing LAX runway safety.

Please note the enclosed endorsement from the South Bay Cities Council of Governments of the enclosed paper, its findings and request for your review.

The South Bay Cities Council of Governments (SBCCOG) Board of Directors endorses your analysis of the planned southernmost LAX runway move that is part of the LAX South Airfield Improvement Project. After hearing your presentation at the last board meeting, the Board believes that your research provides a thorough examination of the project and rightly questions the justification and effectiveness of the proposed safety enhancements. Your findings are clearly laid

out in the paper that you wrote which indicates that reasonable alternative projects have not been examined that may provide more effective, lower cost solutions.

As you knew, SBCCOG has actively followed the LAX Master planning process working with our members, the sixteen cities immediately south of the airport. As both neighbors and users of LAX we support efforts to enhance LAX security and safety. We join you in your concern that the proposed modification is not justified based on its limited potential to improve safety, its high cost, and the lack of consideration of alternative approaches.

The SBCCOG endorses your paper and commends it to the attention and review of the EIR process. We do not have the technical background that you have but we do share your concern that this project should be re-visited in light of its questionable cost and effectiveness.

Please include a copy of this letter as part of your submission of comments on the Environmental Impact Report.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP and Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Please see Responses to Comments SAIP-PC00011-2 through SAIP-PC00011-14 regarding specific aspects of the correspondence and attached report.

SAIP-PC00011 - 2

Comment: Don't Move LAX Runway 25L-7R

Executive Summary

The LAX South Airfield Improvement Project (SAIP) plans to destroy the 200 foot wide southernmost runway and to rebuild and relocate it a horizontal distance of 55 feet - that is a move of only approximately one-quarter of its width. This massive project will cost nearly \$300 million and will take 2 years. This restructuring of the runway is not due to its structural or functional inadequacy. In fact, it is the widest of 4 runways at LAX.

The SAIP and LAX Master Plan state that this small relocation is necessary in order to permit building a new taxiway centered between and parallel with the two south airfield runways. The claimed purpose of the new center taxiway is to provide a taxiway reconfiguration that will increase safety by reducing the potential for runway incursions* that have plagued LAX. Most runway incursions at LAX occur when aircraft arriving on the southernmost runway have to taxi across the nearby parallel runway to get to the terminal gates. The planned project will not change the necessity for these runway crossings that are the underlying problem contributing to incursions.

The SAIP cites a NASA Ames Research Center simulation study and its findings as the justification for the effectiveness of the planned center parallel taxiway reconfiguration. However, a close examination of that study finds no such justification. Comments from the LAX air traffic controllers that participated in the simulation study found that the center taxiway configuration introduced traffic manageability, communications and workload problems.

The LAX Master Plan and SAIP look at very few south airport runway and taxiway reconfiguration alternatives. However, there exist runway and taxiway reconfiguration alternatives as well as technology-based alternatives that have not been addressed that may offer lower cost, more rapid and more effective ways to address the runway incursion problem.

The FAA reports that the large majority of LAX runway incursions (85%) are caused by pilot deviations that are the result of a loss of or lack of situational awareness. These are communications and mental errors that are most directly addressed by improved visual and audible information in the cockpit. The FAA points out the importance of improved taxiway and instrument panel displays to provide information addressing runway incursions caused by pilot deviations. The planned project does not address this primary cause of LAX incursions.

In summary, it is not reasonable to conclude based on the information presented in the LAX modernization plans, in the SAIP report, and in the studied FAA and air safety expert reports that

the planned massive project to relocate the southernmost LAX runway one-quarter of its width and add a new center taxiway is a prudent or effective safety enhancement

* Incursion: Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off intending to take off, landing, or intending to land.

1.0 Introduction

The LAX Master Plan¹ states that runway 25L-7R is to be moved approximately 50 feet south and a center taxiway added in order to reduce the potential for runway incursions. This move, according to the Draft EIR for the South Airfield Improvement Project², is expected to cost \$252,000,000, and perhaps as much as \$288,000,000³. The runway is now 200 feet wide, so the proposed move will move it one-quarter of its width.

The potential runway incursions that this massive project is supposed to reduce are said to occur when landing traffic on runway 25L has to taxi to cross over the parallel runway 25R to reach the terminal. This planned project will not change that cross-over requirement.

Clearly, a massive project that will cost over a quarter billion dollars and not remove the underlying problem that initiated it should bear close examination.

2.0 Center Taxiway Simulation Study

Although the planned runway rebuild and need to reduce LAX runway incursions have been extensively examined, unfortunately little information is available on how effective the changed runway and taxiways will be. The Draft EIR for the South Airfield Improvement Project (SAIP) (Sec II.2.1 & Appendix B) includes more information on alternative runway configurations than do its predecessor documents, including the LAX Master Plan. However, even the SAIP does not address the potential effectiveness of the chosen plan to move the runway 55 feet and build a new center taxiway.

The SAIP states, "In a joint study with the FAA and NASA Ames Research Center, air traffic controllers found that the center parallel taxiway offered an effective solution to the primary cause of the most severe types of runway incursions experienced at LAX." That joint study is titled "Los Angeles International Airport Runway Incursion Studies - Phase III, Center Taxiway Simulation (published on July 31, 2003)⁴. A close examination of that report finds no such finding of effectiveness as will be discussed later.

The simulation study was done in the NASA FutureFlight Central (FFC) simulator which is a large room with surrounding walls covered with computer-driven display screens simulating the LAX traffic control tower windows. The room duplicated the LAX tower layout, controller positions, and view out the window as closely as possible. Information displays in the FFC simulator were configured as closely as possible to their counterpart displays in the LAX tower.

A group of four LAX controllers participated in the simulation and each worked twelve 45-minute scenarios over a three-day period. The approach for this study was to present a realistic environment for the controllers, such that they could operate in the FFC simulator tower as they would in the LAX tower. Both the north and south sides of LAX were simulated, with a complement of 22 airlines and an aircraft mix representative of LAX in the summer of 2000.

Thirty-one people participated in each simulation run. They included 24 pseudo-pilots to "pilot" the controller-directed and computer-simulated airplane movements at computer workstations in a room downstairs from the simulated tower.

Controllers were rotated by tower position to ensure that there was no response bias produced by over-familiarity with the scenario, fatigue, boredom, or particular expertise in a position by any individual. No controller worked the same position for the same scenario more than once. Controllers were instructed to direct air and ground traffic as they would at LAX, given the operational rules for the simulated center taxiway.

2.1 Study Results

The objective of this simulation was to subjectively evaluate a center taxiway concept at LAX. The study results represent the averages for the 9 data-collection runs conducted during the simulation. Controllers were asked to rate each of 8 questions relative to LAX traffic as it existed pre-9/11. Results for the South-side ground controller position controlling the simulated center taxiway are as follows:

Question 1: The amount of coordination required with the controllers on my side of the airport was: About the same. (no change)

Question 2: The amount of coordination required with the controllers on either side of the airport was: Slightly less. (good)

Question 3: The amount of communication with the pilots was: Somewhat greater. (bad)

Question 4: The overall efficiency of this operation was: Slightly decreased. (bad)

Question 5: In my estimation, relative to pre-9/11 LAX operations, the potential for a runway incursion on this run was: Slightly greater. (bad)

Question 6: The level of traffic complexity in my control area was: Somewhat greater. (bad)

Question 7: I would rate my ability to manage the traffic flow under this scenario: Slightly more difficult. (bad)

Question 8: The most critical problems in this scenario were (name three): Communications, workload, manageability of traffic flow.

In summary, the answers are striking in that they DO NOT FAVOR the center taxiway concept. Only one answer (#2) is positive, one answer is no difference (#1), and all other answers are negative! Especially troubling is answer #5 that indicates that, on average, the ground controllers' judgment found that the potential for runway incursions was slightly GREATER!

The answers to question #8 indicating difficulty with managing traffic and workload also are troubling. How can it reasonably be concluded that this simulation study results provide the justification for a massive runway restructuring and new center taxiway?

Additional reported results from the study do not favor a center taxiway. Average arrival aircraft taxi time on south runways increased from 7.5 to 8.7 minutes. Average departure aircraft taxi time increased from 12.9 to 13.5 minutes.

South side ground controller comments following the simulation experience included: "I think the center taxiway increases the workload almost too much, because right now it's not so hard, but if we are going to have to do all the crossovers or input in the 'ARTS' it's a lot of work for that one controller." "Having traffic on the taxiways for a longer period of time adds to the complexity. Longer they are on the taxiway the more calls you are going to have to make."

Based on the controllers' answers and comments it is apparent that the center taxiway introduces traffic on that taxiway that creates traffic manageability, communications, and workload problems.

Finally, the NASA Ames LAX Center Taxiway Simulation Report bears a caveat in front that states, "Due to inherent limitations of virtual reality, decisions should not be based solely on results obtained in FutureFlight Central." But LAWA's decision to proceed with the center taxiway is, in fact, based on that report. No other effectiveness studies are cited.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here.

Nonetheless, please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions and an assessment of the referenced NASA study. The referenced Topical Response addresses each of the items raised by the commentor. The commentor is correct in stating that the SAIP will not change the need for runway crossings to occur at the airport. However, the commentor states that "runway crossings" are the underlying problem contributing to runway incursions. Runway crossings are an everyday event at large air carrier airports around the country. They are not an occurrence that is in any way unique to LAX. The commentor also correctly indicates that human error is a primary cause of runway incursions. The SAIP is not intended to eliminate runway crossings or the need for them or eliminate human error. The SAIP, recognizing that runway crossings and human error are both part of the operating environment of LAX, as at any large air carrier airport, is needed to reduce the potential for runway crossings or human error to result in a runway incursion.

SAIP-PC00011 - 3

Comment: 3.0 Accommodating the New Airbus A380

The FAA has established requirements for airports to accommodate the Class VI New Large Aircraft (NLA) such as the Airbus A380. The current LAX runway 25L-7R and taxiways can handle the A380 with perhaps some widening and filleting of taxiway corners and "judgmental oversteering" during taxi by the A380 pilot. The FAA prefers a 200 foot wide runway, as is 25L-7R, for the A380. All other LAX runways are 150 feet wide. Airbus and LAX are working to try to clear A380 operations on the 150 foot wide runways⁵.

The proposed 55 foot move of runway 25L-7R and the new center taxiway have almost nothing to do with A380 operations, per se. The current centerlines of parallel runways 25L and 25R are 750 feet apart. The FAA specifies a 400 foot separation between runways and taxiways for Group V aircraft (B747) operations, thus the desire for moving runway 25L an additional 55 feet to add the center taxiway. The FAA specifies for Group VI aircraft (A380) a separation distance between runways and taxiways of 600 feet, so the proposed center taxiway will not meet that requirement. Traffic use of the center taxiway will be banned whenever an A380 is using runway 25L or 25R, and, similarly, when an A380 is on the center taxiway, traffic on both 25L and 25R will be banned based on the FAA specified minimum separation requirements. This restriction resulting from A380 operations does not occur with the current 750 foot separation of runways 25L and 25R. It should be noted that during the near year-long shutdown of runway 25L for relocation that no runway at LAX will meet current FAA A380 operational specifications. LAX is hoping (assuming) that the FAA will permit non-conforming use of runway 25R for the A380.

Response: Comment noted. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00011 - 4

Comment: 4.0 Runway and Taxiway Configuration Alternatives

Based on the massive project size and cost of moving runway 25L-7R a mere 55 feet together with the minimal, at best, justification of a new center taxiway for reducing runway incursions, it is most appropriate that all possible alternative runway/taxiway configurations be explored. Appendix B of the SAIP report explores and rejects the potential of "end-around" taxiway configurations, often called perimeter taxiways, that would construct a new taxiway to the south and west of runway 25L, to guide aircraft around the end of runway 25R thus avoiding the runway 25R crossover that invites incursions.

Although the SAIP puts great reliance on the findings of the NASA FFC center taxiway simulation study, it chooses to ignore and not mention a similar NASA FFC perimeter taxiway simulation study⁶. That study was done for Dallas/Fort Worth International Airport (DFW) and involved both pilots and controllers in the perimeter taxiway simulation. The report found that "Pilot participants

thought the perimeter taxiways (PTs) improved efficiency and increased safety by reducing the potential for runway incursions. They also speculated that PTs would improve airline performance rates and reduce both pilot and controller workload due to less frequency congestion and a reduction in hold-short instructions." Further, "controllers felt that the volume of communications was significantly reduced, and that they used less verbiage because concerns about crossings and reliance on pilot readbacks were alleviated."

Perimeter or end-around taxiway configurations for LAX were rejected based on the projected increased aircraft noise to the adjoining city of El Segundo and the additional land acquisition required for the taxiways. However, several new taxiway alternatives exist that have not been addressed in the series of LAX modernization reports that may mitigate both noise and runway incursion concerns. They are discussed below.

Response: The comment does not discuss the potential environmental impacts of the SAIP or the adequacy of the SAIP Draft EIR. Rather, it disagrees with LAWA's policy decisions regarding the proposed project. This is not a comment on the Draft EIR that requires a further response. However, the commentor makes reference to Appendix B as the only source for discussion and analysis of the end-around taxiways. It should be noted that the South Airfield and New Large Aircraft Study, also referenced in the SAIP Draft EIR also included extensive analysis on the end-around taxiway concept and its comparison with the center taxiway option. This study found that the requirements for a free flow end-around would have been infeasible at LAX due to the site constraints. Furthermore, as compared to the center taxiway, all the end-around alternatives studied proved to be less efficient. This efficiency was measured in terms of taxi time and taxi distance, which in turn would translate into additional air emissions. In terms of noise exposure, the study found that the end-around taxiways would introduce additional aircraft taxi noise to areas adjacent to the City of El Segundo.

The site conditions of LAX cannot be compared to the ones at Dallas-Fort Worth Airport (DFW), as the commentor suggests. DFW does not have the same operating patterns as LAX, not the same constraints. The DFW study referenced by the commentor is specific to DFW issues and needs to be evaluated within that context. DFW's analysis assumes that ample land is available for the development of these taxiways, which would supplement DFW's full parallel center taxiways. As a comparison, LAX has only 3,600 acres of land, while DFW has over 18,000 acres. This is over five times the size of LAX.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00011 - 5

Comment: 4.1 Widen Runway 25L-7R

Three-quarters of the 200 foot width of runway 25L-7R is in the right place based on the proposed 55 foot move. Rather than removing and rebuilding the 200 foot wide runway only 55 feet south of its present location, an alternative would simply add a new 55 foot wide "shoulder" on the south edge resulting in a 255 foot wide runway. If the centerline was then moved 55 feet south and the northern 55 feet of width painted striped for non-use, in essence a new 200 foot runway would be created 55 feet south of the present one, but with a safer concrete shoulder on the north side.

To comply with the FAA-specified 1.5 degree transverse cross slope on the runway (for drainage) the southern edge of the suggested new 55 foot runway widening strip would have to be 1.44 feet lower than the current runway edge. This would appear to be manageable.

The crown of this alternative runway configuration would remain at its current location which would be 55 feet north of the new centerline. This should not affect aircraft operations. Aircraft typically land offset from the centerline in a "not-exactly-level" attitude routinely. We drive cars on highways having a built-in cross slope for drainage and don't notice a "not-level" attitude. This alternative approach to moving runway 25L-7R 55 feet should greatly reduce the cost and construction time while still providing the space to add the proposed new center taxiway.

Response: The relocation of Runway 25L centerline requires the reconstruction of the entire runway for the following reasons:

- The relocation of Runway 25L centerline will require the relocation of navigational and landing aids to the approximately 55 feet to the south. A large portion of these visual aids are located in the runway pavement (centerline lights, touchdown zone lights and runway edge lights) along with the supporting conduit and cable runs. The relocation of these lights, should the existing pavement remain in place, will render it unusable.

- While the commentor addresses the need to keep the required transverse slope on the runway to the south and simply add pavement and therefore continuing the pavement slope, it should be noted that the FAA recommends that airfield pavements be graded to promote drainage run-off. Adding 55 feet of pavement to the south, as suggested by the commentor, and keeping the pavement crown in the current position could create an unsafe operating airfield surface. Run-off would be collected and sheet-flow an additional 55 feet therefore accumulating in the process and introducing the potential for aircraft hydroplaning. Airfield pavements are typically grooved to promote drainage; however an additional 55 feet would create the drainage surface to be over 150 feet. This is excessive and contrary to the recommended FAA airfield design criteria.

- The pavement of Runway 25L is near the end of its useful life. The pavement of Runway 25L has reached a point where the only rehabilitation option is total reconstruction. Thus, Runway 25L would need to be reconstructed in the near future as part of LAX's on-going maintenance and safety programs, regardless of whether the SAIP is implemented.

SAIP-PC00011 - 6

Comment: 4.2 Center-Around Taxiway

The "end-around" taxiway configuration referred to above offered the advantage of removing the crossovers of runway 25R by aircraft arriving on 25L that can lead to incursions. This "no-crossover" advantage can be retained and the end-around taxiway's disadvantages of increased noise to El Segundo and increased land acquisition requirements can be removed by installing a new center taxiway that leads aircraft around the end of runway 25R rather than to taxiways that cross 25R as currently planned. This "center-around" taxiway would completely remove the runway 25R crossover incursion risks still remaining with the planned center taxiway configuration.

The NASA FFC simulation facility also conducted a simulation study for LAX to examine the potential of a few "end-around" taxiway concepts⁷. These end-around alternatives proposed a modification to the airport's Bravo taxiway (the "B-16 extension") which would allow controllers to route runway 25L arrivals to the gate complexes via taxiway Alpha and the B-16 extension without crossing the parallel 25R runway. Simulation results reported that "Controller subjective data indicated that the potential for runway incursions under this alternative (3a) was significantly reduced when compared to the baseline LAX operation", and that "The B-16 alternatives were regarded as resulting in operations "more easily managed" than those currently in use at LAX." The critical problems of workload and manageability of traffic flow reported by controllers in response to Question #8 for the center taxiway simulation were not reported in the end-around studies.

These simulation study results suggest that there is merit in a center-around taxiway concept that would retain the "no runway crossover" advantages without incurring the noise and land acquisition disadvantages found for the end-around alternatives examined in the SAIP Appendix B.

A potential disadvantage of the center-around concept is the increased taxi time for arriving aircraft that it may create. This time increase may not be large. The Reference 7 simulation studies of the "B-16" end-around alternatives reported a 6-13% increase in aircraft departure rates in addition to the "easier than LAX today" traffic manageability. Runway 25L aircraft arrivals would use less braking and thrust reversal (less noise) to arrive with little delay at far end of 25L for the center-around taxi transition to the gate. Similarly, the DFW perimeter taxiway study⁷ found that although arrival taxi time increased that departure taxi time as well as aircraft "holds" decreased. A slightly increased arrival taxi time should trade favorably with the large gain in safety resulting from the essentially total removal of runway 25R incursion risk.

Response: The commentor suggests that the SAIP will require land acquisition. It should be noted that the entire development of the SAIP is within existing airport property and that the SAIP will not require any land acquisition.

The commentor makes reference to a proposal addressed in Phase II of the NASA Ames study. This proposal included the construction of an end-around taxiway that would connect Taxiway A with an extension to Taxiway B-16. This proposal however was not fully analyzed in terms of FAA airfield planning standards and did not accurately address the operations of the airfield. A fundamentally wrong assumption on this proposal is the fact that aircraft taxiing along this new taxiway would not require to "cross" an active runway. The proximity of the end-around taxiway to the end of the runway would require that these aircraft hold and wait for clearance from Airport Traffic Control (ATC) similarly to crossing an active runway. This misused assumption was confirmed by FAA Western Pacific Region personnel during the preparation of the South Airfield and New Large Aircraft Study at LAX.

Furthermore, this proposed option, as with all other end-around options assume that all arriving aircraft traffic on Runway 25L is required to exit to the south onto Taxiway A and then proceed westerly. This is likely to generate severe congestion on an area of Taxiway A that is primarily used on easterly flow. This taxiway typically accommodates cargo aircraft that have landed on the north airfield and are in en route to the south cargo complex.

None of these operational restrictions were simulated in the NASA Ames study. The outcome of the study would, and subjective opinion of the controllers involved in the simulation, would be different with more realistic operating assumptions.

Please see TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00011 - 7

Comment: 4.3 Exempted Center Taxiway

The current spacing between parallel runways 25L-7R and 25R-7L is 750 feet. This is only 6.3% less than the FAA-specified 800 feet separation for inserting a new center taxiway capable of handling Group V (B747) aircraft. The lateral relocation of runway 25L-7R a distance (55 feet) about one-quarter of its width at a cost of more than a quarter billion dollars is a high cost to pay for a 6.3% runway separation deficiency.

The increased risk associated with a lesser runway separation than 800 feet is not a step-function increase. Rather, as runway separation less than 800 feet occurs, a gradual (not sudden) increase in risk occurs. Similarly, as runway separation of greater than 800 feet occurs, a gradual decrease in risk occurs. The specified 800 feet separation is not a "magic" number, but rather a judgmental "rounded" one.

The enormous cost of moving runway 25L-7R might be avoided and a new center taxiway approved by seeking operational restrictions on the center taxiway use that would lead to the FAA approval of "non-conforming" use. This is the anticipated approach to using the 150 foot wide LAX runways (other than 25L-7R) for A380 operations when the FAA preferred runway width is 200 feet.

There are many potential operational limitations that might be considered in order to gain non-conformal use of a new center taxiway with the current 750 foot runway separation. Runway 25L is about 2 miles long and can be thought of as having a "fast" first mile (for arriving aircraft) and a "slow" second mile for taxiing aircraft. Risk could be reduced by restricting turn-offs to the center taxiway to slower "last half" traffic. This would be accomplished by not turning arriving aircraft off of runway 25L until taxiway "Mike" or later. Such limitations would be consistent with the key points of the FAA's Runway Safety Blueprint 2002 -2004 8, that states, "Collision-avoidance safeguards need to be developed for the high-energy segment of runways, where aircraft are accelerating for take-off or decelerating after landing"

Alternative operational restrictions might be suggested by the FAA experts that work with other large airports in the nation and are aware of risk reducing operational restrictions that could permit a non-conforming center taxiway.

Response: This comment does not raise an environmental impact or CEQA issue, but rather questions the wisdom of the policy decision that the City made at the time it adopted the LAX Master Plan. Accordingly, no further response is required. Nonetheless, as noted in the comment, the required separation between a runway and parallel taxiway for Airplane Design Group V is 400 feet. These are minimum recommended dimensional criteria provided by the FAA and, while they have been termed recommended, the FAA considers them "mandatory." These dimensions are provided as the minimum requirements for the "safe" and efficient operation of aircraft - a mandate of the FAA.

Compromising the recommended dimensional criteria, as suggested in the comment, would cause a less safe operating environment. LAWA and the FAA are committed to enhancing the safety of operations at LAX, which is consistent with the purpose and need of the SAIP. The separation and overall airfield layout of the SAIP is consistent with the Airport Layout Plan for which the FAA has given unconditional approval in the Federal Record of Decision.

SAIP-PC00011 - 8

Comment: 4.4. Combined Center-Around and Exempted Center Taxiway

An alternative operational restriction that might permit a non-conforming center taxiway would use the center taxiway only as an end-around "exitway". Arriving aircraft turning off of runway 25L or 25R on to the center taxiway would stay parallel to, and centered between, the two runways and exit by going to the end and around runway 25R. This would eliminate the risk associated with aircraft on the short taxiways connecting the runways and the center taxiway, viz., aircraft arriving on 25L would never approach runway 25R for crossing on a taxiway to the gate.

This "center taxiway as only an exitway" operational restriction may have to be applied only to larger Group V (B747) and Group VI (A380) aircraft in order to achieve non-conforming center taxiway status. Current LAX runway 25L-7R and 25R-7L lateral separation of 750 feet may be adequate to permit non-restricted use of a new center taxiway for smaller aircraft.

Response: The suggested use of the center taxiway by the commentor fails to realize that crossings on the runway extended centerline are also considered - in terms of air traffic control and pilot's perspective - as "crossings" and therefore require Airport Traffic Control Clearance. As documented in the South Airfield and New Large Aircraft Study, for the FAA to grant a "free flow" end around taxiway, the location of this taxiway off then end of the runway would clear a series of protective surfaces as defined by Terminal Instrument Procedures (TERPS - FAA Order 8260.3B) and the requirements needed to protect the approach light systems (ALS Light Plane). Using this criteria be used in the development of a "free-flow" taxiway, would place the alignment of the taxiway at the far west of the airport boundary and documented in the study.

The use of taxiway restrictions such as the ones suggested in the comment (size of aircraft) would add controller workload and the potential for human error with potential safety consequences.

Please see TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00011 - 9

Comment: 4.5 Remove High-Speed Runway Turnoffs

Reference 4 states that "The most common runway incursions at LAX occur when an aircraft arriving on runway 25L exits at one of the high-speed exits, and then fails to stop the aircraft before overshooting the hold-short bars for runway 25R. The intent of the center taxiway concept is to force aircraft to turn onto a parallel center taxiway, thus eliminating the "straight shot" to runway 25R that exists on the current high-speed exits."

It would appear that if the high-speed exits from the runway were reconfigured to a "low-speed" configuration, then the aircraft speed and tendency to overshoot the runway 25R hold-short bars would be reduced. With a new center taxiway the high-speed exits may need to be reconfigured to a lower speed exit in any case. The placement of the center taxiway will eliminate the "straight

shot" to runway 25R referred to and provide a relatively short distance of only about 550 to 600 feet for the aircraft to slow between departing the runway and arriving at the center taxiway where it has to make a slow turn onto the center taxiway. Controllers may prefer a higher speed runway exit to quickly clear the runway, but the high speed exit coupled with a new center taxiway that essentially cuts in half the time to slow the aircraft as it departs the runway and before turning may lead to even more troubles than the current taxiway configuration.

Response: As reported by the FAA, the majority of the runway incursions at LAX are concentrated in the South Airfield. Even within the South Airfield, the distribution of these incidents varies, with a large percentage being concentrated on what are being termed "high-speed" exit taxiways. LAX has recorded numerous incident on right-angled taxiways as well, making this issue not just a problem with rapid turn offs but with the general layout of the South Airfield and its relationship to the Central Terminal Area. Reconfiguring the high speed exit taxiways to right angled, which require a much slower exit speed will also increase the time aircraft need to remain on the runway (Runway Occupancy Time - ROT), affecting the ability of LAX runways to accept aircraft traffic. This in turn could lead to the reassignment of arrival aircraft to other runways and therefore creating additional airfield congestion.

Please see TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00011 - 10

Comment: 4.6 Reconfigure Taxiways, No Center Taxiway

The new center taxiway would not, if used as planned, eliminate the aircraft crossings of runway 25R that are stated to be the underlying source of incursion risks. As now planned, the primary function of the new center taxiway is to slow arriving aircraft to avoid the "straight shot" from runway 25L across to runway 25R and to provide a center "staging" area between runway 25L and 25R. It may be possible to achieve these same objectives without adding the new center taxiway that creates the requirement for the high-cost, short-distance (55 feet) relocation of runway 25L-7R.

Essentially the same aircraft taxi patterns that would be achieved with the new center taxiway can be achieved by only adding center "stubs" that do not connect to make a continuous center taxiway. The center stub would be a short stretch of taxiway parallel and centered between runways 25L-7R and 25R-7L that would be part of the reconfigured taxiways that now lie between and connect the two runways. The current taxiways between runways 25L-7R and 25R- 7L would be reconfigured into an "S shape" that would include the "center-hold" stub. Each taxiway would be a separate taxiway as now exists and would serve the same function as currently, but with the elimination of the "straight shot" and the addition of a center-hold area. Arriving aircraft would be directed to a designated taxiway and to hold at the center-hold area if conflicting traffic that risked an incursion was present.

This reshaping of the existing taxiways between runways 25L-7R and 25R-7L could avoid the great cost of relocating runway 25L-7R, avoid the lengthy closing of the runway, and provide the same incursion risk reduction as the proposed center taxiway.

Response: This comment does not raise an environmental impact or CEQA issue, but rather questions the wisdom of the policy decision that the City made at the time it adopted the LAX Master Plan. Accordingly, no further response is required. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

As noted by the commentor, the center taxiway would provide an area between the two runways where aircraft would be temporarily staged before they are safely cleared to cross the departure runway (Runway 25R). Severing the center taxiway, as suggested by the comment, would impair Airport Traffic Control's ability to manage the traffic efficiently and effectively, therefore increasing the controller's workload. Controllers should be afforded the opportunity and an airfield layout to safely manage the movement of aircraft. The center taxiway as proposed in the SAIP has been reviewed by LAX controllers and their input has been incorporated in the proposed layout.

Please see TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00011 - 11

Comment: 5.0 LAX Runway Incursions

The FAA keeps extensive statistics on runway incursions⁹. It has determined that during the 4-year period 2000-2003 LAX reported more runway incursions than any other airport in the nation. However, the characteristics of these LAX incursions are unlike the national averages. LAX incursions were attributed 85% to pilot deviations compared to the national average of 57%, and 9% to controller errors compared to the national average of 23%. This difference at LAX is easily understood. Two thirds of all incursions at LAX occurred on runway 25R and the majority of these occurred at the taxiway "Mike" and "November" intersections due to aircraft that failed to hold short of runway 25R after landing on 25L.

These data indicate a well defined and localized incursion problem at LAX. It may be expected that a targeted program to reduce incursions at these two intersections would have the greatest payoff. It should be noted that taxiway Mike is a high-speed turnoff with the "straight-shot" through to runway 25R. Reference 4 identified the "straight-shot" from runway 25L to runway 25R as especially troublesome. The proposed new center taxiway will be twice as close as runway 25R for an arriving aircraft turning off at the high-speed Mike taxiway, so it would appear to exacerbate the slow-down and "hold short" problem.

The new center taxiway configuration, as planned, retains the necessity for the aircraft arriving on runway 25L to cross runway 25R, so the opportunity for incursions is not removed. At best, the proposed center taxiway configuration slows aircraft crossing 25R which should portend reduced severity of incursions. It will, however, add to the number of tower-aircraft communications, and this added traffic management complexity, as noted in the simulation study results, will provide additional opportunity for the human errors associated with communications.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. Please also see Responses to Comments SAIP-AL00005-52 through SAIP-AL00005-54 and SAIP-AL00005-57 through SAIP-AL00005-65.

SAIP-PC00011 - 12

Comment: 5.1 Runway Incursion Characteristics

The FAA's Runway Safety Blueprint 2002 -2004⁸, identifies 5 key points. One states, "Human factors is (sic) the common denominator in every runway incursion." Runway-taxiway configuration may be an underlying contributor to runway incursions, but the primary causes are communications and mental errors. These errors include failures in readback, hearback, non-compliance after readback, forgotten aircraft, and other human errors.

The FAA's Runway Safety Report⁹ states that "The crossing of a hold short line without a clearance from air traffic control - the pilot fails to follow the controller's hold short instruction or the pilot correctly acknowledges the hold short instruction but continues into the runway environment - is the predominant pilot error that results in a runway incursion." This is the predominant problem at LAX.

The FAA has had active programs for over a decade aimed at reduction of runway incursions and their severity. Data trends indicate that these programs have been effective. These programs include coordinated efforts with the aviation community such as the Commercial Aviation Safety Team (CAST), General Aviation Joint Steering Committee (GA JSC), and a collaboration of the two, the Runway Incursion Joint Safety Implementation Team (RI JSIT). The current FAA Runway

Safety Blueprint is based on the work of these programs. The initial Blueprint in 2000 identified 7 thrusts for improved runway safety and the updated Blueprint in 2004 evolved these thrusts into 8 goals. None of these thrusts and goals focused on runway-taxiway configuration. Areas identified as key for improving runway safety included training, communications, procedures, airport markings, safety and situational awareness, and technology.

Because the LAX incursions are characterized as 85% pilot deviations and these deviations are "human error", a runway safety focus at LAX needs to incorporate those key thrusts/goals applicable to these pilot errors.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Again, the SAIP does not purport to reduce the likelihood of human error, but it would provide a means to reduce the likelihood of human error resulting in a runway incursion. Please also see Responses to Comments SAIP-AL00005-52 through SAIP-AL00005-54 and SAIP-AL00005-57 through SAIP-AL00005-65.

While it is correct that taxiway Mike is a high speed turnoff which directly leads to runway 25R, the commentor fails to appreciate that the new center taxiway will prevent aircraft from directly entering the runway by providing a space to maintain a holding position short of the runway.

SAIP-PC00011 - 13

Comment: 5.2 Visual and Audible Taxiway Signals

To reduce LAX runway incursions that are 85% pilot errors the pilot needs improved visual and audible cues that will confirm controller directions and signal proper aircraft movement. These improved cues are available through "low tech" methods such as taxiway paint markings and "high-tech" methods including cues based on remote traffic sensors and computer processed and displayed information.

Revised holding position markings, surface-painted holding position signs, and enhanced taxiway centerlines have been shown to enhance pilot awareness of position'. It is anticipated that future changes and additions to surface markings and signs can add to pilot awareness of aircraft position. Additional information is needed by the pilot to enhance and verify controller directions. Technology is providing many opportunities to the pilot to verify controller directions and to verify that incursion risks are not present.

The FAA developed and deployed the Airport Movement Area Safety System (AMASS) at several major airports including LAX. This is a surface area radar system that utilizes safety logic software to predict potential collisions and provide visual and aural warnings to traffic controllers. It has had limited success due to warnings coming late and false warnings. The NTSB stated¹¹ that "In at least one recent accident (LAX, August 2004) there are strong indications that AMASS alerted the controller beyond "the point of no return" (that is, after it would have been possible to avoid the collision)." It stated further that "the Safety Board is concerned that this system primarily relies on the controller to communicate with flight crews to prevent a ground collision", and that "Until there is a system in place to positively control ground movements of all aircraft, with direct warning to pilots, the potential for this type of disaster will continue to be high."

Advanced technology provides, and will provide, increasing opportunities to provide direct incursion warnings to the flight crew. A Runway Status Lights (RWSL) system now in development and test detects the presence and motion of aircraft on runways and taxiways, assesses possible traffic conflicts, and illuminates runway entrance lights to indicate if it is unsafe to cross.

Cockpit-located moving map displays of airport traffic have great promise in providing information for incursion prevention direct to the pilot. The increasing availability of satellite-based Global Positioning System (GPS) information in the cockpit, software to process information on all area traffic, and instrument panel displays offer a potential capability for an independent means to supplement the traffic control management now done by radar systems. The RI JSIT (Ref 8, Appendix A) stated that "the moving map display systems were the most powerful intervention for runway incursion prevention", and that "nearly half of these deviations could be prevented using a moving map display with only GPS own-ship information."

These opportunities for improved visual and audible pilot signals provide a means of directly targeting the "85%" pilot errors causing incursions at LAX.

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here. Nonetheless, to provide full disclosure and discussion, the following further response is provided.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. Again, the SAIP does not purport to reduce the likelihood of human error, but it would provide a means for human error from resulting in a runway incursion. The suggestions provided by the commentor are good and sound suggestions, but do not replace the effectiveness of the SAIP in terms of providing a buffer to prevent runway incursions.

SAIP-PC00011 - 14

Comment: 6.0 Summary

It is generally accepted that LAX needs modernization, especially to enhance security and safety. This paper is not intended to diminish the urgency of these needs. To the contrary, it recognizes that these needs are immediate, and, accordingly, security and safety enhancements should be addressed that can lead to near-term, cost-effective enhancements. This paper points out that the planned relocation of runway 25L-7R does not address security, is massive in cost, is not a near-term enhancement (requiring more than 2 years of construction), and with limited effectiveness in inducing runway incursions it can not be a cost-effective enhancement.

The conclusions that can be drawn from the research reported here include:

- The LAX runway incursion problem is well understood and focuses on pilot deviations resulting when aircraft arriving on runway 25L fail to "hold short" or cross over 25R without proper clearance.
- The NASA Ames FutureFlight Central simulation study provides inadequate justification for the claimed effectiveness in reducing runway incursions by relocating runway 25L-7R and adding a center taxiway.
- The planned center taxiway addition will not diminish the requirements for arriving aircraft "hold shorts" and crossovers of runway 25R that are the underlying contributor to past incursions.
- The large majority of LAX runway incursions (85%) are caused by pilot deviations that are the result of a loss or lack of situational awareness. The planned project does not address this primary cause.
- There exist runway and taxiway reconfiguration alternatives that have not been addressed that may offer lower cost, more rapid and more effective ways to address the runway incursion problem.

In summary, it is not reasonable to conclude based on the information presented in the LAX modernization reports, in the SAIP Draft EIR, and in the studied FAA and air safety expert reports that the proposed massive project to relocate runway 25L-7R one-quarter of its width and add a new center taxiway is a prudent or effective safety enhancement.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP.

This comment is primarily a summary of the prior comments in this letter. Please also see Responses to Comments SAIP-PC00011-2 through SAIP-PC00011-13. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions. The planning documents prepared by LAWA throughout the Master Plan process and since provide ample support that the SAIP is a prudent feasible and necessary improvement.

SAIP-PC00012 Cope, Danna None Provided 9/8/2005

SAIP-PC00012 - 1

Comment: The SAIP DEIR is a document to enlarge LAX to accommodate the A380 and other New Large Aircraft (NLA). The project does not propose the most cost- or safety-effective measures to eliminate Runway Incursions.

Response: The SAIP is being pursued to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. As discussed in Chapter Two of this Final EIR, the south airfield has experienced a high number of runway incursions. Runway incursions represent a serious threat to aviation safety. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00012 - 2

Comment: This is especially discouraging in light of the state goal of LAWA to achieve a regional solution to air traffic problems. LAWA is in the enviable position of controlling four separate air fields - and two of them, Ontario and Palmdale, could be renovated a far less cost to accommodate NLAs.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00012 - 3

Comment: Particularly disturbing is the ill-advised speed in accepting bids on the project before the EIR process was completed. Changes, additional studies, and/or reevaluation of the project should be considered; but this will be a legal morass if the contracts have already been drawn up and/or executed, or even if bids have been made based upon the initial assumptions in the EIR.

Response: Please see Response to Comment SAIP-PC00006-7.

SAIP-PC00012 - 4

Comment: The study indicates that there would be "significant and unavoidable impacts," yet there was little in the SAIP EIR in terms of exploring and including alternatives and/or mitigation measures, especially for the post-construction end-result of the SAIP. These must be included.

Response: Comment noted. Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR and Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

SAIP-PC00012 - 5

Comment: The SAIP does not address the impacts this project would have on surrounding communities in terms of noise, air pollution, and traffic impacts after the construction phase. It does indicate problems expected to arise during construction, but largely ignores the long-term impacts.

Response: Because the EIR for the SAIP is tiered from the LAX Master Plan Final EIR, CEQA does not require discussion of the kinds of impacts described by the commentor. Those impacts were identified and analyzed in Chapter 4 of the LAX Master Plan Final EIR. Please see Chapter 4, Section 4.1.6 of the LAX Master Plan Final EIR for a discussion on Noise, Section 4.6.6 for discussion on Air Quality, and Section 4.3.2.6 for a discussion on Off-Airport Surface Traffic environmental consequences. Please also see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00012 - 6

Comment: The SAIP DEIR states that "this document does not reevaluate project alternatives." However, during the Stakeholder process a study of Runway Incursions (RI) was cited as the reason for the project but LAWA declined to identify the categories of incursions. Therefore, discussion of the RI's is germane to the SAIP DEIR.

How many Safety Incidents (SI) were included in the count of "incursions" in the LAWA-cited study? Were any of the incursions or incidents caused by anything other than human error?

The five Category A RIs for 2002 that were reported in the Master plan EIS/EIR were challenged during the review process. However, when the comments were published, LAX again stated that these incursions had happened.

Using LAX charts and FAA tower information from 2002 to 2005, there are no Category A RI's that match the LAX claims. On the contrary, these figures show the following information:

Year	Runway Incursions				Safety Incidents
	A	B	C	D	
2002	0	2	2	2	8
2003	0	0	1	10	5
2004	0	1	2	2	4
2005	0	3	0	0	3 (through January 2005)
Totals	0	3	5	14	20

The danger and importance of eliminating Category A RI's cannot and should not be minimized in any way. Neither should they be used as fuel for a bully pulpit to frighten people. There is more than a strong possibility that all categories of RI's were included and deemed as dangerous as Category A incursions during the LAX Master Plan presentations. Therefore, the Master Plan EIS/EIR (especially the SAIP) won approval based upon biased information.

All the discussion in the SAIP seems to be based on the assumption that the RI's are a result of the aircraft going too fast to stop. The probability that pilots may simply have been busy and did not notice that they were crossing the HOLD bar was ignored.

If RI's are truly considered to be the most important safety issue, then the following problems must be addressed:

- Programs which address better or more extensive training or personnel to eliminate human errors must be included, especially in light of the fact that human errors are the cause of most of the incursions and incidents.

- Measures to improve HOLD bars, guard rails, runway lighting, and radio transmission must be included. This approach has worked at other airfields. In fact, the center-line taxiway does nothing to deter the airline pilot who erroneously taxis beyond the HOLD bar in the current airfield configuration from doing so with the next taxiway configuration without improving the HOLD bars.

The HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004) states that Runway Incursions (RI's) have no single or simple cause. Factors involved in RI's are: controller workload, pilot/controller miscommunication, airfield layout, inadequate visual aids, and human factors.

Section 10 of the HNTB report shows the following FAA facts throughout the U.S. (about RI's):

- Weather is not a factor in 89% of the cases;
- Pilots enter the runway/taxiway without a clearance in 23 %;
- Pilots enter the wrong runway in 10%;
- Pilots are distracted in 17%;
- Pilots are disoriented or lost in 12%;
- Pilots are unfamiliar with ATC or the language in 22%;
- Pilots are unfamiliar with the airport in 19%;
- General Aviation-type aircraft make up 69% of the RIs;
- Low time pilots (< 100 hrs) make up 32%;
- High time pilots (> 3000 hrs) account for 10%; and
- The five aircraft most commonly involved are single engine general aviation airplanes.
-

In the third paragraph of Section 2.3.3 of the SAIP, it is noted that ... "the center taxiway alternative would provide the greatest benefits during all LAX operation conditions without causing excessive delay." The emphasis here is clearly on through-put and minimizing delay, not on safety.

Section 2.1 also claimed that: "The airfield modification ...(would) improve the ability of LAX to handle new large aircraft (NLA), thereby helping the airport sustain and advance its role as the region's international gateway. As of July 2003, seven of the int'l air carriers at LAX currently using the B747 placed orders for the Airbus A380." The airlines will use LAX whether or not the SAIP project is built. They could use Ontario or Palmdale, if encouraged to do so.

According to the HNTB study, the center taxiway should reduce the likelihood of runway incursions in the south airfield. A project costing \$38 million to only reduce the likelihood of RI's is not cost effective - especially when other procedures were not considered. Again, the SIP appears to be an accommodation for NLA rather than for safety.

Response: The content to this comment is similar to comment SAIP-PC00010-7; please refer to Response to Comment SAIP-PC00010-7.

SAIP-PC00012 - 7

Comment: In Section 1.4, pg I-17, the SAIP does acknowledge that "The areas of known controversy are related primarily to potential aircraft noise exposure in the City of El Segundo related to the 55-foot relocation of Runway 7R-25L to the south..."

Because the aircraft would be starting up in mid-field with engine blast now pointed directly at the nearby community to the south of the airfield, landings (and some take-offs) would be occurring 55 feet closer to the communities to the South and East, and flight paths would shift further South, new and specific noise studies must be included to measure this additional noise impact, including Single-Event and Time Above level impacts.

Response: The content of this comment is similar to comments SAIP-PC00010-8 and SAIP-PC00006-85; please refer to Responses to Comments SAIP-PC00010-8 and SAIP-PC00006-85.

SAIP-PC00012 - 8

Comment: The statement in the SAIP (page I-13) that "runway use patterns would revert back to pre-SAIP construction conditions following the relocation of Runway 7R-25L, the potentially significant aircraft noise impacts caused by construction of the SAIP would be temporary," is not valid. The 65dB CNEL contour will be affected, as well as Single Event and Time Above noise impacts.

Response: The content of this comment is similar to comment SAIP-PC00010-12; please refer to Response to Comment SAIP-PC00010-12.

SAIP-PC00012 - 9

Comment: On Page I-13, IV-188, the SAIP states that "noisy" equipment will be replaced with "quieter" equipment only "when technically and economically feasible." feasible" Who would judge what is technically and economically feasible? Would cost over-runs eliminate sound mitigation?

Response: The content of this comment is similar to comment SAIP-PC00010-13; please refer to Response to Comment SAIP-PC00010-13.

SAIP-PC00012 - 10

Comment: On page IV-188, the SAIP DEIR states that periodic compliance testing by LAWA staff "may" be conducted to confirm that equipment on site is well maintained and meets noise emission guidelines. This testing must be mandatory and fees imposed for non-compliance for noise and air pollution guidelines. In addition, Saturday mornings should be included as noise sensitive hours. Saturday mornings.

Response: This comment is substantially similar to comments SAIP-PC00010-14 and SAIP-PC00010-16; please refer to Responses to Comments SAIP-PC00010-14 and SAIP-PC00010-16.

SAIP-PC00012 - 11

Comment: On page IV-187 the SAIP DEIR states that the contractor "may" be required to subcontract with an acoustical engineer to develop noise control and monitoring plans for the construction. Noise control and monitoring plans for the construction must be mandatory.

Response: The content of this comment is similar to comment SAIP-PC00010-19; please refer to Response to Comment SAIP-PC00010-19.

SAIP-PC00012 - 12

Comment: The SAIP DEIR (in I-14) states that drivers will be instructed to use freeways and nearby arterials, and to avoid residential communities. This mitigation must be further delineated. Drivers should be mandated to use the recommended roads. There must be a monitoring, and fee, or other disincentive, to enforce the usage of the "haul routes."

Response: The contract between LAWA and SAIP construction contractors will contain provisions that specify designated freeways and non-residential streets for SAIP related truck traffic. The specifications will also provide for a financial penalty for non-compliance with the contract requirements.

Please see Response to Comment SAIP-PC00010-28 for discussion of specific roadways comprising designated truck routes for the SAIP.

Please see Response to Comment SAIP-PC00006-38 for discussion regarding LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) commitments pertaining to traffic, compliance and enforcement provisions, and methods for monitoring contractor compliance with contract requirements.

SAIP-PC00012 - 13

Comment: The runway relocation would also affect geographic location of the Runway Protection Zone (RPZ) for that runway. The "relocated" RPZ, ideally an obstacle-free zone, will enclose a part of a condominium building in El Segundo as a result of the runway being moved. Ideally, an RPZ is to be obstacle-free and should at least be acknowledged in a proposal that supposedly adheres to the FAA's Advisory Circular for Airport Design standards (AC 150/5300-13).

Response: The content of this comment is similar to comment SAIP-PC00006-88; please refer to Response to Comment SAIP-PC00006-88.

SAIP-PC00012 - 14

Comment: As stated on page IV-140, the "SAIP would add incrementally to the already high cumulative impacts in the Los Angeles Basin near LAX." The proposed mitigation measures are inadequate for the potential significant impacts to human health. The Air Quality Source Apportionment Study, referenced on page I-11, should have been concluded prior to this report. The additional FlyAway sites noted on pages I-10 and IV-133 should have been implemented prior to the release of the SAIP DEIR.

Response: The content of this comment is similar to comment SAIP-PC00010-22; please refer to Response to Comment SAIP-PC00010-22.

SAIP-PC00012 - 15

Comment: Stating (IV-6) that it would be speculation to analyze the environmental impacts of the project, yet it is deemed "unlikely" that the project would contribute appreciably to the impacts. This is rank speculation. Detailed studies must be made of the potential environmental impacts.

Response: The content of this comment is essentially the same as comment SAIP-PC00010-21. Please see Response to Comment SAIP-PC00010-21. Please also see Topical Response TR-SAIP-GEN-2 regarding the analysis of cumulative impacts in the Draft EIR.

SAIP-PC00012 - 16

Comment: The LAX study of air quality in the area of LAX, should have been concluded prior to the issuance of the SAIP DEIR and the study included in the DEIR. Granted the events of 9/11 put a halt to the study, but it should have been reinitiated and concluded by now.

Response: The content of this comment is similar to comment SAIP-PC00010-23; please refer to Response to Comment SAIP-PC00010-23.

SAIP-PC00012 - 17

Comment: Why is there no permanent monitoring station for toxic air contaminants located at or near LAX, as stated on page IV-131? LAWA should demand that the appropriate agency install the station.

Response: The content of this comment is similar to comment SAIP-PC00010-24; please refer to Response to Comment SAIP-PC00010-24.

SAIP-PC00012 - 18

Comment: According to the SAIP, "If net airport peak hour trips exceed 8236" or "78.9 MAP" is exceeded, a re-study shall be incorporated. What form would this re-study take? A new EIR or a new-tiered EIR? Would a re-study include the possibility that LAWA could change those maximum figures? What additional mitigation measures are included to protect the surrounding communities if these maximums were to be exceeded?

Response: The content of this comment is similar to comment SAIP-PC00010-25; please refer to Response to Comment SAIP-PC00010-25.

SAIP-PC00012 - 19

Comment: What would happen if the 3.1 MAT limit of cargo were exceeded? What measures are included to monitor and/or enforce this limit?

Response: The content of this comment is essentially the same as comment SAIP-PC00010-25; please refer to Response to Comment SAIP-PC00010-25.

SAIP-PC00012 - 20

Comment: How would LAWA "encourage" (P. 2-1, 1.2) other airports to assume a greater load? What incentives, fees, or other methods would be instigated? How would they be funded? How would they be monitored? Why accommodate the NLA's at LAX when the airlines should have been encouraged and instructed to utilize Ontario or Palmdale?

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00012 - 21

Comment: Although the SAIP indicates that certain items to mitigate the drainage impacts are not within their jurisdiction, LAWA does not indicate what it would or could do to attempt to influence those entities with jurisdiction of the issue (I-6). An in p IV-21, 4.1.4.2 the SAIP states that no significant drainage impacts would occur. Who would define and determine what is significant or substantial?

Response: The content of this comment is essentially the same as comment SAIP-PC00010-27; please refer to Response to Comment SAIP-PC00010-27.

SAIP-PC00012 - 22

Comment: How would LAWA enforce construction delivery ties as noted in 1-7.1.3.2.2. C-1? In the same section under ST-12, how would LAWA "encourage" truck deliveries at night? And how noisy would night deliveries be? What incentives or fees would be instigated? How would they be funded and how would they be monitored?

Response: The content of this comment is identical to comment SAIP-PC00010-29; please refer to Response to Comment SAIP-PC00010-29.

SAIP-PC00012 - 23

Comment: In (1-11) 1.3.4.2AQ 2, school air filters are listed for qualifying public schools, but there is no mention of private schools. Why were qualifying private schools not included?

Response: The content of this comment is essentially the same as comment SAIP-PC00006-50; please refer to Response to Comment SAIP-PC00006-50.

SAIP-PC00012 - 24

Comment: In (1-13 1.3.5.2 MM-N-8: Who would determine "as far as possible? What parameters would be involved in making decisions? Same section in MM-N-9, who would determine what equipment emits the least "possible" noise? What constraints or parameters would be invoked to make decisions? Who would determine what is technically and economically feasible? What would be the bases for these decisions?

Response: The content of this comment is similar to comments SAIP-PC00006-51, SAIP-PC00006-52, SAIP-PC00010-13, and SAIP-PC00010-14; please refer to Responses to Comments SAIP-PC00006-51, SAIP-PC00006-52, SAIP-PC00010-13, and SAIP-PC00010-14.

SAIP-PC00012 - 25

Comment: In (1-14) MM-N-10, Who would determine what is "necessary" during these sensitive times?

Response: The content of this comment is similar to comment SAIP-PC00006-53; please refer to Response to Comment SAIP-PC00006-53.

SAIP-PC00012 - 26

Comment: Same section, ST-16, who would determine that every effort would be made? What constraints would be used to make these determinations?

Response: The content of this comment is identical to comment SAIP-PC00010-18; please refer to Response to Comment SAIP-PC00010-18.

SAIP-PC00012 - 27

Comment: What school districts will be in the study area (1-15) MM-LU-3? It is inconceivable that anyone anywhere believes that noise in a classroom does not hinder the education process. What could possibly be a replacement threshold other than no learning disruptions?

Response: The content of this comment is similar to comment SAIP-PC00006-79; please refer to Response to Comment SAIP-PC00006-79.

SAIP-PC00012 - 28

Comment: In terms of environmental justice, the realignment of 25L greatly impacts a new section of Lennox and South Central L.A. Where are the specific analysis of the additional air and noise pollution impacts?

Response: The content of this comment is similar to comment SAIP-PC00010-20; please refer to Response to Comment SAIP-PC00010-20.

SAIP-PC00012 - 29

Comment: There must be a comparison of how many aircraft currently are able to land on Runway 25L and immediately cross 25R via the high-speed taxiways vs how many aircraft would be stuck in the center taxiway, waiting for a much longer time-frame to cross 25R. Also needed is a clear indication of how many aircraft could be accommodated on the center taxiway, and what happens to aircraft that could not be accommodated there - would they have to go to the end of 25L and taxi back around 25R and back to the terminals? How many aircraft actually have to taxi around anyway to get to the Northside terminals?

Response: The content of this comment is identical to comment SAIP-PC00010-32; please refer to Response to Comment SAIP-PC00010-32.

SAIP-PC00012 - 30

Comment: There must be a specific study of additional pollutants from aircraft engine exhaust caused by idling engines on incoming aircraft waiting in line to cross Runway 25R. This exhaust must be specifically calculated because this exhaust from all engines is far more polluting than the pollution from aircraft taxiing out from the terminal using just one engine, or (preferably) getting a two from a tug. Recent studies have shown that specific pollutants from aircraft engines are extremely harmful and can be measured.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The content of this comment is similar to comment SAIP-PC00006-68; please refer to Response to Comment SAIP-PC00006-68. Please also see Response to Comment SAIP-PC00010-34.

SAIP-PC00012 - 31

Comment: There must be a specific study of additional pollutants from aircraft engines entering, stopping, and turning into and out of the center taxiway. All engines would be starting the aircraft moving after full or almost full stops as the aircraft is maneuvered through right-angle turns. Again, this will be all engines on the aircraft as they are still about to cross a runway.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The content of this comment is essentially the same as comment SAIP-PC00006-68; please refer to Response to Comment SAIP-PC00006-68. Please also see Response to Comment SAIP-PC00010-34.

SAIP-PC00012 - 32

Comment: There must be a specific study of all of the aircraft pollutants (e.g., from extra braking and tire wear) caused by the slowing down for right-angle turns and starting and stopping in line to cross 25R.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. The content of this comment is essentially the same as comment SAIP-PC00010-35; please refer to Response to Comment SAIP-PC00010-35.

SAIP-PC00012 - 33

Comment: There must be a specific study of how many extra gallons of fuel will be needed to start aircraft up after full or almost full stops to maneuver through the center taxiway and cross Runway 25R. What will be the additional expense to the airlines?

Response: The content of this comment is identical to comment SAIP-PC00010-36; please refer to Response to Comment SAIP-PC00010-36.

SAIP-PC00012 - 34

Comment: Where is the study of enhancing the west end of 25L and 25R so that aircraft would more smoothly exit the runways and proceed to their respective terminals in lieu of creating the center taxiway?

Response: The content of this comment is identical to comment SAIP-PC00010-37; please refer to Response to Comment SAIP-PC00010-37. Please also see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00012 - 35

Comment: What would the siting of the realigned 25L be? Is LAWA planning on moving it exactly 55 ft further south from the existing runway? Or will the east end swing slightly more south than the west end? This could make eve more impact on Lennox and South Central L.A.

Response: The content of this comment is identical to comment SAIP-PC00010-38; please refer to Response to Comment SAIP-PC00010-38.

SAIP-PC00012 - 36

Comment: It is ironic that LAWA is suggesting that the imperiled wildlife be transferred to the former El Toro Marie Base (instead of air traffic). There is a much more viable location for wildlife relocation: the Westchester Bluffs. Environmentally speaking. It is far superior to keep wildlife as close to its original habitat as possible.

Response: The content of this comment is similar to comment SAIP-PC00006-86; please see Response to Comment SAIP-PC00006-86 regarding the assessment and selection of potential mitigation sites. As described in Section 4.6 of the SAIP Draft EIR, the FAA owned habitat preserve at the former Marine Corps Air Station El Toro is a 995-acre preserve, the habitats of which are suitable to support breeding and foraging activities for both the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and the loggerhead shrike (*Lanius ludovicianus*).

SAIP-PC00013 Jones, Wendy None Provided 9/10/2005

The content of this comment letter is identical to comment letter SAIP-PC00008; please refer to the responses to comment letter SAIP-PC00008.

SAIP-PC00014 McCarty, John M. None Provided 9/14/2005

SAIP-PC00014 - 1

Comment: INTRODUCTION

On Tuesday, March 3rd, 2005, Rick White, the president and CEO of a high-tech lobbying firm called TechNet, which represents 200 cutting-edge firms, including Microsoft, Intel Corp., Cisco Systems and Hewlett Packard, met with Cabinet members and congressional leaders in Washington, D.C. to discuss the possibility that the U.S. was losing its competitive edge. Said he:

The world is changing a little bit, and frankly there is a significant amount of concern that if we don't make some adjustments, follow the right public policies, do some things that are important, we could find ourselves very quickly losing the advantage we've had for so long.

The writers of this paper believe that the South Airfield Improvement Project (SAIP) is not an example of "the right public policies" that Mr. White discusses. Indeed, we contend that it is an example of the wrong public policies that will result in squandering precious resources for a make-shift, short term, Los Angeles-only airport solution at the expense of a visionary, long term, regional solution.

One would not have had to work in the aerospace industry for a total of fifty years, as the writers of this paper have, to understand that SAIP was not developed "to enhance the safety of operations at the Airport by reducing the potential for runway incursions," as LAWA has advertised. All one would have to do read Aviation Week & Space Technology to understand that the purpose of relocating Runway 7R/25L about 55 feet toward the city of El Segundo is to provide that behemoth of the business, the Airbus A-380, with a runway on which to land. And the A-380 will certainly not enhance the safety factor at LAX. With its size and weight, it will heighten the confusion and congestion that presently exists there.

During the time allotted for the LAX Master Plan, the airlines of the world will experience three changes of near seismic proportions:

1. A long-term change in the price of jet fuel.
2. A change in the nature of domestic competition due to advances in engine technology.
3. A change in the shape of international routes because of a shift in the locus of economic development.

In harmony with Mr. White's statement, we have analyzed these changes in relation to what is taking place at LAX. We respectfully submit our observations and conclusions.

OBSERVATIONS

THE CHANGING PRICE OF JET FUEL

Prior to 1978--a watershed year in the history of commercial aviation in America--the airlines functioned as if they were large components in a nationwide public utility, in much the same way that the 22 operating companies of America's telephone system functioned prior to the breakup of Ma Bell. During those idyllic times, the routes the airlines flew and the fares they charged were assigned and computed by transportation planners who worked in Washington at the Federal Government's Civil Aeronautics Board (CAB). If a CEO of one of the lines came to the conclusion that his costs were increasing, he would appear-hat in hand--before the CAB and plead his case. Then the planners would usually decide to increase his fares. It was a genteel way of conducting business; however, it was not an efficient way.

In 1978, President Jimmy Carter, who was struggling with an economy beset by inflation, set out to convince the Congress that the airline industry should be deregulated to allow competition and new technology to put downward pressure on fares. In this endeavor, the President was assisted by Dr. Alfred E. Kahn, an economics professor at Cornell University, who was serving as the Chairman of the CAB and who did much of the heavy lifting. Despite loud howls of protest from the CEO's of the airlines, Congress did pass the requisite legislation. (All people in business worship at the altar of the Goddess of Competition--until She comes knocking on their doors.) But neither the chaotic conditions that the CEO's had envisioned nor the downward pressure on prices that Carter and Hahn had hoped for manifested itself for almost a quarter of a century. But since that infamous date of 9-11-01, both chaos and falling fares have come to the airline business with a vengeance, and it is safe to say that the industry will never be the same.

America has six major airlines that date back to the halcyon days prior to deregulation, and so they are known in the industry as "the legacy lines." Their names are household words: American, United, Delta, Northwest, Continental, US Airways. And all six are now struggling with financial problems of varying degrees of severity. In the aggregate, these half-a-dozen major lines have lost a whopping \$XX billion between 2000 and 2004, and it has been estimated that they will lose another \$5 billion in 2005. (And as the late Senator "Scoop" Jackson once so sagely observed: "A billion here and a billion there, and pretty soon you're talking about real money.") Some industry-watchers believe one of the six legacy lines will be forced to sell its assets and close its doors within the next five years. (In this industry the "L" word is "liquidation.") According to the conventional wisdom, the afflictions plaguing the legacy lines originate from four sources: (1) the tragedy in New York on 9-11; (2) the SARS epidemic that moved from Asia to Canada; (3) the steeply climbing price of the distillate used as jet fuel, and (4) heightened competition from the discount airlines - such as Southwest and JetBlue that fly small, single-aisle planes using a different business model. But from a long-term standpoint, the changing price of jet fuel is the most destructive force hammering the legacy lines.

US AIRWAYS: Currently the seventh largest airline in America- behind the other five legacy lines and Southwest, (a muscular discount carrier) - it began its career in 1937 carrying mail from Pittsburgh. Although its flies into LAX, the airline has always maintained an East Coast orientation: For a while it even called itself Allegheny Airlines. Badly buffeted by a hostile environment, US Airways opted in August 2002 for breathing room from its creditors under Chapter 11 of the bankruptcy code. During the time that it was protected by the bankruptcy court, the airline's executives put the arm on Uncle Sam via the Air Transportation Stabilization Board (ATSB) for \$900 million in loan guarantees. In March of 2003, it fired up its engines and flew out of bankruptcy, ready and rearing to take on the competition; however, after receiving a severe pummeling, in the

fall of 2004 turned tail and headed back into bankruptcy again where it currently remains. In the summer US Airways announced that it was planning to exit from the protection of Chapter 11 via a merger with America West Holding Corp., a discount line.

UNITED AIRLINES: This aptly named airline was formed when Boeing Air Transport was united with Varney Air Lines, National Air Transport, and Pacific Air Transport. From this aggregation, it grew to be the second largest airline in the U.S. (when measured by the amount of traffic) and the largest player at LAX. Following 9-11, its friendly skies became downright hostile, so United sought solace under the protection of Chapter 11 in November of 2002. And there it has languished. Hoping to follow US Airways' lead, United requested massive loan guarantees three times from the ATSB, and three times it has been rebuffed. The last time, the Federal Government said that it would no longer entertain further requests; therefore, that approach to funding a breakout from bankruptcy is no longer an option. United's new CEO-an oilman who once ran Texaco--contends the airline is strong enough to emerge from Chapter 11 under its own power.

On Wednesday, September 7, 2005, United Airlines parent company filed a long-overdue reorganization plan which stated that it would emerge from under the protection of Chapter 11 on February 1, 2006. America's No. 2 carrier, United has lost over \$10 billion since 2000, and it has spent over three years undergoing major surgery that was initially supposed to take eighteen months. But, according to Tilton:

United has made tremendous progress in our restructuring to improve performance across the board, in costs, revenue, operations and service to our customers.

Perhaps the most important thing that United has accomplished while under the aegis of the bankruptcy court is to judiciously cull out the older, slower, jet-fuel guzzling airliners that it either owned or leased. As a consequence, it now can boast of a fleet that is slimmer and trimmer than those flown by most of its legacy-line competitors. Whether United's management can make money in a highly cyclical business with high fuel prices and a disgruntled work force remains to be seen.

DELTA AIR LINES: The third largest airline in the U.S., Delta is also one of the oldest. A carrier with a southern drawl, it got its start when Huff Deland established a business to spray cotton fields in the Mississippi Delta in 1924. In 1928, it started flying passengers between Dallas to Jackson, MS, under the name of Delta Air Services. After decades of relatively smooth flying, in the spring of 2001 Delta was sitting in the catbird seat, with lucrative routes and a lot of money in the bank that it had earned during the Golden Days of the 1990's. So about that time, some of the members of Delta's pilots' union began to ask themselves the following question: If it is possible to make \$100,000 a year without spending an inordinate time in the cockpit (work does so impinge on golf), why isn't it possible to make \$200,000 and spend even less time in the cockpit? So the pilots' union representatives drafted a proposal and submitted it to top management. Wanting to avoid an internecine struggle with the pilots, the executives said loud and clear: "Hey, it works for me." And so the corporate legal eagles developed a new contract, which well could be called: No Pilot Left Behind. In one fell swoop, Delta's pilots became the highest paid throttle-jockeys in the industry: Senior pilots would make nearly \$300,000 a year for flying planes with nearly an automated flight control system, fledgling pilots would be paid \$100,000, and mid-career pilots would receive \$225,000. It was the kind of lush contract that would cause a euphoric pilot to go out and buy a new set of clubs.

The terrorist attack on 9-11 brought major pain to all of the carriers in the industry, but particularly to United and American which lost both planes and crews. Tourists stayed away in droves, and the business travelers took to the skies only when it was absolutely necessary. Because the airline business is one characterized by high fixed costs, it wasn't very long before all of the legacy lines were racking up major losses. All of them started to slash wages and to retrench - all except Delta.

Leo Mullin, who was then the CEO, and M. Michele Burns, who was then the line's chief financial officer, believed that it was possible to avoid confrontation with the pilots' union by using the strength of Delta's balance sheet to sell bonds and just paper over the rough patch that the line was experiencing. The strategy they concocted was little more than a crapshoot, and while craps might be a fun game for Las Vegas, it is not a smart game to play at a headquarters building in Atlanta. In the borrowing binge that followed, Delta developed a swaying tower of debt instruments. And Delta's debt and leases come in all shapes and sizes: \$4.7 billion in unsecured bonds, \$2.1 billion in aircraft-backed debt known as "equipment trust certificates," another \$4.9 billion on additional

aircraft-related debt known as "enhanced" ETC's, and \$9 billion in noncancelable operating leases on aircraft. (The process of borrowing money to cover current expenses, and putting the airplanes up as collateral is analogous to an agricultural society feasting on its seed corn.) When Delta's executives got off their borrowing binge, the airline carried an onus of \$20.6 billion. And the members of Delta's board of directors understood what was involved in the Delta crapshoot. One has been quoted as saying: "It's not as if the board and management was unaware of the risks. Everyone realized that while this cash infusion from borrowing would enable Delta to continue on without severe financial problems, the business would have to turn around or Delta would have a problem paying all this money." And so while the members of the board sat on their hands, management borrowed money as if there were no tomorrow. And then the business failed to turn around.

The union representing Delta's 7,000 active pilots only made a bad situation worse. The storybook contract they negotiated in the summer of 2001 contained a provision for a 4.5% wage increase. So during a time when the pilots of other airlines were making major wage concessions, the Delta pilots demanded-and got-their wage increases in 2002, 2003, and 2004. According to John Malone, head of the union's leadership council: "At the time we thought that was a fair contract, they never told us we could not afford the contract." So while the pilots chattered aimlessly about the escalating cost of green fees and the difficulty of finding a good caddy, Delta lost \$5.6 billion between 2001 and 2003. The general feeling is that the pilots-particularly the senior pilots-felt they deserved the wage increase. (Hey, \$300,000 X .045 = \$13,500 per year, and that can buy a lot of golf balls.) In October of 2004, the line reported a loss of \$651 million for its third quarter vis-a-vis a loss of \$168 in 2003, and by that time the airline was in a flat spin.

On Monday, September 12th, 2005, a Wall Street Journal article said that insiders opined that Delta would file for Chapter 11 bankruptcy during the week ending on Friday, September 16th. The premier problem facing Delta's management was to put together a financing package worth in the neighborhood of \$1.7 billion to keep the line's planes aloft during restructuring. Because of the borrowing binge undertaken during Leo Mullin reign, Delta would have put in hock all its unencumbered assets (including its gates at New York City's LaGuardia Airport and its routes to Tokyo and London) in order to obtain the financing. Having lost nearly \$10 billion since 2001, Delta's prognosis is guarded at best. Analysts who are close to the company contend that Delta will seek protection under Chapter 11 during the week ending September 17th, 2005.

After reviewing the condition of three of the six legacy lines in the U.S., one industry analyst observed: "There is presently a new chapter being written in the glorious annals of commercial aviation-Chapter 11." The truth is that the remaining three legacy lines are not in much better shape than the prior three.

NORTHWEST AIRLINES: The pride of Minnesota, Northwest Airways, as it was originally called, went into business in the summer of 1926, flying people from Saint Paul to Chicago. In 1947, it started flying DC-4's from Seattle via Anchorage to Tokyo and on to Manila over the polar route; thereafter, it called itself Northwest Orient Airlines. In 1988, shortly after it acquired Republic, it shortened its name to Northwest Airlines to reflect its global reach: It goes to 250 destinations in 20 countries. There is a chance that it will soon go to the bankruptcy court.

With the airline deep in debt, Northwest's management believes that it needs concessions of \$950 million a year from its work force in order not to join US Airways and United in bankruptcy. It could be one tough sell, particularly the union representing Northwest's ground workers, who are not paid nearly as lavishly as are Northwest's pilots. ("Hey, Dude, we ain't in the concessionary business!") And there are those who believe that the \$950 million isn't enough to do the trick. Uff da! as they say in St. Paul. Northwest been able to keep 'em flying during a strike by the Aircraft Mechanics Fraternal Organization by temporary employees and managerial people with aircraft maintenance experience. On Monday, September 12 the line defaulted on a payment of \$18.7 million that it was supposed to make to one of commuter affiliates. People familiar with the airline, maintain that the probability of Northwest declaring bankruptcy during the week ending September 17th, 2005 is very high. Since the downward spiral in the industry, which began in 2001, Northwest has lost nearly \$3 billion.

AMERICAN AIRLINES: This is another aptly named carrier because it is the biggest airline in America. Appropriately, it was founded in Texas, where all things are supposed to be big. American's net losses during the past three years totaled \$6.5 billion-and that's a whole heap a

money even in Texas. As one would expect from the behemoth of the business that's headquartered in Dallas, American has a whole passel of planes - little planes, middle-sized planes, and big planes. It has a total of 801 birds, and that is not counting the very little birds that are owned by American Eagle, its regional service. It has some planes made by Airbus, the European airframe producer; lots of planes made by Boeing; lots of planes made by Fokker, the Dutch bird builder; and lots and lots of planes made by McDonnell Douglas (360 of them). American missed flying into bankruptcy by a matter of hours in 2003, and it is again racking up losses.

CONTINENTAL AIRLINES: In a segment of the industry where the lines seem to trend from bad to worse, Continental is the exception that proves the rule. It started in Texas back in 1934 as the southwest unit of Varney Speed Lines. Since that time it has become no stranger to the bankruptcy courts. It was protected from creditors by Chapter 11 between 1983 and 1987 and again between 1990 and 1992. In 1994, it looked as if Continental was ready for another session before the bankruptcy judge. Employees, deathly tired of working for an airline that was on life support, hoped that someone on the board would bring in a messianic leader that would fly them to the promised land-or at least to sustained profitability. That someone on the board turned out to be a Texas money mogul named David Bonderman (a Harvard Business Law grad) who had corralled the capital required to propel Continental's flight from bankruptcy in 1992. Then Bonderman brought in Gordon Bethune from Boeing.

In an industry where the average CEO does not know which end of the engine the fire comes out of, Bethune was a living, breathing anomaly. It was as if someone had taken Henry Ford - the mechanic turned production sophisticate - and placed him on the sixteenth floor of the GM headquarters amid all the beancounters. A high school dropout, he was an aviation mechanic in the Navy, so he didn't have any trouble talking with people repairing Continental's engines. Indeed, he sounded like someone who knew what it was like to have grease under his fingernails. (He is a good man with a four mouth.) Once, when discussing the vicissitudes of the business, he remarked: "They don't realize that while you're sitting here talking someone is fucking you, changing a fare, changing a flight, moving something. There's no autopilot, and that's why I've seen a lot of guys come and go." (A quote from Fortune.) A licensed commercial pilot with tickets for the Boeing 757 and 767, he has no difficulty discussing problems with pilots. And standing 6-foot-3, slim and trim, and with a sailor's devilish gleam in his eye, he has no problem talking with the female flight attendants. And most importantly, he understands the role technology plays in the workings of a business model.

So Continental made a lot of money and the employees had a lot of fun. Bethune finally locked horns with Bonderman over what he saw as the latter's conflict of interest (Bonderman was investing in another airline), and they both ended up by agreeing to leave the airline. As a result, Bethune departed from Continental on January 1st, 2005. (Not all stories in American business have a happy ending.)

Continental Airlines reported losses in 2004, and it expects to have more in 2005.

The Jet Fuel Problem:

Recently, the U.S. trade gap (the imbalance between what America sells abroad and what it imports) has grown into a yawning chasm. The deficit was a whopping \$-617.07 billion for all of 2004, and the numbers for May and June (\$-55.4 and \$-58.8 billion respectively) would indicate that the 2005 total will exceed that record amount. Over half of the deterioration between May and June is a result of America's surging bill for foreign oil, which hit a record high of \$19.9 billion, an increase of nearly 10 percent from May.

America's trade deficit will not decrease by very much very soon because of the high price of imported oil. A barrel of light sweet crude for September delivery was quoted at \$66.78 - up 98 cents - on the New York Mercantile exchange on Friday, August 12th. This means that crude is up over 49% so far this year.

A number of petroleum geologists believe that the world's oil problem is destined to get worse before it gets better. Princeton University geologist, Kenneth S. Deffeyes, recently forecast "a permanent state of oil shortage."

Back in 1956, when the world seemed to be awash in liquid hydrocarbons, M. King Hubbert ran some sophisticated calculations and came to the conclusion that petroleum production in the United States would peak in 1970. This prediction by the geologist from Shell Oil brought an anvil chorus of derision from people in and outside of the earth sciences. But he was right! Production did peak in 1970, and it has been heading down a slippery slope ever since.

Of late, geologists have started to apply Hubbert's calculations to global oil production, and the results of their analyses indicates that the world's oil production would reach an inflection point during the first decade of the 21st century. Based on the results from Hubbert's model, Deffeyes - the Princeton geologist - has concluded that the peak in global production will be in late 2005 or early 2006. Mathew Simmons, a Houston investment banker who has written a book in which he advanced the thesis that Saudi Arabia's oil output will soon head into "irreversible decline," believes that the global turning point will be in 2007 to 2009. And David Goldstein, the author of a book with the dolorous title, *The End of Oil*, has stated that the downturn will start prior to 2010.

David O'Reilly, the Chief Executive of Chevron - the oil company that just snatched Unocal Corp. of El Segundo away from the grasp of the Chinese company CNOOC Ltd. with a bid of \$18.1 - recently told industry executives that: "The time when we could count on cheap oil and even cheaper natural gas is clearly ending." (Wags in the business have started referring to this as the "Brave New World" speech.) O'Reilly was clearly willing to put Chevron's money where his mouth was because the Unocal purchase only works if oil prices stay high. Noted Chevron's Vice Chairman Peter Robertson: "If prices turn out to be where they are today for a long time, we'll have a great win."

And finally, Boone Pickens, the Texas oil tycoon and petroleum geologist who founded Mesa Petroleum Co. and who made buckets of money betting big on rising energy prices, recently said on the subject of oil prices: "I can't tell for sure where we're going, other than up."

In addition to learned opinions on when an inflection point will be reached in global oil production, there is also physical evidence to support their predictions.

Petroleos Mexicanos - an oil giant known in the industry as "Pemex" - was established in 1938 when a wave of nationalism sweeping over Mexico caused the people to boot out all the foreign oil companies. Their leader, President Lazaro Cardenas, declared: "The oil is ours." The immediate problem is that there is a whole lot less of it now than there has been in the recent past. In 1998, Pemex had proven reserves of 34 billion barrels of crude; in 2004, its proven reserves have fallen to 18 billion barrels. This trend is of great importance to the oil refiners and consumers north of the border because Mexico accounts for 16 percent of all of the oil imported by the United States - second only to Canada. It has been estimated that, unless Pemex develops the skill required to strike oil in very hard to reach places (such as the deep sea beds in the Gulf of Mexico), Mexico could be transformed into a net oil importer in the next decade.

While Columbia may be best know as an exporter of cocaine to the United States, it has always been a major player on the international oil stage. Barring major finds, Columbia could become a net oil importer in the next year.

With indications that the global reserves of crude oil are being tapped out, large amounts of international money are starting to move aggressively into Canada's oil-sands industry that has its major field in the land-locked province of Alberta. Oil sands are gritty deposits of a tar-like bitumen (a natural asphalt) that are fiendishly hard to process into crude; consequently, the vast deposits in Alberta are not economically viable until the price of conventional crude is around \$50 per barrel. As a result of the recent run-up in oil prices, the race is on to put down large pipelines through which oil will flow to tankers moored on the coast of British Columbia that will carry the cargo to the West Coast of the U.S. and to Asia. As one would expect, the Chinese are in the van of this advance. In July, Enbridge Inc. of Calgary, Alberta and PetroChina Co, a state-owned Chinese oil company, signed an agreement to share the cost of building a U.S. \$2 billion (\$2.5 billion Canadian) pipeline with a capacity of 400,000 barrels a day. Noted Richard Sandahl, Vice President of Enbridge: "It wasn't an easy commitment for the Chinese to make, but diversification and security of oil supply are priority issues to them." As well it should be. The nine members of China's elite Politburo Standing Committee (all educated as engineers) see with gin-clarity that the Middle Kingdom is rapidly making the transition from a culture based on the bicycle to one based on the automobile. China is currently the world's fourth largest auto market, with sales in 2004 of 2.3

million cars. The Chinese are expected to pass the Germans in auto purchases in 2005, the Japanese in 2010, and the Americans shortly thereafter, and all that moving metal will require veritable oceans of oil. (It's no longer Oil for the Lamps of China. Now it's Oil for the Cars of China.)

The reason that Chevron, of San Ramon, CA, was so anxious to acquire Unocal, of El Segundo, CA, is that the behemoth of the business is in the process of running out of crude to process. In 2004, it pumped from the earth the equivalent of 2.5 million barrels a day and it didn't come close to replacing those barrels. Indeed, its "replacement rate" (the relationship between the oil it pumped to the oil it found) was just 18 percent. Consequently, it could eventually pump itself out of existence. Because Unocal is an exploration and processing company with proven reserves - many of which are located in the South China Sea - it was only natural that it would look to the executives at Chevron as low-hanging fruit ready for plucking.

Crude Prices and the Crack Spread

The canny Scot, Andrew Carnegie, once observed that "While gold is precious, iron is priceless." The same can be said of the recent relationship between crude oil and jet fuel. The difference between crude oil and jet fuel is called a "crack spread" which measures the divergence in dollars per barrel between the prices of refined oil products and West Texas Intermediate crude oil. And while the price of crude oil has been rising, the price of refined oil products, such as jet fuel and diesel fuel, has soared; hence the crack spread has widened significantly. For instance, in 2002, the crack spread on a barrel of jet fuel was \$2.59; in the first half of this year it was \$11.00. Much of this increase has to do with the lack of capacity required to refine crude into distillates. Because the companies don't have enough processing equipment to refine the heavy oils, the price of the distillates (such as the kerosene used for jets and tractors) is pushed up by high demand for these products. (So about one-fifth of the increase in price of jet fuel is due to the widening of the crack spread and the other four-fifths reflects heightened oil prices.)

Downsizing the Air Fleets

There seems to be a consensus building among the CEO's of the legacy lines that they have to get rid of the very big passenger planes that served them well as the linchpins of the hub-to-hub routes.

After its second filing for bankruptcy, US Airways received permission to sell many of its big aircraft - mostly MD-80's which are medium range airliners that are a stretched version of the McDonnell Douglas DC-9. And on the day after Thanksgiving on Black Friday in 2004, US Airways announced a significant pact with General Electric's GE Capital Aviation Services (an aircraft leasor) that will allow it to return 25 of its mainline aircraft (10 Airbus 319's and 15 Boeing 737-300's) during the next three years. As a quid pro quo, GE Capital Aviation Services will lease the airline up to 31 new regional jets during the three year time-span. An integral part of US Airways' get-well plan, the smaller jets will be used to replace both its turboprop birds on short runs and its expensive mainline jets on longer runs.

In the fall of 2004, a spokeswoman for United announced that the carrier was "returning the 747-400's to the lessors." (One does not have to be a brilliant aerodynamicist to figure out that when planes that carry 400 passengers are replaced by planes that carry 162, that the number of take-offs and landings-the air operations-increases at LAX by 2.5 times for that group of passengers.)

In October of 2004, Delta showed a charge in its profit-and-loss statement for selling off its MD-11's, long range, wide body airliners that are basically a longer and re-engined version of the DC-10: they can seat 298 passengers when rigged in three classes, 323 in two, and 410 in a single class. As a part of the airline's "Delta Solution," it will be retiring four types of the 12 separate types of aircraft that the carrier currently uses in order to save on pilot training. And as Delta began to inch closer and closer toward bankruptcy, it announced that it would cull its jet-fuel- guzzling Boeing 767-200 aircraft. It should be noted that not all of these planes would be removed from U.S. air system. Delta has sold 22 of them to ABX Air Inc., which plans to convert them into cargo planes.

After American Airlines had a close brush with bankruptcy in 2003, the executives decided to refurbish the fleet by getting rid of its Boeing 747's. This sloughing off of that grand old hub-buggy has now been accomplished.

And, finally, Continental is retiring its leased MD-80's of which it has twenty.

THE CHANGING NATURE OF DOMESTIC COMPETITION

The Hub-to-Hub Business Model

Very shortly after the deregulation of 1978, the legacy airlines began to establish hubs in the major cities that would be serviced by the long-range, high-capacity, widebody airliners that were available at that time. The three most popular jumbo jets were made by three different airframe manufacturers: The Lockheed L-1011 TriStar, that had three engines and could carry 400 passengers; the McDonnell Douglas DC-10, that had three engines and could carry 380 passengers; and the Boeing 747-200 that had four engines and could carry 397 passengers when rigged in three classes (first, business, and economy), 451 in two classes, and 500 in only one class. While all three airliners were used by the legacy lines in their hub-to-hub business model, the 747 was the most significant airplane because it drove down the operating costs per seat. For most legacy airlines, the 747 (that beautiful bird with the dowager's hump just after of the cockpit) was the legacy lines' favorite hub-buggy.

According to the hub-to-hub model, a widebody airliner would sit on the tarmac at one of the hubs while small, regional jets - which formed the "spokes" in the hub-and-spoke configuration - carried in passengers that would fill up the large aircraft. Once loaded, the big bird would fly to another hub, where it would discharge some passengers and take on others. It would then fly on to another hub and repeat the process. A typical hub flight would be from Los Angeles to Chicago to New York. All of the legacy lines have established several hubs. For instance, United Airlines' major hubs are Los Angeles, San Francisco, Chicago, Denver, and Washington-Dulles.

Because the name of the game in hub-to-hub is "Connections," the legacy lines make sure that their widebody, double-aisle airliners are on the tarmac ready to receive the passengers being carried in by the regional jets at peak passenger hours. For example, the managers of United at LAX would make sure that they have big birds on the deck between 7:00 a.m. and 9:00 a.m. This "peaking," as it is called in the industry, is an expensive activity because the airplanes spend a lot of time queuing up to get out of a congested airport; however, it is an integral part of the hub-to-hub business model. And so Delta Air Lines' advertising ditty goes:

Delta is ready when you are. Delta is ready to fly!

With the passage of time, it has become ever more apparent to astute observers that the hub-to-hub model has some distinct disadvantages, and most of these disadvantages were produced by the need of the airlines to dominate the traffic at their hubs - be all things to all passengers. To have a plane ready for every purpose, all of the legacy lines assembled a mind-boggling array of "equipment," as airliners are called in the industry. For instance, Northwest Airlines flies the following airplanes: 66 Airbus A319's; 78 Airbus A320-200's; 1 Airbus A330-200; 12 Boeing 727-200's; 20 Boeing 747-200's; 16 Boeing 747-400's; 56 Boeing 757-200's; 10 Boeing 757-300's; 24 Douglas DC-10-30/40's; and 167 Douglas DC 9-14/15/31/32's. This assemblage of different planes built by different airframe manufacturers and equipped with different engines from different engine-builders result in heightened cost curves:

- Because each airframe maker has its own cockpit design, flying a lot of different planes means that the legacy lines must spend much money in pilot training.
- Since each pilot is only "checked out" on a few airplanes, pilot-scheduling can be a real migraine.
- Due to the fact that each model of airliner has a unique set of parts, inventory maintenance and control can become a nightmare.
- Because jet engines are very sophisticated mechanisms, owning a host of airliners powered by many disparate engines means that a carrier's mechanics must become a corps of power-plant specialists.

The Point-to-Point Business Model

The discount airlines-such as America West Airlines, AirTran Airways, Jet Blue Airways, and Southwest Airlines-are the very antithesis of the legacy airlines. While the legacy lines fly from one hub to another, the discounters fly direct routes - from point-to-point. And while the hub-to-hub

business model has some distinct disadvantages, the point-to-point business model has some distinct advantages. Instead of trying to be all things to all passengers, the discounters are interested in serving passengers who want to go where they fly-and most of the discounters' advantages result from this difference. The discounters fly various models of one kind of airplane powered by one kind of engine from one engine maker. The best of the bunch-Southwest-has a fleet of 246 aircraft, and they are all Boeing 737's (27 Boeing 737-200's; 194 Boeing 737-300's; and 25 Boeing 737-500's). And Jet Blue currently has a fleet of 45 Airbus A320-200's. This one-size-fits-all approach to equipment purchases is a vehicle for driving down operating costs:

- Because all of the cockpits are the same, pilot training costs are kept to a minimum.
- Since a pilot is a pilot is a pilot (to paraphrase Gertrude Stein), pilot scheduling is a straight forward endeavor.
- Due to the fact that most models have identical parts, inventory costs are minuscule.
- Because the models of engines use by a discount line are very similar, the carrier's mechanics do not have to morph into a band of specialists. For example, the 737-300 has two CFM56-3B-2 turbofan engines; the 737-400 has two CFM56-3B-2 engines; and the 737-500 has two CFM56-3B-1 engines. If the mechanics can repair the engines on a - 300, the chances are pretty good that they can fix the engines on a - 400 and on a -500.
- Since the discounters fly fairly small aircraft, the cabin crews can often take care of cabin cleaning between flights.

The name of the game for the discounters is not Connections, as it is with the legacy lines; instead it is "Equipment Utilization," because the executives who run the low-cost carriers understand that they only make money when their planes are in the air. Therefore, "peaking" is not nearly as important as is "turn-around" - get in, get loaded, and get out. As a consequence, the airliners flying point-to-point routes spend much more time aloft than do those flying hub-to-hub routes.

The Discounters' Response to Opportunity:

Back thirty-eight years ago, when Southwest Airlines was first established as Air Southwest, the low-cost carrier survived by staying on the periphery of the major markets and picking up the passengers that the big lines left behind. But over the years, advances in technology have made Southwest and its clones a force to be reckoned with. After big engines hung on small airframes gave them the requisite range to fly from one coast to the other, they became increasingly more aggressive. Now they run at the legacy lines' strengths: Hi diddle-diddle and right up the middle!

Locked in a long air war with the legacy lines, the low-cost carriers have finally come to the conclusion that Confederate General Nathan Bedford Forrest knew what he was talking about when he opined that to win one must: "Git thar fustest wif' the mostest." So while the legacy lines are either selling off their large airliners or sending them to the bird bone yard in the Mojave Desert, the discounters are pouring on the planes. Southwest, which flies only variations of Boeing's 737, has 150 Boeing 737-700's on order. JetBlue, which from its inception has flown only Airbus A320's, has ordered another 120. And America West has 17 Airbus A320's on order. AirTrans, which is in the midst of a bare-knuckled brawl with Delta over the market around Atlanta, has an affinity for small Boeing birds. It has ordered 23 Boeing 717-200's and 50 Boeing 737-700's with an option for 50 more. In 2004, AirTrans accepted delivery of 11 airplanes (eight 737's and three 717's), and it used them to increase the number of flights between the existing paired cities. In 2005, it will take delivery of 21 more birds (thirteen 737's and eight 717's), and it will use this additional capacity to move into new markets. AirTrans 737-700's will operate with strong CFM56-7B engines, which will provide the range to reach any airfield on the continent. The airline plans to heighten its operations in the Western U.S.

In addition to the new airplanes that the discounters are bringing to domestic market, wannabe low-cost carriers that intend to use the point- to-point business model will certainly bring with them additional capacity in the near future. (The potential for profits attracts companies like honey attracts bees.) An example of an airline that so intends to compete with the legacy lines and the existing discounters is Richard Branson's low-fare carrier, Virgin America, which is scheduled to start operations by the end of 2005. Fred Reid, the leader of Virgin America, (which he refers to as the "born in the USA" airline, taking his cue from "The Boss,") has purchased 11 new A319's and seven A320's, with options for 72 more. In addition, Virgin America has plans to lease 15 new A320's from GE Capital Aviation Services. The A320's will use CFM International's CFM56-6B

engines so the airplanes will have both range and carrying capacity. This new airline will have its base of flight operations in San Francisco and its headquarters in New York.

The independent regional airlines exist because there is a provision in most pilots' union contracts that says that the legacy carriers can outsource flights to separate companies (such as Mesa, Chautauqua, and SkyWest) that fly airliners carrying 70 passengers or fewer. With the legacy carriers in disarray, the regional lines that function as the spokes in the hub-and-spoke configuration are clearly at sixes and sevens, and this provides an opportunity for the discounters to move into that market segment. As a consequence, JetBlue-one of the most entrepreneurial of the low-cost carriers-has recently decided to deviate from its one-size fits-all approach to airframe. It has announced the purchase of 100 Embraer 190's (together with the option for 100 more) for delivery between August 2006 and 2011. The Embraer 190 is jet airliner manufactured by Empresa Brasileira de Aeronautic SA of Brazil, and it is a new entrant at the very high end of the regional market. It has standard seating for 98 passengers. JetBlue intends to use these planes to fly point-to-point flights between both small and medium-sized cities. And Southwest is currently studying the possibilities of buying a fleet of small jets - to be added to the flock of 737's it flies-to compete via direct flights in the regional markets.

Despite the fact that the executives of what has been called "The Sick Six" have been diligently culling their air fleets, the total capacity of the industry has actually increased by about 6% in 2004 because of additions by the low-cost carriers. About a decade ago, the lines that pursued the low-cost, low-fare formula controlled from 7% to 8% of the domestic market. This year they have slightly less than 25%. Wendy Zellner, an industry analyst at Business Week, estimates that the discounters will own 35% of that market by 2009. By the time that the airline industry reaches a position of equilibrium, the low-cost carriers will own between 40% and 50% of the domestic market. And this means that by then a great spate of medium range narrowbody airliners will be attempting to take off and land at congested airports such as LAX.

In the late Spring of 2004, both Southwest and Frontier decided to hold siege on Philadelphia. At that time Philadelphia was a strongpoint of US Airways, where it earned 17 percent of its total revenue. Now, as US Airways strives to become a discounter, it is in the process of "de-emphasizing" Philadelphia. JetBlue has thrown down the gauntlet before both American and United by launching a heightened number of flights between JFK and the West Coast. Since it first came to the Big Apple in 2000, airline fares to the Golden State have plunged by 30%. America West has given United and American a lesson in discount pricing on the Boston-to-San Francisco run. Before the advent of America West, United charged \$1,166 for a one-way, three-day advance purchase ticket; now it charges \$464. Frontier has broken the hammerlock that United has had on the route between Nashville and Denver by offering two point-to-point flights a day between the two cities. Before Frontier arrived on the scene, United charged \$464 for a one way, three-day advanced purchased ducat. Now it charges \$199 - the same as Frontier.

The airline industry has always been a boom-and-bust business; however, since the discount carriers have come on strong in the domestic market, the legacy lines can no longer get well by jacking up the fares during the upswing of the cycle. Notes C. David Cush, American Airlines' chief of sales: "The low-cost carriers are now dictating pricing in our business." But the discounters are not winning the laurels based on price alone. For instance, since its inception a salient aspect of JetBlue's strategy was to compete with both the legacy lines and the other discounters by adding amenities. As a consequence, only A320's straight from the assembly line would be used. (Used airliners need not apply.) And all these new birds would be rigged out with leather seats and 24-channel TV systems. Now other discounters have become highly adroit at playing the service-with-a-smile-and-amenities game. AirTran, American West, and Spirit can boast of posh business class cabins. And rumors abound that the executives at Southwest-the purist of the pure discounters-are seriously considering eliminating their infamous "cattle call" and starting to assign seats. (What's the world coming to?)

The Legacy Lines' Response to Competition

The losses that have been racked up from 2001 to 2004 have made it abundantly clear to all but the most benighted CEO that the pure hub-to-hub business model is destined to go the way of the passenger pigeon, as point-to-point flights achieve hegemony. So the legacy lines have been spending much time and money on developing alternatives to, and variations on, the hub-to-hub model. Examples of these efforts follow.

After two hard landings in the bankruptcy court, Bruce R. Lakefield, CEO at US Airways and his management team have decided that there is much truth in the old adage: If you can't fight 'em, join 'em. The executives have concluded that the time has come to slough off the hub-to-hub business model completely and to embrace the point-to-point model by transforming US Airways into a fully fledged discounter. The truth of the matter is that management really does not have another choice other than liquidation. They are currently in the unenviable position of directing a middle-sized hub-to-hub company, and that's an oxymoron. (If the hub-to-hub model is anything, it is an economies of scale game.) And because US Airways has operating expenses per available seat mile (11.59 cents) that are higher than its seven major competitors, its fare structures are being shredded by the likes of Jet Blue, which has operating expenses of just 6.80 cents. In the summer of 2005, US Airways announced that it planned to exit bankruptcy by merging with a discounter, America West.

United Airlines' selection of a business model remains up in the air. During a speech in Santa Monica, CA, in November, Glenn Tilton, the oilman that is currently at the controls of United, discussed how the airline had been weighed down by an onus of bad management for a very long period of time. Said he: "Years of decisions based on expediency and the interests of disparate constituencies had a corrosive effect on the culture of United Airlines. Cynicism and dysfunction permeated the workforce." Or, as one disgruntled United executive once commented to the writers: "If United is not a circus, why so many clowns?" As Mr. Tilton once pointed out, United has had four CEO's in the past five years, and seven in the past 15 years. Evidently managerial variety is not the answer to United's woes. There are some within the airline that believe that product differentiation is.

United Airlines recently inaugurated an interesting experiment with product differentiation on its runs between New York John F. Kennedy and LAX and between JFK and San Francisco. These lines were originally serviced with a Boeing 767 - a medium to long range widebody airliner with double aisles. Now United has replaced the 767's with Boeing 757, a medium range narrowbody airliner with a single aisle. Because the idea is to cater to the carriage trade that fly between La La Land and the Big Apple, the first class section of the planes have been upgraded with the first lie-flat sleeper seats on any plane flying domestic routes. The seats in business class will be able to recline more than usual, and passengers in coach will have an extra 3 inches of leg room vis-a-vis the usual offering and because what United is offering is premium service, the number of seats on the refurbished 757's shrink by 35% when compared with the standard 767's previously used. Passengers in all three classes will get better meals than served on standard flights (thank God!), and each seat has its own power outlet.

The coach fares on the differentiated flights will be the same as those on United's plain vanilla flights: Out and back coach tickets ordered a week in advance will run \$270. However, at the high end of the curve, a walk-up, first-class fare will cost a premium \$4,400. In the future, these premium service, point-to-point flights will be increased to 13-seven daily round trip flights connecting LAX and JFK, and six joining San Francisco and JFK.

If one believes that in marketing demography is destiny, and if one understands that Americans live in a land with an increasingly skewed income distribution (the haves have more and the have-nots do not), then United's experiment with product differentiation could have great possibilities. It should be realized that the pivot point of the exercise in pricing power is first-rate service to the well-heeled travelers graciously provided by the cabin crew, and United is currently involved in a bad brouhaha with its flight attendants' union over pension-fund cuts. (It also should be understood that such tightly-focused, premium service flights will increase the number of take-offs and landings at LAX.)

In a variation upon US Airways concept of "If you can't lick 'em, join 'em," United has established a wholly owned discount carrier, called "Ted" as a vehicle for competing with the low-cost carriers at the end of the demand curve. Since Ted does not have a low-cost structure, it is hardly effective; however, it can be looked on as a learning device for United's top management. Obviously, they can use all the help they can get.

Delta's choice of a business model has turned out to be a very protracted and heinously expensive exercise. At the same time that Leo Mullin was borrowing money from Wall Street to ease Delta through the turbulent times it was experiencing, he was also having the board of directors approve of bonuses and bankruptcy-proof pensions for the top executives. (Evidently, Mr. Mullin believed that all Delta's employees are equal, but some are more equal than others.) After the remainder of

the employees heard about the goodies that the big brass was getting, Mullin's credibility sank to near zero. Finally, Mullin decided that the time had come for him to leave; however, it took him six months before he finally made it through the front door, and during much of that time the board allowed the line to languish. The board then selected one of their own to try his hands at the controls. Gerald Grinstein, a lawyer who had been a member of Delta's board for over sixteen years, got the nod in January of 2004, and shortly thereafter he ordered that a top-to-bottom analysis of Delta be made so a new business model could be formulated. But this analysis took nine months to accomplish, and the plan that finally came squalling forth with much fanfare was neither fish, flesh, nor fowl. Delta would be neither a hub-to-hub line nor a point-to-point line, but line located somewhere in between. Grinstein dubbed the plan "the Delta Solution," and he said of it: "Our plan is not to simply mimic low-cost carriers, nor is it to continue to struggle for another few years as a traditional legacy carrier." According to Grinstein, the plan will "carve out new and previously uncharted airline territory." Of course, nobody in the industry is quite sure what that all means-if anything. While the plan may not turn out to be so great, it certainly was costly: While the analysis was being performed, Delta was losing about \$5 million a day. Early in Mr. Grinstein tenure as CEO, he uttered the "B" word: Bankruptcy. It was a word that had never rolled off Mr. Mullin's lips.

When the senior members of Delta's pilot corps heard the "B" word, it engendered an epiphany during which they saw with gin-clarity that in bankruptcy not only could their careers crash and burn, but also their pensions could inexplicably disappear. This comprehension did galvanize the pilots into a headlong rush-one similar in many ways to the gold rush in the Klondike-to the Human Resources Office to file early retirement papers. (Delta permitted retiring pilots to take a part of their pension in a lump sum payment. Because the lump that could be worth as much as a million dollars, this game was definitely not Trivial Pursuit.) As the movement gained momentum, some executives realized that Delta was experiencing a lemming-like run because so many graying pilots were opting to push the panic button and hit the silk that the carrier would not have enough captains to fly its lucrative transcontinental and overseas runs. The union agreement precluded the company from hiring retired pilots; however, faced with the possibility of bankruptcy brought about by pilots bailing out via early retirement, the union agreed to allow Delta to hire retired pilots as independent contractors.

During Mullin's tenure, Delta-like United Airlines-established an "airline within an airline" to compete with the discounters. It was named "Song," and there are some - inside and outside of the company - that believe that it should have been called "Swan Song." But, in accordance with the Delta Solution, Song received twelve more planes to add to its fleet of 36 jets in the spring of 2005.

Terry Trippler, an industry expert in Minneapolis asked the following question: "Is Song going to be the new Delta? It is hard to tell. It hasn't worked for anyone else, and Delta hasn't been too successful at anything else they've tried lately." That puts things in proper perspective. Song plans to peddle organic baby food on all the discounter's flights to convince parents to fly with their infants and small children. According to Mr. Trippler, "It's going to take a whole lot more than premium baby food. It's going to have to mean premium prices to turn that airline around."

At least there is no question about what business model that Northwest Airlines will select. It will keep using the hub-to-hub model because of the lock that it has on its hubs in the upper Midwest (mainly Detroit and the Twin Cities) and because it is one of two airlines that are presently permitted to fly into China-which is where the action will be in this decade and beyond.

When it comes to business models, the current chaos in the industry seems to have put the executives at American Airlines into a tail spin: The largest of the legacy lines is acting as if it were a point-to-point discounter in selective markets - behavior that is nothing short of bizarre. For example, faced with the discounters-particularly Jet Blue-eating its lunch in the environs around its Miami hub, American suddenly decided to slash its fares on all its Southern Florida routes by 85 percent. For instance, before the cut America's lowest one-way walkup fare from Miami to LaGuardia was \$616; after the cut America's fare was \$179 (the same as Jet Blue's fare from Ft. Lauderdale to LaGuardia). There are those who believe this approach to be an act of self-immolation. David Strine, an airline industry analyst at Bear Stearns has said: "Every time the majors match the fares of the discounters, they lost money. That situation is clearly unsustainable." However, Scott Nason, the vice president for revenue management at American, maintains that not only is it not economic suicide, it is going to be "slightly revenue positive." If this indeed turns out to be the case, American Airlines will have repealed the laws of airline economics.

After losing the multi-talented Gordon Bethune, Continental Airlines has decided to stick to its hub-to-hub business model for now; however, it intends to focus its resources on the international routes. That would appear to be a wise decision, for that is where the future of air travel is to be found.

THE CHANGING SHAPE OF INTERNATIONAL ROUTES

Hub-to-Hub Versus Point-to-Point Over the Atlantic:

After the deregulation of 1978, many of the legacy lines moved a selection of their big birds-mainly 747's-to the East Coast to be used in the burgeoning traffic over the Atlantic. These airliners would fly from hubs in the U.S. (usually New York) to hubs in Europe (usually London). So if a woman wanted to go from Philadelphia to Amsterdam, she would first have to fly to New York via a small regional airliner. There she would board a lumbering widebody bird and fly to London. She would then change planes and fly with another regional carrier to Amsterdam. The airlines loved this arrangement because it allowed them to fill up their big birds and make a lot of money.

As a result of engine development, Boeing was able to change this scenario by building the 767, the narrowest widebody in service. With two robust engines, it was able to fly on point-to-point runs over the Atlantic. Observed that excellent English newsmagazine, *The Economist*:

This taste for smaller international jets reflects the fact that travelers now like to shun big international hubs such as New York and London and fly directly to their destinations. This is changing the international market into a web of direct intercontinental flights rather than one big aerial bridge between London and New York.

The most common jet found on an Atlantic run is no longer the 747; instead 8 out of ten birds flying between North America and Europe are two-engine planes flying point-to-point.

Hub-to-Hub Versus Point-to-Point Over the Pacific:

After their victory with the 767 flying point-to-point on the Atlantic runs, both the executives and the aerodynamicists at Boeing started ruminating on the following question: Would the increasing traffic over the Pacific go the same way as the routes over the Atlantic? At the onset, they understood that, because of the distances involved between airports, the Pacific had long been the exclusive preserve of the hub-to-hub airlines. For instance, at the turn of the century, in excess of 85% of the passengers that land at Tokyo's Narita airport (one of Asia's great hubs) are not ultimately bound for Japan, but are heading instead for Singapore, Hong Kong or other places in the Orient.

After much analysis, the men and women of Boeing concluded that the Pacific would follow the example of the Atlantic because of advances in engine technology and because of the number of new airports that were being built throughout the Orient. So they set about to produce and market the Boeing 777-the first airliner to be designed specifically for point-to-point runs over the Pacific. Originally, it came in two versions: the 777-200 and the 777-300. Both of these planes experienced singular success-particularly in Asia, where there is usually a long distance between airfields. Japan Airlines, All Nippon Airlines, Thai Airways International, Cathay Pacific, China Southern, Japan Air Systems, Korean Air Lines, Singapore Airlines-all purchased the first two versions of the Triple 7.

As a result of this commercial success, Boeing's engineers set about developing a longer-range versions of the 777. Emblematic of these airliners is the 777-200LR which will have a range of nearly 9,000 nautical miles when it is ready for duty in 2006. It will be able to perform this technological tour de force because of two GE90-110B1 turbofan engines that have been described as "awesomely powerful." Capable of staying aloft for over 18 hours, the Dash 200LR can be used on point-to-point runs such as Sydney, Australia, to either Dallas or Denver. (Anyone who has flown over that sheer expanse of water will be mind-boggled by the fact that any bird can make that trip nonstop.) Another option for the Dash 200LR would be Auckland, New Zealand, to New York. The airplane will carry 305 passengers when configured in three classes. (Because the 777 is in the process of replacing the 747-400, which carries 416 passengers when rigged in three classes, the 777 will increase the number of take-offs and landings at all the world's major airports - and particularly at LAX.)

What is important about the Boeing 777 is that it can handily fly from the U.S. to Mainland China, for that is the locus of future economic growth.

The Economic Decline of the USA

The October, 2004 edition of the IEEE Spectrum-certainly one of the most respected technical journals in the world-has an article that begins with the following paragraph:

If the 19th century belonged to Britain and the 20th century to the United States, the 21st century will surely be East Asia's. Already South Korea, Taiwan, the eastern industrial areas of China, and Japan form an increasingly integrated economic bloc that rivals both Western Europe and the United States. Within decades, the region will become the world's dominant economic force.

While the beginning of an article in the December 6th edition of Business Week is not quite as dispassionate, it draws the same conclusion:

"The China Price." They are the three scariest words in U.S. industry. Cut your price at least 30% or lose your customers. Nearly every manufacturer is vulnerable-from furniture to networking gear. The result: A massive shift in economic power is underway.

Alan Tonelson, a research fellow with the U.S. Business & Industry Council Educational Fund, recently made the following observation:

American technology competitiveness vis-a-vis China has been eroding rather significantly, and the pace of this erosion is going to speed up dramatically because it's the kind of process that feeds on its own momentum. As increasingly sophisticated manufacturing flows into China, the R&D, engineering, and design functions associated with that manufacturing are going to flow to China, too.

In 1996, China had exports of telecommunications equipment worth \$14.1 billion. By the year 2000, the value had jumped to \$26 billion, and by 2002, it had reached \$36.4 billion. (If you are at all into exponential curves, just connect the dots and get your jollies.) In 2002, China was the world's leading exporter of telecom equipment with \$36.4 billion, followed by the U.S. with \$21.6 billion; the United Kingdom with \$17.4 billion; the Republic of Korea with \$15.8 billion; and Germany with \$15.4 billion.

For years, China has been pouring their best and brightest into that nation's engineering schools. As a consequence, in 2001 the Chinese had 219,563 engineering grads; the European Union had 179,929; Japan had 104,478; Russia had 80,409; and the U.S. brought up the rear with only 59,536. And many of China's engineering grads go on to chase terminal degrees. Back in 1985, China managed to turn out only 125 Ph.D.'s in engineering; however, by 2001 its number of doctorates increased to 7,600. (That's what exponential growth is all about!) In the United States, since the mid-1990's the number of doctorate degrees awarded in engineering dropped by 15%.

When intellectual capital is of pivotal importance to the nation's economic competitiveness, why are American students at the tail end in engineering? That's an easy one to answer: Our K-12 kids are woefully deficient in mathematics. A test of 15-year-old students was administered by the Program for International Student Assessment (PISA) in the spring of 2003 and the results were released in December of 2004. Of the 39 countries used in the comparisons, twenty-three countries scored better than the U.S. in mathematics literacy and a full 25 did better in problem solving. While American kids were slightly ahead of their counterparts in Mexico and Turkey, they tested well below the leaders of the pack: Finland, Korea, Canada, Hong Kong-China, and Japan. Concluded the PISA report:

Mathematics plays a central role for the success of individuals and societies so most countries attach a great importance in securing high performance standards in mathematics throughout their education.

Americans don't get it. In 1981, an important report called "A Nation at Risk" observed as follows:

If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war... We have, in effect, been committing an act of unthinking, unilateral educational disarmament.

Exactly twenty years later, another important report, this one called "Road Map for National Security," stated:

The harsh fact is that the U.S. need for the highest quality human capital in science, mathematics and engineering is not being met... Second only to a weapon of mass destruction detonating in an American city, we can think of nothing more dangerous than a failure to manage properly science, technology, and education for the common good over the next century.

Within the realm of engineering, in 1970, 4,631 citizens and 568 foreign nationals were awarded doctorates in the U.S. In 2000, 3,260 U.S. citizens and 2,161 foreign nationals were awarded doctorates. According to a National Science Foundation report, in 2000, immigrants comprised 38% of the employees in science and engineering with doctorates, and immigrants made up 29% of those employees with master's degrees.

If one wanted to pick a time period that could be used in the future to mark the beginning of the irreversible decline in the U.S. economy, certainly the 2003 and 2004 school years would be the leading contender. Dan Mote, the president of the University of Maryland has observed: "It's not hyperbole to say that our country has been built by the international scientists and engineers who have come here in the past 50 years." But during the 2003 and 2004 school years, that great army of foreigners that marched into our graduate schools of engineering each year suddenly began to disappear. The Council of Graduate Schools has published a report titled, "Findings from U.S. Graduate Schools on International Graduate School Admission Trends," that contains the following information for the period between 2003 and 2004:

- The number of applications from abroad to U.S. graduate programs declined by 28%.
- The number of applications from abroad to U.S. graduate engineering programs declined by 36%.
- The number of applications from China to U.S. graduate programs declined by 45%.
- The number of applications from India to U.S. graduate programs declined by 28%.
- The proportion of U.S. institutions reporting a decline in international applications is 88%.

The smart money is betting that the foreign students won't be back.

In 2002, there were 58,262 foreign students enrolled in America's graduate engineering programs (49% of the total) and 61,346 U.S. students. If the U.S. loses its ability to attract students from far away places with strange sounding names, and if the U.S. can't produce homegrown engineers because of our dysfunctional educational system, where will the multi-degreed engineers that our high-tech industries need come from? Considering the fact that 13 other countries rank above the U.S. in the percentage of 24-year-olds with either a math or science degree, it is very difficult to imagine that the U.S. will - over the long haul - sustain its lead in high tech with an indigenous workforce.

American academics - in particular professors from Harvard's B-School - have always reassured us with the shibboleth: If we educate 'em, they will stay. It turns out that this is just one more motto about American society that is no longer operative as a result of the great sea change that is rolling over the globe. A full 25% of all Ph.D.'s awarded by the universities in the U.S. are received by Chinese students. And while many gain experience at American high-tech firms after receiving the sheepskin, no small number now pack up and head back home to participate in the economic development of their country - and make a lot of money in the process. And, of course, Beijing is doing everything in its power to lure them back. And this reverse brain drain is not only a problem for the U.S.; it is also becoming a problem for Taiwan. Notes University of Maryland professor Michael G. Pecht, an expert on the electronics industries of Asia:

There are Taiwanese who worked for Motorola or Intel for 20 years or so and gained experience in the U.S. semiconductor industry, then spent 3 to 5 years at TSMC (Taiwan Semiconductor Manufacturing Co of Hsinchu, the world's largest contract chip maker) and UMC (United Microelectronics Corp. in Taipei, another highly successful contract chip house), and now they're in China.

As a result of the experience that they have garnered in the U.S., Chinese electrical engineers are making progress that boggles the mind. In 1995, U.S. chip makers worked with semiconductors that had feature sizes of .35 micrometers; whereas the best Chinese makers were working at the 3.00 micrometer level. But by 2003, the U.S. companies were working at the .10 level, and the Chinese were hot on their heels at .13 micrometers. In other words, the Chinese had improved their chip-etching sophistication by over an order of magnitude between 1995 and 2003. There is no question that the reverse brain drain from the U.S. to China will go from a trickle to a river to a flood as Beijing continues to pour on the research and development.

Everybody Wants to Fly to China

It should come as a surprise to no one that there is a direct relationship between increases in Gross Domestic Product and growth in air travel: As a country gets more prosperous, its people fly more often for business and pleasure. Considering that it is one of the two legacy lines that currently has permission to fly into China, United Airlines would appear to be making a wise decision when in October of 2004 it announced that by March of 2005 it would increase the number of international flights by 14% and decrease the number of domestic flights by 12%. There is no question that Boeing's 777 will have a leading role to play in the increased international flights. United was the 777's launch customer, and it presently operates 61 Boeing 777-200's-more than any other airline. (As the 777's, that carry about 300 passengers replace the 747's, that carry about 410 passengers, the airports of America - especially LAX - will experience significantly more take-offs and landings.)

While Delta does not have permission to fly into China, it certainly wants to have. As part of Grinstein's Delta Solution, the airline has launched a full-court press to inform the Department of Transportation (DOT) about the positive impact on the economy of the Great State of Georgia that would result from such permission. (Delta is the largest tenant at Atlanta's Hartsfield-Jackson International Airport, and it handles nearly 78 percent of its passengers.) Mr. Grinstein wrote as follows: "Delta is extremely grateful for the outpouring of support for its application so far. The DOT has received more than 12,000 letters, underlining the importance and need for service between the growing China market and Atlanta, our Nation's largest hub." If it receives the requested permission (and entreaties by nearly all the elected officials of Georgia certainly cannot be denied), it will use its Boeing 777 aircraft - it has eight with an additional five on order - which will feature Delta's award-winning BusinessElite service. Mr. Grinstein made no mention of organic baby food being hawked on the run between Atlanta and the Middle Kingdom, but perhaps that was just an oversight.

Airliner Purchases Shift to Asia

With America's airline industry in disarray, it is only natural that the legacy lines would slam the brakes on buying airplanes. So far in 2005, cash-strapped U.S. carriers have accounted for only 5% of the civil jet orders, far down from their 30-40% share in past economic recoveries. Airlines in Asia - particularly those in Japan and China - have taken up the slack.

In April of 2004, when Boeing was starting its sales campaign to market the 787 - a widebody, double-aisle, twin engine bird that was designed specifically to fly point-to-point on routes over the Pacific - All Nippon Airways Co. (known in the U.S. as ANA) became the 787's launch customer when it ordered 50 jets. This was the first time in Boeing's Commercial Airplane Division's history that one of America's legacy airlines was not the Boeing launch customer: A sign of the times.

In December of 2004, Japan Airlines - known in the U.S. as JAL - announced its decision to buy 30 of the mid-size jets with options for another 20 aircraft. Both of these purchases were made with the Chinese Mainland in mind. In February of 2005, Nagoya, Japan's husky industrial city, inaugurated Certrair, a big international airport, and both ANA and JAL will use it to fly their 787's to secondary cities in China.

In January of 2005, the President of Boeing's Commercial Airplanes and China's ambassador to the U.S. signed a preliminary agreement for the sale of 60 787-8's to the six Chinese carriers - China Southern, Air China, China Eastern, Hainan Airlines, Xiamen Airlines, and Shanghai Airlines. All of these airlines will have at least one of the 787-8's to fly during the Summer Olympics in Beijing - which is scheduled to begin on the eighth day of the eighth month of 2008. (In the Chinese culture, the number eight is a symbol of prosperity.)

It has been estimated that China's airlines will purchase about 2,300 passenger planes between 2005 and 2023. It would seem that the probability is very high that Chinese airframe companies will build a fair number of these airliners in the Middle Kingdom. The nine engineers that rule China have formulated an industrial policy that includes assailing their trading partners' long suits. It was not very long ago that Italy's strength was in high fashion apparel. The Chinese went at this segment of the industry with a will; consequently, the high fashion segment in Italy's apparel is now highly fragmented, and Italy has the dubious distinction of being known as the "sick man of Europe," a title held by the English in the 1970's. Germany, which has no domestic source of liquid hydrocarbons, has long earned foreign exchange by making and marketing very sophisticated machine tools. Now the Chinese have targeted Germany's machine tool market, and they are buying German machine tool companies in order to obtain their designs and patents. It seems highly likely that the Chinese will go after America's airframe business, this nation's main source of foreign exchange. In June of 2005, Boeing signed contracts with Chengdu Aircraft Industrial Group, an affiliate of China Aviation Industry Corp. I, and Hafei Aviation Industry Co, an affiliate of China Aviation Industry Corp. II, to build parts for Boeing's fuel-efficient 787. Chengdu will make composite rudders, and Hafei will make metallic parts and assemblies.

International Discount Lines

One of the main reasons that all of the legacy lines are interested in seeking salvation in the long-haul runs of the International market is because it contains routes where the discounters are conspicuous by their absence. But lately a specter of change has been seen flying through the gray Atlantic mists-one that speaks with an Irish brogue. Having been beaten soundly about the head and shoulders with a shillelagh by the likes of Ryanair (Europe's equivalent of Jet Blue), Aer Lingus-Ireland's major carrier-decided the time had come to ditch its 747's, to buy eight Airbus A330-300's (a medium-to-long range airliner capable of carrying 295 in three classes), and to become an international discounter. Using America's Southwest as its paradigm, Aer Lingus has slashed business-class fares by as much as 60%. For example, the price of an unrestricted ticket in business class from LAX to Dublin has plummeted from \$3,695 each way to \$1,504. According to Aer Lingus's executive, Jack Foley, the airline "realized what's happening here (in the USA) and the intraEuropean market will eventually migrate to the Atlantic. We wanted to position ourselves to recognize that migration."

There is no question that legacy lines and discount lines will eventually be crossing both the Atlantic and the Pacific. And the airliner that most will be using is the Boeing 787 because it is so very miserly with its jet fuel supply.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based upon a review of the data presented above:

1. As the competition between the remainder of the legacy lines and the discounters becomes increasingly cutthroat, air fares will continue to fall. Because the demand for air travel - particularly air travel in the tourist class - has a significant amount of responsiveness to price changes (a high degree of elasticity), an increasing number of passengers will be going to LAX. Airlines will quickly respond to this influx by moving "equipment" into this market. These planes will further clog already congested taxiways and runways; as a consequence, more planes will spend a greater amount of time idling jet engines burning and turning slowly without transmitting power) in a queue, waiting to take-off. The result will be a great miasma of imperfectly burned distillate that will flow into the cities that are contiguous to the airport: El Segundo, Westchester, Inglewood, Hawthorne, Manhattan Beach, etc. This pervasive cloud of pollution will significantly increase the incidence of lung and throat cancer, emphysema, and chronic bronchitis among the residents of those communities.
2. Because profitability in the airline industry is to be found in the high end of the demand curve - in the business class and first class cabins - the remaining legacy lines will shift their focus to premium services. This catering to the carriage trade will result in the use of smaller planes that have been uniquely outfitted (such as those used in United's experiment with Boeing 757's on the Los Angeles and San Francisco to New York runs.) This shift from larger to smaller airliners will result in more idling airliners further clogging taxiways and runways, and producing more clouds of pollution that poison people in the surrounding communities.

3. As Delta Air Lines moves under the aegis of Chapter 11 of the Bankruptcy Code (where Northwest will probably soon be found), it will continue sloughing off its older and larger aircraft and substituting newer and smaller aircraft. A highly regarded industry analyst has estimated that Delta - a major player at LAX - will reduce its capacity by 15% from current levels, which is about the same as United and US Airways reduced their fleets when they sought the protection of the bankruptcy code. This reduction in capacity of large, double-aisle, widebody birds by a legacy liner will be replaced by small, single-aisle birds owned by the discounters. The short-term result will be more airplanes idling at LAX and spewing pollution into the air as they sit and wait in the queue to take off. The long-term result will be sickness and deaths in the communities surrounding the airport.

4. As a result of its coming merger with the discounter, America West, US Airways will "de-emphasize" its hub in Philadelphia and shift its attention to growing markets in the West. In making this move, it will use small, single-aisle airplanes pushed forward with robust engines. The result will be even more planes flying in and out of LAX and bombarding the surrounding communities with pollution.

5. As China continues to emerge as the world's economic powerhouse, business people will flock to the few airports that function as the gateways to the Orient, all wanting to fly to the Middle Kingdom to "get a piece of the action." Because of the long distances involved in flights to Asia and because of the high cost of jet fuel (as the demand side of the equation increases and the supply side of it decreases), travelers over the Pacific's long, thin lines will fly on the most fuel efficient point-to-point planes that the CEO's of the airlines can get their hands on. In the near term, this means a massive replacement of 747-400's with 777-ER's, and in the long-term, an even more massive replacement of 767-ER's and 777-ER's with 787's. It is also important to understand that the emergence of China as the force to be reckoned with is a change in economics that is analogous to a tectonic plate shift in geology. Because the CEO's of the airlines in Japan and China probably have a better understanding of the long-term ramifications of this historic rearrangement than do their counterparts in U.S. airlines, they have been loading up on 787's to be ready for the explosion in air travel that most surely will come. However, U.S. companies - both legacy and discount lines - will eventually comprehend what the future has in store, and they will make the requisite commitment to purchase 787's. (Northwest was about to make just such a commitment when it became apparent that it very likely could end up in Chapter 11.) The result will be great swarms of relatively small, double-aisle planes flying in and out of LAX. And they will spend much time idling in a jammed-up airport whose runways resemble the I-405 at 5:00 p.m. And this myriad of planes will produce a great brown cloud of pollution that will waft toward the cities of the South Bay and choke the people who dwell therein.

Response: Comment noted. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00015 Fucci, John T. Kilroy Realty Corporation 9/15/2005

SAIP-PC00015 - 1

Comment: Kilroy Realty Corporation is a real estate investment trust, active in the commercial office and industrial property markets of Southern California.

Near LAX Airport, Kilroy Realty Corporation owns and manages approximately 1.3 million square feet of office and industrial properties, including

- 999 North Sepulveda Boulevard, at Imperial Highway and Sepulveda (across the street from LAX), in El Segundo
- 2240, 2250, 2260 and 2270 East Imperial Highway (Kilroy Airport Center – also across from LAWA-owned LAX property), in El Segundo
- 2031 East Mariposa Avenue, near Nash, in El Segundo
- 181, 185 South Douglas, in El Segundo
- 2260 East El Segundo Boulevard, in El Segundo
- 2265 East El Segundo Boulevard, in El Segundo

As an immediate neighbor to LAX, and to the South Airfield, we have reviewed the South Airfield Improvement Project EIR and offer the comments below.

Response: The comment is noted. Please see Responses to Comments below.

SAIP-PC00015 - 2

Comment: With regard to the EIR's analysis of Runway 7R/25L being relocated 55.42 feet to the south of its current location, the relocation of corresponding utilities, lighting, signage, grading and drainage, and development of a new center taxiway, please note the following:

1. The Notice of Completion (NOP) related to the EIR states: "The purpose of these improvements is to enhance the safety of operations at the Airport by reducing the potential for runway incursions." NOP, Page 1

2. While there is occasional mention in the EIR of "New Large Aircraft" (NLA) such as the Airbus A380, there is very limited acknowledgement in the EIR that the runway alternative (to move Runway 7R/25L fifty-five (55) feet to the south) will help to accommodate the newer, larger airplanes such as the Airbus A380. Here is one of the only references in the EIR: "...considering a number of runway alternatives that would both enhance the safety and efficiency of the south airfield and provide the ability to accommodate New Large Aircraft (NLA)". SAIP EIR, Introduction, Page 1-4

3. Instead, the EIR and its analysis focuses on runway incursions and safety as the primary basis for needing to relocate runway 7R/25L 55 to the south and to construct a new parallel taxiway between Runways 7R/25L and 7L-25R. "...a primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions." SAIP EIR, Project Description, Page II-2

"The primary objective of the new center taxiway is the minimization of the potential for runway incursions." SAIP EIR, Project Description, Page II-10

4. The EIR implies that the South Airfield at LAX is unsafe: "For the four-year period from 2000 through 2003, LAX experienced the highest number of runway incursions of any U.S. commercial airport." SAIP, Project Description, Page II-2

5. However, the EIR acknowledges the following with regard to safety considerations: "LAX operates in a safe and efficient manner and will continue to do so during and after the proposed modifications to the south airfield." SAIP EIR, Project Description, Page II-21

6. Further, while LAX may have the highest number of incursions mathematically, it is one of the largest airports in the world: "Los Angeles International Airport (LAX) is the world's fifth busiest passenger airport..." LAWA's website, www.lawa.org, General Description, Page 1

7. From a review of a report called "FAA Runway Safety Report, Runway Incursions Trends and Initiatives at Towered Airports in the United States, FY2000-FY2003, August 2004", which report is referenced in the EIR, the report includes both the total number of runway incursions, as well as the annual rate of runway incursions per 100,000 operations at each airport studied.

What the EIR fails to point out is that per the FAA Runway Safety Report, there are other major airports studied which had higher rates of runway incursions than LAX during some of the same study years:

Runway Incursion Rates per 100,000 operations at each Airport
[Please see original letter for table.]
FAA Runway Safety Report, FY2000-FY2003,
August 2004, Pages 78, 80, 82, 98, 102

8. Further, the FAA Runway Safety Report referenced in the EIR shows that safety is actually improving at LAX, and that all the runway incursions did not take place on the South Airfield: "Since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions."
FAA Runway Safety Report, August 2004, Page 37

"LAX has reported zero Category A runway incursions for the past three fiscal years."
FAA Runway Safety Report, August 2004, Page 37

From FY 2000 through FY 2003, the number of Category B runway incursions at LAX has decreased from four events to zero events."
FAA Runway Safety Report, August 2004, Page 37

[Figure 17 in the report graphically reflects that not all the runway incursions at LAX occurred on the South Airfield.]
FAA Runway Safety Report, August 2004, Page 37

9. The FAA Runway Safety Report compliments LAX/LAWA in terms of how LAX has reduced the incursions by management's efforts which implemented better pilot education, physical improvements, and procedural improvements in the LAX control tower: "This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors."
FAA Runway Safety Report, August 2004, Page 37

10. It would seem that if LAX has been improving safety and reducing the rate of incursions, then why is such a draconian measure being planned which would move the south runway 55+ feet closer to the populace of the City of El Segundo?

If the real purpose of the SAIP is to "enhance the safety of operations at the Airport by reducing the potential for runway incursions" as the Notice of Completion states, and if LAX has been making progress in decreasing incursions as the FAA has stated in their report, then why is it necessary to move the southernmost runway closer to an existing populace?

Wouldn't it make more sense to increase runway safety management efforts by LAX and make enhancements to control tower procedures, to further reduce incursions, rather than moving the runway?

11. Based on the above, could it be that LAWA's real and primary purpose for relocating Runway 7R/25L a total of 55.42 feet to the south and developing a new center taxiway is to accommodate the new large aircraft (NLA) such as the Airbus A380?

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. The primary purpose of the SAIP is to enhance the safety and efficiency of the airport. The airport can accommodate the A380 without the construction of the SAIP. The goal of FAA and therefore of LAWA in the planning of the SAIP is to reduce the occurrence of runway incursions to zero. Although not all of the runway incursions at the airport occur on the south airfield, the most frequent cause of runway incursions occurs by when an aircraft arriving on Runway 25L exits at one of the high-speed exits, and then fails to stop before overshooting the hold-bars for Runway 25R due to human error. (Los Angeles International Airport, Runway Incursion Studies, Phase III – Center Taxiway Simulation (page 16), July 31, 2003. NASA Future Flight Central, Ames research Center.) The SAIP would provide the facilities to reduce the potential for this human error to result in a runway incursion.

SAIP-PC00015 - 3

Comment: 12. If accommodating the Airbus A380 and similar aircraft is the primary purpose or another purpose behind moving Runway 7R/25L 55+ feet to the south, then where in the EIR is a discussion of the environmental impacts the larger aircraft will have?

Neither the previous LAX Master Plan EIR nor the SAIP EIR has thoroughly evaluated the environmental impacts of having the new large aircraft operate near Imperial Highway and the

populace of the City of El Segundo. If the primary reason for the South Airfield Improvement Project is to accommodate the new large aircraft, then such an environmental analysis of NLA and corresponding impacts should be done.

While we have heard that the new generation of larger aircraft will be environmentally superior to present-day aircraft, that evaluation should be part of the subject EIR.

Until this environmental impact analysis is completed to supplement the SAIP EIR, and the public given a chance to review, we urge that the SAIP EIR not be certified.

Response: The SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. As discussed in Chapter Two of this Final EIR, the south airfield has experienced a high number of runway incursions. Runway incursions represent a serious threat to aviation safety. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00015 - 4

Comment: 13. With the South Airfield being moved over 55 closer to Imperial Highway and to the City of El Segundo's border, there was no discussion in the EIR of mitigation measures to help buffer the increased LAWA operations on the South Airfield from El Segundo's border. This is a land use impact that should be addressed in the EIR and its mitigation measures.

We request that LAWA propose and implement mitigation measures to aesthetically buffer Imperial Highway, with screening, landscaping and irrigation improvements along the southern border of LAX, median landscaping and irrigation improvements along the entirety of Imperial Highway where Imperial Highway parallels the South Airfield. Such mitigation measures should be incorporated into the SAIP EIR before it is certified.

Response: Aesthetic impacts resulting from the operation of the south airfield were addressed in Section 4.21.6.5 of the LAX Master Plan Final EIR. As stated therein, implementation of Master Plan Commitments DA-1, Provide and Maintain Airport Buffer Areas and DA-3, Undergrounding of Utility Lines, would ensure visual quality by maintaining appropriate landscape buffers and undergrounding utility lines, where feasible. In addition, Section 5.8.4.1 of the SAIP Draft EIR addresses visual impacts from SAIP construction activities that could occur at the southern border of LAX along Imperial Highway. As described therein, construction fencing would be provided along the southern airport boundary under Mitigation Measure MM-DA-1, and, under LAX Master Plan Commitment DA-1, landscaping would be provided along the southern airport boundary as implementation of the Master Plan proceeds. These components of the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) are incorporated into the SAIP Draft EIR. Please also refer to Topical Response TR-SAIP-GEN-3 regarding LAX Master Plan and SAIP mitigation measures.

SAIP-PC00016 Waters, Maxine U.S. House of Representatives, 35th 9/15/2005
Congressional District

SAIP-PC00016 - 1

Comment: This constitutes comments to the draft environmental impact report (EIR) for the South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). On or about August 1, 2005, Los Angeles World Airports (LAWA) prepared a project-level tiered Draft EIR pursuant to the California Environmental Quality Act (CEQA). The proposed project consists of the southerly relocation of Runway 7R/25L 55.4 feet and the construction of a center parallel taxiway. The stated purpose of these improvements is to enhance the safety of airfield operations by reducing the occurrence of runway incursions. The Draft EIR provides additional information on the construction of the SAIP, but virtually none on its post-construction impacts.

General Comments

The Draft EIR fails to analyze the operational impacts of the SAIP. This materiel omission renders the document useless as a tool for evaluating the long-range environmental impacts from the south airfield.

For nearly all of the disciplines, the DEIR analyzes impacts only during the temporary construction phase of the SAIP. The DEIR's failure to analyze long-term or post-construction environmental impacts means that no analysis exists of the SAIP's long-term or post-construction impacts.

The DEIR asserts that "the potential operations-related effects on other environmental resources were adequately addressed in the LAX Master Plan and no further analysis is required regarding those resources in this document." (DEIR, p. I-4.) I respectfully disagree. By and large, the Master Plan EIR does not analyze the long term impacts associated with the SAIP itself. Instead, the Master Plan EIR, being a programmatic level document, assesses post- construction impacts of the entire Master Plan. Thus, post- construction on-airport surface transportation impacts from Alternative D were analyzed, but they were not analyzed for this project. (See FEIR, p. 4-396.) Thus, off-airport surface transportation impacts from Alternative D were analyzed; but they were not analyzed for this project. (See FEIR, p. 4-447.) The same is true of noise, air quality, water quality, biotic communities, and human health. (See FEIR, pp. 4-717, 4-786; 4-905, 4-1371, 1402.)

The fallacy of ignoring long-range impacts that derive solely from the SAIP is that it assumes that the whole Master Plan program will be built. But indications are to the contrary. Over the past 18 months, very public indications of a shrunken Master Plan have come from various quarters, including: the new mayor who ran on a platform opposed to Alternative D; the election of a new City Councilman representing the airport who opposes Alternative D; the appointment of a new Board of Airport Commissioners, including the appointment to that board of the former president of the grassroots organization that sued the City over the Master Plan; discussions by City Councilmembers in open chambers during the approval of the Master Plan to the effect that their votes were not intended to approve the Ground Transportation Center and other controversial elements of the Master Plan; and the creation by the former Councilwoman for the 11th District of a specific plan that segregated the Master Plan projects and assigned heightened scrutiny to many projects. Hence, the SAIP should be viewed and analyzed as a stand-alone project.

This document does not fulfill LAWA's responsibility to analyze the full and true impacts of the SAIP. It is reasonable to assume that a program smaller than and different from Alt D Master Plan will be implemented by the sponsor. The environmental documentation is devoid of smaller Master Plan construction scenarios. One scenario is the SAIP in isolation. Another reasonable scenario is the SAIP in conjunction with the build-out of the "green-light" projects without the yellow-light projects.

Because of the probability of a Master Plan build-out program leaner than that analyzed in the Master Plan EIR, the DEIR should not rely on a tiered analysis.

Response: Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. In regard to long-term operational impacts, there have been no changes in the assumptions regarding aircraft operations, fleet mix, runway use, or other post-construction operational characteristics from those presented in the LAX Master Plan Final EIR. Therefore, no additional analysis of the related long-term operational impacts was required for this Final EIR. The SAIP Draft EIR includes an analysis of long-term hydrology and water quality impacts, based on detailed engineering developed for the SAIP and not because of any change in operational characteristics compared to the LAX Master Plan Final EIR. Additionally, the Los Angeles City Council approved Alternative D in its entirety. To state that any portion of the LAX Master Plan would not be implemented is speculative and therefore should not be considered for evaluation of the potential environmental effects of the SAIP. Please also see Response to Comment SAIP-AL00005-35.

SAIP-PC00016 - 2

Comment: Document not User Friendly

The document is difficult to read. It relies excessively on acronyms. It is replete with technical jargon that goes unexplained.

Response: The content of this comment is similar to comment SAIP-PC00006-1; please refer to Response to Comment SAIP-PC00006-1.

SAIP-PC00016 - 3

Comment: It takes a great number of references to other documents, without summarizing that relevant portion of the document. It often references other materials, including the Master Plan EIR, without pinpointing the page and paragraph where the information can be found.

Response: Comment noted. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. LAWA has made a good faith effort to make the SAIP Draft EIR accessible, readable and understandable, without defeating the purpose of the tiering statute by repeating every referenced section of the LAX Master Plan EIR.

SAIP-PC00016 - 4

Comment: Important predicate information, such as the nature and severity of LAX runway incursions, is omitted.

Response: Between 2000 and 2003, LAX experienced the largest number of runway incursions of any U.S. airport. The vast majority of these incursions occurred in the south airfield. In connection with the FAA's Runway Safety Program, LAWA reviewed and evaluated several options to minimize runway incursions as part of the LAX Master Plan. LAWA determined that new parallel center taxiways offered the best physical solution to reduce the risk of runway incursions. Specifically, relocating Runway 7R-25L and constructing a new center taxiway between the two south airfield runways will minimize the potential for runway incursions, which could result in serious aircraft accident. Please see Chapter 2 of this final EIR for a discussion of the runway incursion problem.

Since June 1, 2005, seven runway incursions have occurred at LAX, with six of these occurring on the south airfield. Details of each of these runway incursions are presented below:

05/23/05 (Incursion #1)

A turboprop was instructed to "position and hold" on Runway 7L-25R. The pilot correctly read back the clearance. On the next transmission, the controller cleared a B757 to cross Runway 7L-25R at Taxiway November. The controller then observed the turboprop approaching rotation at Taxiway Golf without a takeoff clearance with the B757 in the middle of Runway 7L-25R. This was a Level D Runway Incursion.

06/19/05 (Incursion #2)

A Regional jet landed on Runway 7R-25L, exited at Taxiway Kilo, and was instructed to "hold short of Runway 7L-25R." The pilot correctly read back the instruction. The controller cleared a second regional jet for takeoff on Runway 7L-25R. The controller then observed the first regional jet cross the Runway 7L-25R hold bar and stop prior to the runway edge line, so he cancelled the takeoff clearance of the second regional jet, which aborted takeoff. This was a Level C Runway Incursion.

06/21/05 (Incursion #3)

A B737 landed on Runway 7R-25L and exited at Taxiway Kilo. The pilot was instructed to hold short of Runway 7L-25R. The pilot correctly read back the instruction. A MD80 was on takeoff roll on Runway 7L-25R when the pilot of the B737 advised he was "slightly" beyond the hold short bars. The B737 pilot was advised of departing traffic, and the MD80 continued its departure. This was a Level D Runway Incursion.

06/22/05 (Incursion #4)

A B737 landed on Runway 6L-24R and was cleared to cross Runway 6R-24L. The pilot then heard a go-around and observed landing lights at the departure end of Runway 6R-24L, so he stopped to confirm his crossing instructions. His initial call received no response and after the second call he was told to standby. The controller then cleared a B737 for takeoff on Runway 6R-24L. After a third call for verification on crossing instructions, the controller replied, "Negative, hold short of Runway 6R-24L." The pilot advised he was already stopped beyond the hold bars. The departing B737 continued its departure. This was a Level D Runway Incursion.

7/1/05 (Incursion #5)

A regional jet landed on Runway 7R-25L and exited at Taxiway Kilo. A turboprop was departing Runway 7L-25R when the controller observed the regional jet pass the hold bar and stop at the edge line of Runway 7L-25R. The turboprop aborted takeoff after the clearance was cancelled. This was a Level D Runway Incursion.

07/28/05 (Incursion #6)

A Cessna turboprop aircraft was instructed to hold short of Runway 7L-25R at Taxiway Golf. A B757 was then cleared for takeoff on Runway 7L-25R. The B757 pilot questioned the takeoff clearance when he observed the Cessna crossing the runway in front of him. The controller observed the Cessna clearing the runway, so he again cleared the B757 for takeoff. This was a Level D Runway Incursion.

In light of these recent incursions and the threat of future incursions, the SAIP improvements are necessary to prevent runway incursions at LAX in the future.

Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00016 - 5

Comment: Alternatives not Considered

Not all reasonable alternatives to the SAIP were considered. For example, fully staffing the LAX control tower did not appear to be considered in either the Master Plan EIR or the SAIP Draft EIR. Relocating the hold bars farther away from 25R did not appear to be considered. These alternatives should be fully analyzed in the Draft EIR.

Response:

Please refer to Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR. Please also see TR-SAIP-PD-1 regarding the purpose and need of the SAIP. In regard to relocation of the hold-bars on Runway 7R/25R, one of the key factors contributing to runway incursion incidents in the south airfield of LAX is the fact that the area designated for aircraft holding between the two runways is limited. Because of the limited space, pilots can misjudge their position and inadvertently cross the hold bars. Reducing the space between the two hold positions by moving the northern hold position could severely impact the capacity of the airfield and further degrade the safety of operations. The reduction of the space to hold aircraft would force controllers to hold departures of Runway 25R and clear pilots across the departure runway making these two runways dependent to each other. Additionally, the movement of the holding positions to the south will move them closer to the arrival runway, at a point where the aircraft is still traveling at higher speeds. Please refer to Response to Comment SAIP-AL00005-61 and Response to Comment SAIP-PC00015-2 for further detail regarding relocation of the hold bars. Please also refer to Response to Comment SAIP-AL00005-7 regarding human error and the reduction of runway incursions.

SAIP-PC00016 - 6

Comment: SAIP and Incursions

"A primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions." (DEIR, p. II-2) A runway incursion is defined broadly and relates to collision hazards or loss of required aircraft separation. Numerous situations may create a runway incursion. The SAIP's proposed center taxiway appears to address one specific type of incursion, i.e., where

an aircraft taxis beyond a runway hold bar. Of the runway incursions at LAX between 2000 and 2003, please describe those in which an aircraft taxied beyond the runway hold bar.

Response: For a detailed accounting of runway incursions at LAX between 2000 and 2003 please see the FAA Runway Safety Report - Runway Incursion Trends and Initiatives at Towered Airports in the United States, FY 2000 – FY 2003. This report, published by FAA, is available at www.faa.gov.

On page 39 of this report the following is stated: The FAA has worked with individual airports to address the risks of collisions on runways for commercial aircraft operators. Los Angeles International Airport (LAX), located in the FAA Western Pacific Region, is ranked fourth in the total number of operations from FY 2000 through FY 2003, with commercial operations accounting for 97 percent of the total operations. For the four-year period, LAX led the nation in the total number of runway incursions (34 events), number of COMM/COMM runway incursions (30 events), and the overall number of Category A and B runway incursions (11 events). At LAX, ten of these Category A and B incursions involved two commercial aircraft and almost half involved an aircraft that failed to hold short of runway 25R after landing on runway 25L. These closely spaced parallel runways handle high numbers of takeoffs and landings. Upon exiting the runway, the pilot has only a short distance to stop the aircraft before coming to the other parallel runway.

FAA maintains detailed records of each incident.

SAIP-PC00016 - 7

Comment: The FAA categorized runway incursions based on their severity. How serious were the incursions reported at LAX between 2000 and 2003? Into what categories did the incursions fall?

Response: Please see Response to Comment SAIP-PC00016-6 above.

SAIP-PC00016 - 8

Comment: How, if at all, would the SAIP eliminate or reduce either types of runway incursion (such as operational error, or vehicle/pedestrian deviations)? Last year, an alarming near collision took place in which a 747 prepared to land onto the same runway in which a 737 was preparing to take-off. How would the SAIP eliminate this kind of incursion?

Response: The SAIP is one part of a multifaceted approach to reducing runway incursions at LAX. The efforts LAWA has already implemented to help reduce both the frequency and severity of runway incursions at the airport are detailed, in part, in the report FAA Runway Safety Report - Runway Incursion Trends and Initiatives at Towered Airports in the United States, FY 2000 – FY 2003. This report, published by FAA, is available at www.faa.gov.

On page 39 of the report the following is stated: Since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions. This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors.

The SAIP, along with the outreach and education programs noted above would work in concert to continue to reduce both the frequency and severity of runway incursions at LAX.

SAIP-PC00016 - 9

Comment: The SAIP project description appears to depict taxiways placed diagonally from runway 25L that intersect the center taxiway and extend in an uninterrupted manner through runway 25R to the south terminals. (See Exhibit 2-1.) (Other taxiways appear to require a directional course change at the center taxiway.) In other words, it appears that unbroken high speed taxiways remain in the SAIP airfield design of precisely the kind that currently give rise to runway hold bars incursions. Please describe the physical and operational characteristics of the new center taxiway that will prevent aircraft from taxiing beyond the hold bars. Please explain why the new SAIP was designed

with some taxiways in the middle third of the runway complex that do not require the pilot to turn left onto the center parallel taxiway.

Response: After completion of the SAIP, aircraft arriving Runway 25L would receive instruction to exit the runway and turn onto the new center parallel taxiway before crossing the inboard runway. The exception to this scenario would be operations during low activity at the airport when the inboard runway may not be in use. During these low activity periods, aircraft may be directed to exit the outboard runway and continue across the inboard runway at this particular location. However, only a single connection will continue to exist between the two runways and this single taxiway will now be bisected by the proposed center parallel taxiway. Most arriving flights would be instructed to turn onto the new center parallel taxiway and hold prior to receiving clearance to cross the inboard runway.

SAIP-PC00016 - 10

Comment: SAIP and Regional Solution

How will the SAIP encourage other regional airports to assume a greater share of passenger and cargo aviation demand? How will the SAIP encourage airlines to distribute aviation service from LAX to regional airports? How does this SAIP "distribut[e] commercial service not essential to the LAX international gateway role to other airports in the region"? (See DEIR, p. II-1.)

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00016 - 11

Comment: Hydrology

A hydrology mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works to upgrade regional drainage facilities to accommodate current and future flows within the Dominguez Channel and other watersheds. (MM-HWQ-1, DEIR, p. IV-22) The actions of these bodies lie outside the jurisdiction and control of LAWA. LAWA should secure a binding agreement with Los Angeles County and/or the Department of Public Works prior to significantly impacting the Dominguez Channel Watershed.

Response: As noted by the commentor, the proposed hydrology mitigation measure requires action by the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works and is outside the jurisdiction and control of LAWA. Nevertheless, LAWA intends to work with these agencies on developing a solution to this cumulative impact and will pursue entering an agreement with the agencies to participate in a fair share manner to such a solution. Please also see Response to Comment SAIP-AL00005-44 regarding Mitigation Measure MM-HWQ-1 and Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures.

SAIP-PC00016 - 12

Comment: Air Quality and Human Health

The impact assessment is speculative because it assumes an unrealized air quality plan, the Mitigation Plan for Air Quality (MPAQ). Since the MPAQ is not yet in existence, it is impossible to determine whether the MPAQ will meet its goals. The MPAQ should be complete before a meaningful assessment of emissions and health impacts can be made.

Response: The content of this comment is essentially the same as comment SAIP-AL00005-38; please refer to Response to Comment SAIP-AL00005-38.

SAIP-PC00016 - 13

Comment: It appears that scientific study of hazardous air pollutants from jet emissions and commercial airports is relatively scarce. I encourage the gathering of information on the air quality impacts of LAX and commercial airports through future surveys. Please, provide a concise summary of previous studies of LAX emissions.

Response: The recent, relevant monitoring studies of air contaminants at LAX have been conducted by the South Coast Air Quality Management District (SCAQMD). A summary of the findings for each of these studies is presented below.

"Air Monitoring Study at Los Angeles International Airport," dated November 1998:

During three weekends in May and June 1998, the South Coast Air Quality Management District (AQMD) performed carbon monoxide (CO), particulate matter (PM), and volatile organic compound (VOC) sampling at LAX. Sampling was conducted at two curbside locations: Bradley Terminal (Site 1) and Terminal 7 (Site 2) to determine the nature and levels of gases generated by motor vehicle and avionics activities. The AQMD conducted this study to address concerns about the pollutant levels to which LAX staff may be exposed.

The measured CO concentrations were below the state and federal 8-hour and 1-hour allowable maximum exposure limits during all three sampling weekends. Heavy airport vehicular traffic would suggest elevated CO levels, however fresh sea air seemed to have a strong dilution effect during this period, which is a common occurrence this time of the year. More stagnant conditions typically occur in the fall and winter months. Although PM10 24-hour measurement levels at LAX exceeded the South Coast Air Basin (Basin) averages on most sampling days, these levels were still below federal ambient PM10 standards for 24 hours. The 24-hour Tedlar Bag samples for CO₂, CH₄, and total nonmethane hydrocarbons (TNMOC) were not unusual as compared to other air monitoring locations.

"Air Monitoring Study in the Area of Los Angeles International Airport – Part I," dated April 2000:

During 1999, the AQMD performed sampling of ambient PM and VOC levels in the vicinity of LAX. Sampling was initially conducted at 11 residential and 3 "fixed" locations to determine whether operations at LAX are impacting the air quality of communities near the airport. The AQMD conducted this study to address public concerns about air pollutants which may be attributed to LAX operations.

The initial study was conducted from June 2, 1999 through July 9, 1999. As a result of the data analysis from that period, an additional sampling program (follow-up "study") was performed on September 10, 14, and 16, 1999.

Due to the limited number of samples taken, risk assessments of toxic air contaminants are not appropriate because an estimate of true exposures requires, at minimum, a year-long study. It should also be noted that definitive conclusions regarding the exact sources of pollutants are difficult to determine due to limitations in current analytical technologies. However, even from this limited data set certain indications clearly exist.

The principal findings of this study are as follows:

- The key toxic contaminants detected are benzene, butadiene, and elemental carbon. (The latter is used as a surrogate for diesel particulates.)
- All key compounds are associated with mobile sources.
- All key compounds are lower at residential sites than at Aviation and Felton School sites, which are influenced by emissions from major arterials (Aviation Blvd. and 405 Freeway).
- Compared to the MATES-II Study, key compounds at residences north and south of the airport tend to be lower than the MATES-II monitoring network averages, while residences east of the airport tend to be near the network average.
- Fallout samples depict greater abundance of larger-than-PM10-sized combusted oil soot particles than is observed at most other locations in the South Coast Air Basin.
- Limited sampling provides indicators of conditions. Longer term sampling is needed for more complete risk assessments.

"Air Monitoring Study in the Area of Los Angeles International Airport – Part II – Air Monitoring Study at Los Angeles International Airport Terminals," dated April 2000:

This study was a follow-up to the May/June 1998 monitoring study at 2 locations on the upper level (see November 1998 report above). During November 1999, the AQMD performed sampling at lower level terminals at LAX in the passenger loading and unloading areas. This sampling occurred one week prior to and during the Thanksgiving Day week, November 1999. This period was chosen for two reasons: (1) Thanksgiving weekend is one of the busiest of the year; and (2) weather conditions in late November typically lead to stagnant air and higher pollutant levels. The pollutants sampled included benzene, 1,3-butadiene, CO, and elemental carbon (EC). The first three pollutants are associated with mobile emissions, and EC is used as a surrogate for estimating diesel particulate emissions.

This study looked at the previous upper level locations in addition to 5 sites at lower level terminals. The specific sites for this study were the lower level terminals 1, 3, 6, 7, and the Bradley upper (same as the May/June study) and lower terminals.

The initial study was conducted in May and June of 1998 at two upper level curbside locations: Bradley Terminal and Terminal 7. The purpose of the initial study (and this study) was to determine the concentrations of pollutant generated by motor vehicle and avionics activities. This was to address concerns about the pollutant levels to which LAX staff and the public may be exposed. The pollutants measured during the first study were not out of the normal range for the Basin. It was concluded that the fresh sea breezes prevalent during that time of the year and the siting of the samplers on the open, upper level might have diluted concentrations of CO and VOCs. This study was conducted during the fall/winter month of November when the sea breezes are less prevalent and when the airport is at its peak travel season of Thanksgiving Day weekend. Also, the samplers were sited to include the covered lower level where pollutants could be trapped by slow air exchange.

The principal findings of this study are as follows:

- Higher concentrations of monitored pollutants were observed at Terminals 6 and 7; lower at the Bradley Terminal.
- Higher concentrations of monitored pollutants were observed on Thanksgiving weekend compared to the prior week.
- Benzene and 1,3-butadiene levels at Terminals 6 and 7 were about twice the levels observed during the November (1998) MATES II sampling and the Hawthorne fall microscale sampling. Pollutant levels at the Bradley Terminal were lower than the levels observed during the November MATES II sampling and the Hawthorne fall microscale sampling.
- At Terminals 1 and 3, levels of benzene and 1,3-butadiene were slightly lower, during the first week, and slightly higher during the Thanksgiving week, as compared to the MATES II November (1998) average.
- Elemental carbon at all terminal sites were higher than the MATES II average. Compared to the Harbor area measurements (of which the 1999 study collected samples during the same two-week period as the LAX study), levels at LAX were slightly higher during the first week, but substantially higher during Thanksgiving week. (Note: There is a higher uncertainty with the portable particulate matter samplers used in this study.)
- Carbon monoxide measurements, showing maximum 8-hour levels, were slightly higher at LAX as

compared to the Hawthorne air monitoring site. Results from continuous portable monitors are subject to significant uncertainty, but suggest that federal standard levels for CO may have been exceeded at Terminal 7. Eight-hour integrated canister samples did not show any exceedance of the CO standard.

-Based on meteorological conditions and high traffic volumes, the measurements taken during the Thanksgiving weekend period likely represent a near-worst-case scenario at the LAX Terminals.

"Inglewood Particulate Fallout Study Under and Near the Flight Path to Los Angeles International Airport," dated September 2000:

During the weeks of April 28 and May 30, 2000, the AQMD conducted fallout sampling within the greater Inglewood area under and near the flight path to LAX. Sampling was conducted at 14 locations per sampling period, primarily at residences, utilizing glass plates and quartz fiber filters at each site to characterize the deposition. Glass plates were paired with glass fiber filters at each location. Different sampling locations were used with each sampling period, but were coordinated so that a sampling grid was established under and near the flight path. The study was conducted as a follow-up to earlier studies the AQMD has conducted in and near LAX, and to address public concerns about air pollution which may be attributed to aircraft.

The principal findings of the study are as follows:

-The most significant finding of the study conducted in the summer of 1999 is that the toxic contaminants detected are benzene, butadiene, and elemental carbon. (The latter is used as a surrogate for diesel particulates.) These compounds are lower at residential sites than at sites which are influenced by emissions from major arterials (Aviation Blvd. and the 405 Freeway).

-The focus on fallout in this study is a result of an earlier study which found abundant combusted oil soot particulates around LAX.

-Combusted oil soot particles were not present in abundance in the majority of samples collected during this study, but no conclusions can be drawn from this finding due to the limited sampling period.

-The composition of the fallout is consistent with that typically found in other areas of the Basin.

-There is no discernible pattern of either carbon mass or total fallout mass under LAX's flight path which would indicate a predominant influence from aircraft fallout. Current monitoring techniques cannot determine when small impacts from sources may be occurring.

-The concentration and growth of gasoline and diesel powered vehicle traffic in and around the airport is a concern from an emissions impact perspective.

"Air Monitoring Study at Felton and Loyde Schools," dated September 2001:

The study undertaken at Felton Elementary School and Loyde High School was in response to community concerns about the impact of LAX and the 405 Freeway on air quality at these locations. Felton Elementary School is immediately east of the 405 Freeway and is in the prevailing wind trajectory of LAX. Loyde High School is several miles south of Felton School and also immediately east of the 405 Freeway but not downwind of LAX. For this study, a monitoring platform was placed on the Felton School grounds, collecting samples from December 8, 1999 to January 31, 2001 following the MATES-II study protocol. Additionally, a monitoring platform was placed at Loyde High School from November 8, 2000 to January 31, 2001. The results of this study were compared to the MATES-II fixed sites using similar data analyses techniques as utilized in the MATES-II study.

The principal findings of the study are as follows:

-Samples collected at Felton Elementary and Loyde High Schools were compared to results obtained during the MATES-II study for the same seasonal time period. Because this comparison is based on data collected two years apart, results are considered as indicators, rather than conclusions.

-Measurements at Felton Elementary School taken for a full year indicate levels of toxic air contaminants (TACs) at or below Basin-wide average levels measured during the MATES-II study with the exception of carbonyl compounds.

-Levels of formaldehyde and acetaldehyde (carbonyls) at Felton School are slightly above the Basin-wide averages determined during the MATES II study. These compounds are typically indicative of mobile source impact.

-Comparisons to the California Air Resources Board data for Los Angeles and North Long Beach for

the same calendar year indicate slightly higher maximum levels measured at Felton School of the mobile source related compounds 1,3-butadiene and benzene.

-Measurements of toxic air contaminants (TACs) at the Loyde School site are statistically equivalent to Felton School for the seasonal period measured. No inferences could be drawn of the impact of the airport on the Felton School site versus the Loyde School site with the exception of increased carbonyl concentrations at Felton over Loyde School. The increased carbonyls may or may not be wholly ascribed to LAX operations.

"Multiple Air Toxics Exposure Study (MATES-II), Final Report," dated November 2000:

The MATES-II study included both monitoring and modeling of toxic air contaminants throughout the South Coast Air Basin. Of relevance to LAX, two findings were made:

With regard to basin wide modeling (predictions made from estimated air emissions combined with dispersion modeling, the study states that (from Section 5.3) - "For mobile source compounds such as benzene, 1,3-butadiene, and particulates associated with diesel fuels, higher concentration levels are seen along freeways and freeway junctions. In addition, higher concentrations of benzene and 1,3-butadiene are estimated in and around major airports. In particular, benzene and 1,3-butadiene tend to be higher around the Los Angeles International Airport area and in the south central portions of Los Angeles County."

As part of the study, toxic air contaminants were periodically measured at the AQMD Hawthorne monitoring station located less than a mile south of the southeast corner of LAX. As stated in Appendix VI (page 37) – "Hawthorne was selected as one of the "hybrid" microscale sites because: (1) it is at an existing AQMD air monitoring station (to maximize use of existing facilities); (2) it is in an area which is not associated with many stationary source facilities and therefore could be used more as a "background" site; and (3) the site serves as an EPA-designated "PAMS" site which has a historical record of speciated VOCs, including several key toxic compounds. Sampling occurred during each of the four seasons."

Measurements collected at the Hawthorne microscale site were compared to measurements taken at the nearest "fixed" site (Compton). The results of this comparison were (Appendix VI, page 37) – "Concentrations of nine compounds were significantly higher at the fixed site (Compton) as compared to the microscale site (Hawthorne)... These pollutants include those associated with mobile sources (i.e., benzene, toluene, xylene, formaldehyde, and acetaldehyde) and others associated with stationary sources (i.e., methylene chloride and perchloroethylene). It appears that both stationary and mobile source influences are greater at Compton."

SAIP-PC00016 - 14

Comment: Noise

Notably, the Draft EIR concludes the "temporary noise impacts would be significant and unavoidable." (DEIR, p. IV-239.) Sensitive land uses (residences, schools, and churches, etc.) will be newly exposed to 65 CNEL and people already exposed to 65 CNEL will be exposed to still louder noise. Residents will be awakened, school disrupted, prayer interrupted. What consideration was given to avoiding these "unavoidable" impacts by such measures as:

- Temporarily shutting gates?
- Obtain voluntary agreements with airlines to temporarily distribute flights to other regional airports?
- Secure the appropriate waivers from the FAA to temporarily cap operations at levels consistent with three runways, instead of four?
- Accelerate the sound proofing program?
- Complete the sound proofing program before commencing the SAIP?

Response: Gate closures are considered a capacity limitation technique. For this reason, the temporary closure of gates as a mitigation technique is not considered to be legally feasible. The technique seeks to reduce noise by limiting the number of operations at the airport. With the passage of the Airport Noise and Capacity Act of 1990, Congress set forth the analytical requirements that must be met in order for an individual airport to establish noise or access restrictions/limitations. The requirements that must be met to restrict or limit aircraft are set forth in F.A.R. Part 161. Part 161

requires a rigorous analysis as well as final FAA approval of the restriction. The conditions for approval of a restriction affecting aircraft operations require that the analysis provide evidence of the following conditions:

- The restriction is reasonable, not arbitrary, and nondiscriminatory.
- The restriction does not create an undue burden on interstate or foreign commerce.
- The restriction maintains safe and efficient use of navigable airspace.
- The restriction does not conflict with any existing federal statute or regulation.
- The restriction does not create an undue burden on the national aviation system.

With limited capacity caused by closing Runway 7R-25L, additional capacity measures for purposes of mitigating a short-term noise impact may not meet the requirements stated above. Additionally, due to the amount of time required to conduct such a study, application for permission to apply capacity-limiting measures is not considered feasible for mitigating aircraft noise impacts associated with SAIP construction which is relatively short-term in nature. Please refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. See also Response to Comment SAIP-PC00018-4.

Obtaining voluntary agreement of airlines to shift operations to another airport temporarily in order to mitigate aircraft noise impacts is also considered infeasible. As discussed in Section 1.3 of the Draft LAX Master Plan Addendum, with the passage of the Federal Airline Deregulation Act of 1978, government agencies exercise a severely limited role in the regulation of commercial air transport, and airlines decide for themselves which airports to serve and how much to charge for service. As a general rule, airlines choose airports located nearest to the highest concentrations of conveniently located customers. In this deregulated, "market-place" environment, airlines will establish additional service at secondary regional airports only if the local market generates sufficient demand and adequate facilities exist. In some cases, secondary airports can offer a competitive advantage over a primary airport by reducing airline costs, or by providing more convenient access to and from a central business district or tourist destination. However, airlines are generally reluctant to serve secondary airports, even under these circumstances, if doing so would dilute their market share or significantly increase operating costs. The airlines provide service at the airports where demand exists. Without demand from the traveling public, airlines will re-deploy their assets to serve the greatest number of passengers and earn the best return on their investment. An airline that attempts to shift service from one airport to another may instead end up losing that share of the market to a competitor. LAWA has tried subsidies to encourage airlines to serve outlying Palmdale, with only limited success. LAWA's efforts to encourage airline service at Palmdale are discussed in Topical Response TR-RC-5 of the LAX Master Plan Final EIR.

With regard to mitigation related to sound proofing, under LAWA's Aircraft Noise Mitigation Program and LAX Master Plan Mitigation Measure MM-LU-1, the current ANMP will be accelerated during the term of the SAIP as discussed in Section 4.5 (subsection 4.5.8.1.1) of the SAIP Draft EIR. The ANMP program is designed to achieve full compatibility of all land uses within the existing noise impact area through (1) sound insulation of structures and (2) the acquisition and conversion of incompatible land use to compatible land use. However, it is not anticipated that the program will be completed during the SAIP construction period, due to the lengthy implementation process associated with soundproofing and the short-term and temporary nature of the SAIP-construction aircraft noise impacts. As explained in Topical Response TR-LU-3.8 in the LAX Master Plan Final EIR, the estimated timeframe for completion of acoustical treatment or acquisition of residential units within the City of Los Angeles identified under the current ANMP is less than 3 years, or by March 21, 2008, funding and capabilities of the affected jurisdictions permitting. While the City of Los Angeles may achieve soundproofing by this time, other jurisdictions will most likely complete sound insulation by 2015 and land acquisition by 2021, the dates referenced in the 2001 ANMP. Priority is typically given to those homes within the noise impact area that are experiencing the highest noise levels. Generally, this area is located directly east of LAX on the landing approach to the north runways. Sound insulation is prioritized for residential properties within the highest CNEL measurement band above the 65 CNEL noise contour (as shown on the ANMP) first. After sound insulation is completed, a flexible end group is formed, consisting of properties whose owners had previously declined to participate but have reconsidered, and new owners who wish to participate where the previous owner had declined. Property owners in this group will be given the opportunity to participate after all the initially selected properties in the same project band have been insulated, but before the next project band is started. More specific information relative to timetables for individual properties is available through individual jurisdictions.

For the reasons stated above, completion of the existing and/or revised ANMP prior to SAIP construction is not considered feasible. Please refer to Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. The primary purpose and need of SAIP is to improve safety at LAX by minimizing the potential for runway incursions in the south airfield complex at LAX. The existing runway incursion risk at LAX and the need for airfield improvements to help address and reduce that risk were clearly acknowledged and addressed in the LAX Master Plan EIS/EIR. The need to take immediate steps towards addressing the runway incursion issue in the south airfield at LAX is further underscored by recent events at LAX. Between June 1, 2005, and August 1, 2005, seven runway incursions have occurred at LAX, with six of these occurring on the south airfield. In two recent letters dated July 25, 2005 and August 2, 2005, the FAA expressed very serious concerns about the increase in recent runway incursions at LAX and recognizing the fact that the SAIP improvements will help prevent many such runway incursions. This immediate need to improve safety at LAX makes the requirement that the project be delayed until the ANMP is fully implemented infeasible.

Please also see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

SAIP-PC00016 - 15

Comment: Biotic Communities

The habitat unit analysis is disappointing because it results in such a small amount of restorable land. 126 acres of total impacted land is exchanged for merely 17 acres. Is LAWA constrained from using greater habitat unit values?

Alternatively if LAWA is so constrained, may LAWA employ a replacement ratio greater than 1:1?

Response: Topical Response TR-BC-1 in the LAX Master Plan Final EIR provides a discussion of the analysis conducted to determine the SAIP impacts and mitigation requirements. As described in Section 4.6, Biotic Communities, of the Draft EIR, 17.1 habitat units of impact were assessed, which does not necessarily correlate to 17 acres of mitigation. Although mitigation ratios for impacts to biotic communities were determined to be 1:1 for habitat units, mitigation credit will take into account existing habitat values of the biotic community prior to restoration. Given that a restored community can only be granted a habitat value of 0.8 and a given restoration site will likely have an existing habitat value greater than 0, the acreage of restoration required to satisfy the mitigation requirements will exceed 17.1 acres. Los Angeles World Airports has proposed the use of the habitat preserve at the Federal Aviation Administration-owned former Marine Corps Air Station El Toro to carry out mitigation plans. The acreage of restoration to be carried out will be assessed and determined in consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

SAIP-PC00016 - 16

Comment: The Ballona West Bluff should be considered by LAWA as a habitat restoration site. It is superior to the proposed El Toro site because of its proximity to LAX. The Bluff site is approximately two miles from the SAIP. At 44 acres, it is large enough to accommodate the proposed habitat area from the SAIP area. The bluff top shared many of the same species found or potentially present at the SAIP site. Furthermore, it shares the same compacted sandy soil as LAX. The bluff, until recently, was the site of vernal pools.

The bluff lies north of LAX, so that birds that used the bluff would not interfere with the airport flight tracks, which run east and west.

The species described in the DEIR are nearly extirpated from the Westchester/Ballona area. Thus, habitat restoration in El Toro (Orange County) exacerbates the threat to these species' continued survival locally.

The Bluff owner is a willing seller. In combination with other revenue sources, a sufficient portion of the Bluff could be acquired to make local restoration a viable alternative.

Response: The content of this comment is similar to comment SAIP-PC00006-86; please see Response to Comment SAIP-PC00006-86 regarding the assessment and selection of potential mitigation sites.

SAIP-PC00016 - 17

Comment: When addressing potential impacts to biotic communities from the SAIP and future modernization projects, I strongly recommend that LAWA obtain input from the community of local environmentalists and academics who possess expert knowledge of the local ecosystems.

Response: This comment pertains primarily to LAX Master Plan Final EIR, inasmuch as it seems to be referring to all projects undertaken as part of the LAX Master Plan. Issues pertaining to the LAX Master Plan have been previously addressed in the LAX Master Plan EIS/EIR, and need not be revisited as part of the SAIP EIR. Please see Topical Response TR-SAIP-PD-2 for a general discussion of the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR. Additionally, it should be noted that copies of, and notices of availability for, the SAIP Draft EIR were widely distributed to the public, agencies, organizations, and institutions, including schools, affording all with the opportunity to provide comments and input regarding issues addressed in the SAIP Draft EIR, including biotic resources and local ecosystems.

SAIP-PC00016 - 18

Comment: Land Use

It is unclear how LAWA determined that the SAIP is "consistent with applicable local land use plans and zoning." (DEIR, p. I-3) On March 30, 2005, under the authority given to the Los Angeles County Airport Land Use Commission (ALUC) by the Public Utilities Code, the ALUC took final action and upheld the determination that the Master Plan is inconsistent with the County Land Use Plan. The inconsistency determination arises in large part from the SAIP and the altered noise contours it creates. Thus, LAWA's determination contradicts that of the County of Los Angeles. Please explain LAWA's consistency determination in light of this contradiction.

Response: Please see Response to Comment SAIP-AL00001-1. Further discussion of the SAIP's consistency with other applicable plans is contained in Section 5.1 of the SAIP Draft EIR.

SAIP-PC00016 - 19

Comment: Conclusion

The individual and cumulative impacts of Alternative D, including the SAIP, upon the health, safety, peace of mind, and education of residents and students around LAX are of substantial concern to me. The Draft EIR recognizes potentially significant impacts arising from the SAIP to hydrology and water quality, off-airport surface transportation, air quality, human health risks, noise, land use, and schools. The Draft EIR fails to properly propose mitigation methods for these impacts.

Response: Please refer to Topical Response TR-SAIP-GEN-3 regarding mitigation measures. Please also see Topical Response TR-SAIP-HRA-1 regarding human health risks and mitigation for human health impacts. Where impacts are determined to be potentially significant, mitigation measures are proposed, as CEQA requires.

SAIP-PC00016 - 20

Comment: Furthermore, the Draft EIR should consider certain reasonable alternatives not discussed in the document.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan Final EIR. A full range of alternatives was investigated in the Master Plan Final EIR.

As this Final EIR has been tiered from the LAX Master Plan Final EIR, it is not necessary to revisit prior project alternatives.

This comment does not specify the "certain reasonable alternatives" the commentor apparently may have in mind. Thus, it is not possible to provide a more specific response.

SAIP-PC00016 - 21

Comment: Due to the uncertainty of the scope of implementation of the LAX Master Plan, the SAIP should be analyzed as a stand-alone project.

Response: Regarding the comment's assumption that the implementation of the LAX Master Plan is uncertain, please see the Response to Comment SAIP-AL00005-35. It would be speculative to assume that the LAX Master Plan will not be implemented. Thus, the comment's premise is untenable. Furthermore, the SAIP and the LAX Master Plan and LAX Master Plan Final EIR meet CEQA's criteria for tiering and preparing a tiered EIR. Using the tiering process reduces redundancy and saves resources. Thus, there is no reason to analyze the SAIP as a stand-alone project.

SAIP-PC00016 - 22

Comment: Thus, I strongly urge that LAWA revise the Draft EIR to take these points into account and that it take no action to approve the SAIP as currently proposed.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00017 Sambrano, L. Diane None Provided 9/15/2005

SAIP-PC00017 - 1

Comment: The Draft Environmental Impact Report for the South Airfield Improvement Projects begins on the premise that all the projects of the LAX Master Plan will be completed. In doing so there are no impacts studies included if only portions of the Master Plan are completed.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR. Please also see Responses to Comments SAIP-AL00005-35 and SAIP-PC00016-21.

SAIP-PC00017 - 2

Comment: Among the findings of the report are conclusions drawn based on what the writer's anticipate/expect to find rather than unbiased studies. Pollutants of Interest were limited to only 6 predetermined pollutants. This continues the practice of limiting truth of impact in air quality.

Response: Six "criteria" pollutants were evaluated in the SAIP Draft EIR, including sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM₁₀), particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (PM_{2.5}), nitrogen dioxide (NO₂), and ozone (O₃). The air quality analysis in the Draft EIR focused on these criteria pollutants because: (1) aviation and construction activities are sources of these pollutants or their precursors, and (2) the South Coast Air Basin is designated nonattainment or maintenance for most of these pollutants.

In addition to presenting an analysis of "criteria" pollutants, the SAIP Draft EIR also presents a discussion of toxic air contaminants. A list of toxic air contaminants of concern with respect to the SAIP is presented in Section 4.4.2.4.1.

SAIP-PC00017 - 3

Comment: There are misrepresentations throughout the report making belief in the findings questionable.

These include:

Table 3-1 item 75 - Land for the YMCA has not been purchased even though it was implied it was in youth activity operation in the Master Plan EIR. It is possible that the door may never be built much less open for business.

Response: Comment noted. The commentor refers to a non-LAX related project. That project was described as part of the background environment in which SAIP construction would occur, and also for use in assessing the cumulative impacts of construction-related activities under the SAIP in the context of other foreseeable projects. If a project identified in this capacity in the SAIP Draft EIR does not occur, it will not increase the impacts of construction-related activities under the SAIP or their severity. Therefore, the status of the project identified in this comment is not relevant to the adequacy of the SAIP Draft EIR, and thus does not require a further response. Please see also Topical Response TR-SAIP-GEN-2, regarding cumulative impacts.

SAIP-PC00017 - 4

Comment: Table 3-1 items 70, 71, and 72 do not have plans submitted much less construction begun. The current movie industry dip in ticket sales may very easily make the proposed theatres more never completed projects promoted for image enhancement during election season.

Response: The content of this comment letter is similar to comment SAIP-PC00017-3. Please see Response to Comment SAIP-PC00017-3. Please see also Topical Response TR-SAIP-GEN-2 regarding the analysis of cumulative impacts in the SAIP Draft EIR.

SAIP-PC00017 - 5

Comment: Exhibit 4.3-4 Indicates there were no Air Quality Grids placed East of Hawthorne Blvd. as if "just like magic" all pollutants hit the Center Line of Hawthorne and the Wonder Filter miraculously renders air quality suddenly mountain fresh before the next sidewalk curb.

Response: For the air quality dispersion modeling, receptor points (grids) were located along the airport property line and in areas on and off the airport that are publicly accessible. The receptor grids were extended some distance beyond airport property to ensure that peak airport-related pollutant concentrations would be identified. The absence of receptor grid points east of Hawthorne Blvd. should not be interpreted to imply that airport-related pollutant concentrations are zero at those locations; however, based on air quality modeling conducted for the LAX Master Plan Final EIR and the Draft EIR for the SAIP it has been determined that potentially significant pollutant concentrations are located west of Hawthorne Boulevard.

SAIP-PC00017 - 6

Comment: Exhibit 4.5-3 Does not include all Faith-based Institutions seven within blocks covered - most obvious among those not indicated is the 20,000 seat Faithful Central Bible Church currently using "The Forum" as its meeting place.

Response: Please see Response to Comment SAIP-PC00006-83 regarding the inclusion of faith-based facilities within the study area. Places of worship sites that are designated as such through County of Los Angeles assessor records, local parcel data and land use and window surveys are plotted in a Geographic Information System (GIS) and in the FAA's Integrated Noise Model. INM calculates the CNEL levels for each place of worship (designated with a code beginning with 'CH' in the database). Other supplemental metrics are also calculated. The results are provided in Appendix M of the Draft EIR. INM is also used to calculate the 65 CNEL and greater contour for both the 2003 Baseline and Project (2005) condition. These contours are overlaid on a map containing all the noise-sensitive facilities such as places of worship. Those facilities that fall within or intersect the 65 CNEL contour are reported and accounted for in the noise-sensitive facility counts in Table 4.5-4 and Table 4.5-13 of the SAIP Draft EIR. The comparison between the 2003 Baseline and

Project (2005) 65 CNEL and greater contour also indicate those facilities that are newly impacted by SAIP construction conditions. The number of churches (places of worship) are reported in Table 4.5-16 of the Draft EIR. INM is also used to calculate a 1.5 CNEL contour, which indicates areas that are newly impacted by the 65 CNEL and greater contour and will be exposed to a 1.5 CNEL or greater increase. This contour is overlaid on the GIS map containing all noise-sensitive facilities (including places of worship), and all sites that either intersect or fall within this contour are reported and counted in Table 4.5-17 of the Draft EIR.

The commentor does not clearly identify faith-based facilities that are not included in the SAIP Draft EIR except for the Faithful Central Bible Church. Assuming that the Faithful Central Bible Church uses the "Forum" (known as the Great Western Forum located in the City of Inglewood) to congregate, the City of Inglewood General Plan and zoning designates the Forum as Commercial/Recreation. The determination is based on the primary use of the facility. This type of facility is not considered incompatible to aircraft noise based on the California Department of Transportation, Division of Aeronautics Noise Standards outlined in the California Code of Regulations Title 21 Section 5014 (please refer to Table M-7b in Appendix M of the SAIP Draft EIR). According to the Noise Standards, the land use type designated for the Forum (recreational/commercial) is not considered to be an incompatible use within the 65 CNEL. Therefore, the designated use of the facility is not considered to be significantly impacted by the SAIP.

SAIP-PC00017 - 7

Comment: Exhibit 4.5-7 referred to in discussions regarding Night Awakenings on page IV-167 is generated by a "study" which fails to take into account those residence addresses that actually call into the 64-NOISE phone in disturbance report line. OOPS all those times my address appears on the monthly reports and still I'm not on the map! No wonder my neighbors told me they thought it was a waste of my time. Good golly, I must have spoken to all the field operations staff many who know my voice while I was phoning in my sleep!!!!!!!!!!!! This exhibit alone stands as evidence that the local community is simply ignored by those with a "money- above- all" mentality!!!!

Response: Public comment received during the review of the LAX Master Plan Draft EIS/EIR was one of the determining factors used to select the potential for the public to be awakened at night for single event evaluation. Please see Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29, and SAIP-AL00005-71 and SAIP-AL00005-72 regarding the definition of nighttime awakenings thresholds of significance. A historical summary of how the nighttime awakening thresholds were determined and cited research articles evaluated during the LAX Master Plan EIR process is discussed in Section 4.1 of the LAX Master Plan Final EIR.

Assuming the commentor is referring to the 1997 Federal Interagency Committee on Aircraft Noise (FICAN) report on the Effects of Aviation Noise on Awakenings from Sleep, the information provided on Figure 2, Recommended Sleep Disturbance Dose Response Relationship, is still considered the best available science regarding the relationship between nighttime awakenings and aircraft noise. The FICAN curves used to depict the 10 percent awakening threshold is representative of large samples of populations exposed to a variety of awakening situations. Because the FICAN approach was based on statistically reliable evaluations, the noise level associated with the 10 percent awakenings level was selected by the sponsor for its standard for significance.

LAWA maintains a 24-hour noise complaint hotline that can be reached by dialing (310) 646-6473. In most instances staff are available to take calls, however, if staff are not available a system is in place for leaving messages. LAWA also has an electronic complaint form that is available on the LAX website at www.lawa.org/lax. Complaints that are filed by phone or through the website can, upon request, receive a written response by LAWA's Noise Management Section once an investigation is complete. In addition, LAWA's website provides an Internet flight tracking system that allows the public to identify overflights specifically by aircraft type and altitude on an on-going basis with a ten-minute delay. Aircraft flight ID, origination, and destination information are available after a one-hour delay. Monthly reports summarizing the reported noise complaints and the results of the investigations are also available on the web site.

SAIP-PC00017 - 8

Comment: It is heart warming to know that 1,400 cancer cases per million is so acceptable that the AQMD map of high risk areas indicating LAX is less healthful can be so happily explained away. Blaming "on-road mobile sources" while completely denying that increasing traffic to the area to board the additional air traffic fails to connect cause and impact. Wow, how impressive a new study will be reinitiated! This somehow is going to make it okay that the study was not performed prior to project approval.

Response: The SAIP Draft EIR uses available information from authoritative sources to define baseline environmental conditions in the South Coast Air Basin in which LAX is located (South Coast Air Quality Management District, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II), November 1999). This information is provided to inform the assessment of health risks, and is required for full disclosure under CEQA while providing a frame of reference for readers of the SAIP Draft EIR. Conclusions about the source(s) (e.g., vehicle traffic) and magnitude of potential cancer risks in the basin under baseline environmental conditions are taken from studies by the South Coast Air Quality Management District, that were prepared independently from the analyses in the Draft EIR.

Moreover, as described in Section 4.4.2.2 of the SAIP Draft EIR, many sources of toxic air contaminants (TAC), including on- and off-road construction equipment, generators, construction materials, aircraft, ground support equipment, private vehicle traffic on roadways and parking lots, and stationary sources, were all included in estimates for impacts of TAC releases associated with the SAIP. Increased traffic in the vicinity of the airport, along with many other sources, was, therefore, incorporated into the evaluation.

As noted in Section 4.4.6.5 of the SAIP Draft EIR, emissions from aircraft, trucks, and construction equipment are specifically identified as responsible for nearly all of the potential health risks associated with the SAIP. Furthermore, as noted in Section 4.4.9 of the SAIP Draft EIR, these health risks are significant and unavoidable. Therefore, the commentor is incorrect that the analysis fails to connect cause and effect.

Finally, the comment mentions a "new study", but does not identify specifically what study is being referenced. It is assumed that the comment refers to the LAX Air Quality and Source Apportionment (AQSA) Study that was delayed as a consequence of the events of September 11, 2001. The overarching objective of the LAX AQSA Study is to gather sufficient data to allow a reliable attribution of source contributions to ambient air quality concentrations in the areas surrounding LAX. The study is also designed to help assess sources and relative impacts of LAX-originated emissions from on-going operations. Thus, the study will not provide additional information about potential impacts associated with the actual construction of the SAIP. Please see Response to Comment SAIP-PC00010-22 for more information regarding the LAX AQSA Study, including reasons why the study was not required to be completed prior to completion of the SAIP Draft EIR.

SAIP-PC00017 - 9

Comment: How ever so amazing, that "risks in this area were not estimated directly because no permanent monitoring station for Toxic Air Contaminants was located at or near LAX as part of the MATES-II Study. Furthermore, insufficient data were collected by SCAQMD to derive the direct contribution of LAX operations to cancer risks in surrounding communities." (4.4.3.1 page IV-131) Those of us in the "surrounding communities" are supposed to be happy there is no study to tell us our neighbors high rate of cancer death need not be a concern since we haven't been charted in an official study. Somehow I doubt this non-study would be sufficient to suggest that construction begin quickly if a more affluent community were in the area that had simply been unstudied.

Response: The Multiple Air Toxics Exposure Study -- II (MATES-II), conducted by the South Coast Air Quality Management District (SCAQMD), was not intended to specifically address emissions of toxic air contaminants (TAC) from LAX. The study had a much broader purpose -- to assess the magnitude of possible carcinogenic risks associated with TACs in the South Coast Air Basin, and to identify those sources of TACs that contribute the most to these risk estimates. The study produced

estimates of carcinogenic risk applicable in a general manner to all communities in the basin. Accordingly, the study provides essential information regarding baseline conditions for communities in the vicinity of the airport.

Because MATES II was not designed specifically to address emissions from LAX, it was not used to describe potential impacts of the SAIP. Instead, widely-used and accepted methods were employed to estimate release and dispersion of TACs from the airport to surrounding communities, and to estimate potential impacts from these TACs on people living in these communities (please see Topical Response TR-SAIP-HRA-1). This approach allows for the evaluation of LAX impacts in the absence of an empirical study, such as MATES-II but directed specifically at LAX. LAWA has no information to suggest that this approach could not have been used successfully if LAX was located adjacent to more affluent communities.

Please see Responses to Comments SAIP-PC00010-22 and SAIP-PC00010-23 regarding the LAX Air Quality and Source Apportionment Study (LAX AQSA Study) and Response to Comment SAIP-PC00010-24 regarding the lack of a permanent monitoring station for toxic air contaminants in the LAX area. The lack of a nearby monitoring station did not hinder the health risk assessment that was conducted as part of the SAIP Draft EIR. This risk assessment was based on estimates of emissions from airport sources and dispersion modeling of these emissions to estimate air concentrations at locations around the airport boundary. Thus, empirical measurements from monitoring stations were not required. It should be noted that, as indicated in Response to Comment SAIP-PC00010-22, the LAX AQSA Study will include monitoring of air pollutants, including toxic air contaminants, in the vicinity of LAX.

SAIP-PC00017 - 10

Comment: Single Event Noise and Awakenings 4.5.2.2.1 uses as its source a report from 1997 yet fails to have any base for tracking actual outreach to the community near LAX where midnight to 6:00 a.m. flights are routinely dismissed as unavoidable due to Asian Noise restrictions. While most intrusions on sleep tend to go unreported to the noise phone line simply because doing so is an even greater inconvenience does not mean that sleep was undisturbed. Sound insulation may diminish the number of persons who report awakenings but it fails to address the violation of promises to limit over resident midnight to 6:00 a.m. landings and take-offs.

Response: Single-event aircraft noise impacts on nighttime awakenings takes into account average annual operation patterns that occur during the nighttime hours (10 p.m. to 6:59 a.m.). Please refer to Section 4.5.6.1.4 of the SAIP Draft EIR regarding significant nighttime awakening impacts associated with SAIP construction.

Assuming the commentor is referring to the Over-Ocean nighttime noise abatement procedure, LAX Master Plan Mitigation Measure MM-N-5 has been initiated by LAWA to seek Federal approval of a locally-imposed Noise and Access Restriction on departures to the east during Over-Ocean operations, or when Westerly Operations remain in effect during the Over-Ocean operation time period. It is not expected that the FAR Part 161 application process to the FAA will be completed until after construction of the SAIP. Please refer to Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. Please also refer to Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29, and SAIP-AL00005-71 through SAIP-AL00005-72 regarding single-event noise on nighttime awakenings.

See also Responses to Comments SAIP-PC00006-78 and SAIP-PC00016-14, regarding the infeasibility of mitigating the airport noise impacts of SAIP construction related activities through capacity limiting means or changes to approach or departure paths.

SAIP-PC00017 - 11

Comment: By far the most disgusting insult to the Spanish-speaking community most impacted by the entire project is that they were asked to respond to a document that was not made available in a language they could understand. While an attempt to include the Spanish-speaking community was added for the SAIP, it is painfully clear, from speaking directly to the Spanish responders at the September 2005 Workshop, that they had received only a filtered verbal summary (if that) of what the SAIP

included! This disregard for what they had as a basis for asking questions would be similar to asking those reading this to share their considerations regarding the post lapserian philosophy of predestinational origin.

Response: Production, publication, and distribution of the SAIP Draft EIR was conducted in accordance with CEQA. Public notices were published in Spanish in Spanish language newspapers, and the service of a Spanish translator and bilingual staff were available to participants at the Semi-Annual Stakeholder Forum and the General Assembly of LAX Master Plan Committee Members.

As explained in Response to Comment PC02236-15 in the LAX Master Plan Final EIR, under Section 4.4.3.7 of the LAX Master Plan Final EIR, LAWA developed an Environmental Justice program in accordance with Executive Order 12898 and California law. This program was created to facilitate open communication between LAWA and local minority and low-income communities affected by activity at LAX. Efforts to include members of the Spanish-speaking community have been successful and LAWA is committed to encouraging inclusion into the future.

SAIP-PC00017 - 12

Comment: While those who have routinely voiced our observations to the LAX Master Plan have been characterized as attempting to stop progress, it is my belief that we are asking that those so determined to increase capacity to carefully consider the results of failure to wisely analyze impact. Historians evaluate all civilizations not only by their ability to generate wealth, create grand transportation systems or build great architectural wonders but also by the impact upon those used or abused in the building of those creations. Does the 2005 Los Angeles City Council wish to be remembered in the same light as the Egyptians whose pyramids were built slaves or more recently as plantation owners who disregarded the human impact of their textile/tobacco industry. I wonder how far the council members have distanced themselves from the pesticide dusting on field hands that pick the fruits we eat. Through the ages of time financial profit has overlooked the human cost. The Impact Report for the South Airfield Improvement Project fails to address the many human quality of life impacts by not even bothering to conduct genuine studies or frequently not including information collected by LAX as part of those studies.

Response: Comment noted. Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR. The comment does not raise an issue regarding the contents or adequacy of the Draft EIR, and thus does not require a further response.

SAIP-PC00017 - 13

Comment: To pretend that this project is about safety or security is failing to realize that the significant "threats" this project mitigates is pilot or taxiway protocol which could be addressed by training. In truth this project is to accommodate the New Larger Aircraft which due to higher operating costs may not even be frequently used -- Does anyone remember the Super Sonic Aircraft Projections?

Response: This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis, and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here.

The SAIP is being pursued primarily to enhance safety at LAX, not to accommodate new large aircraft (NLA) such as the A380. As discussed in Chapter 2 of this SAIP Final EIR, the south airfield has experienced a high number of runway incursions. Runway incursions represent a serious threat to aviation safety. By moving Runway 7R-25L and constructing a new center taxiway, the SAIP offers the best physical solution to reducing the risk of runway incursions. Runway 7R-25L is the only runway at LAX that is wide enough to accommodate the A380 and would be used for that purpose regardless of the SAIP.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00017 - 14

Comment: It is my hope that future project impact reports will be far more truthful and less "already determined" result based. Regional Air-Traffic options contribute far more to safety and security concerns than overloading an already overloaded airport.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00018 Hurst, Richard El Segundo Aviation Safety and 9/15/2005
Noise Abatement Committee

SAIP-PC00018 - 1

Comment: The Aviation Safety and Noise Abatement Committee (ASNAC) is a local citizens committee that seeks to examine noise and safety related issues emanating from LAX. The purpose of this letter is to provide committee comment on the Draft Environmental Impact Report (DEIR) issued recently by LAWA as a part of the South Airfield Improvement Project (SAIP).

In general, I we believe that the DEIR includes multiple assumptions that fail to mitigate properly the environmental noise and safety issues that would result as a by-product of the SAIP. Following is a list of specific concerns:

Response: The comment is noted. Please see Responses to Comments below. Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

SAIP-PC00018 - 2

Comment: TRAFFIC

Los Angeles, of course, has been known as a crowded and smog-infested city. The population has only grown, and the streets have gotten more crowded - especially on the 405 Freeway on the "South Bay Curve" where traffic typically flows best at 3am and very poorly at best all other times of the day. In addition, The City of Los Angeles has seen fit to add 32,000 residences to the marshlands around LAX area without adding any new roads or widening the freeways. Now they want to double the non-residential flow into the same area by having vacationers and businessmen flow into the trouble zone, again, without any new road or widening the freeways. The DEIR doesn't address this most basic concept other than to irresponsibly brush it under the rug. This alone should stop the proposed expansion of LAX, and its Master Plan.

4.2.6.3 talks of traffic going up certain percentages as if they are inconsequential, but as you probably already know, that if 100 cars on the freeway can go 65+ MPH, 120 cars will only be able to do maybe 25 MPH...20% increase in cars is unacceptable and LA city has already added more than its share as stated above.

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The SAIP Draft EIR traffic impact analysis is limited to assessing potential impacts associated with the construction of the SAIP. It is not necessary or appropriate to respond to comments pertaining to regional growth within the City of Los Angeles and the effect this growth may have on the I-405 freeway and other roadways.

Specific to the SAIP, the limits of the SAIP study area and the potentially affected intersections were determined through consultation with the Los Angeles Department of Transportation (LADOT), and include those facilities that would potentially be most affected by construction-related employee and

truck traffic resulting from the construction of the SAIP. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to construction of the SAIP.

According to Los Angeles County Congestion Management Program (CMP) guidelines, a Traffic Impact Analysis is only required if a project will add 50 or more trips at a CMP arterial monitoring intersection during either the a.m. or p.m. weekday peak hours, or if the project adds 150 or more trips, in either direction, to a CMP mainline freeway monitoring location, during either the a.m. or p.m. weekday peak hours. SAIP construction would not generate traffic during the a.m. or p.m. peak periods. Given that detailed analysis of the freeway system, including the I-405, is not required for this study, assessment of potential impacts and mitigation measures is not warranted.

Please note that the percentages referenced in Exhibit 4.2-5 of subsection 4.2.6.3 of the SAIP Draft EIR are the assumed percentages of the distribution of project-related traffic on the roadway system. Although 21% of the project-related traffic is expected to use the I-405 Freeway north of the airport, this does not translate to a 21% increase in traffic on the freeway. In reality, the percentage increase of traffic on the I-405 Freeway caused by the project would be very small. Furthermore, the percentage increase during the freeway peak hours would be negligible given that the SAIP employee and construction trips will be scheduled to avoid the freeway peak periods of 7:00 to 9:00 a.m. and 4:30 to 6:30 p.m.

SAIP-PC00018 - 3

Comment: Suggestion: LAWA should purchase land near the 605 and 105 (or further east by 20 miles) and build a large regional parking structure there, central for southern California, and build a magnetic rail that connects with the MTA Red, Blue, and Green Lines that will take passengers to Palmdale or somewhere where people won't be adversely affected in health and well-being. LAWA operates a suitable, but vastly underutilized airport in Palmdale. Residence of Lancaster/Palmdale welcome and support Palmdale airport expansion, vs El Segundo. For years, LAWA's argument for not appropriately developing that airport has been that airlines will not fly there. However, that assumption runs counter to the concept of supply and demand. Quite simply, if the demand is there, the airlines will supply it. Its like saying there is no demand for cars to cross the river, so the Golden Gate Bridge in San Francisco should not have been built.

The Antelope Valley is rapidly growing region. Some project that the ultimate build-out of Palmdale, Lancaster and surrounding communities will exceed one million people. If the high-speed rail system is established between Los Angeles and Antelope Valley, that projection might prove to be conservative, Southern California is growing northward and the high desert of the Antelope Valley region is perfect, ready, and waiting for the inevitable to come. As such, it makes no sense that LAWA remains unceasing in its efforts to develop and expand an over-utilized facility like LAX when Palmdale represents nearly fallow ground in a vast untapped market. The members of ASNAC and hold strongly our belief that the best way to address the air travel needs of Southern California is to begin maximizing the potential of outlying facilities, such as Ontario and Palmdale Airports.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00018 - 4

Comment: NOISE

Historically, El Segundo was among the earliest developments in the region. El Segundo means "The Second"...refinery for Standard Oil in the very early 1900's. And, it had a town setup here

before Mines Field expanded and evolved into present day LAX. The occurrence of World War II established considerable national priorities and local residents, of course, accepted the increased aviation activity next door (and the inconveniences that accompanied such activities) with complaint. But, with the arrival of the Boeing 707 and the current jet age the noise simply became too much. We gave them an inch, and they took a mile - and El Segundo has been forced to co-exist with an extraordinarily burdensome neighbor that does little to curb noise. Currently, the first 3 blocks of homes parallel to LAX have to contend with horribly loud noise that stops conversation on the phone or with people in the same room till the aircraft pass. Also the vibration will cause things to move and fall off the shelves. We constantly have been awakened up in the middle of the night to investigate what crashed to investigate what fell off the shelf to the ground. I personally got into the habit of every evening I push all items on my shelves in the den, living room, and kitchen to the far back or middle so they don't vibrate off due to Fed-Express aircraft taking off in the middle of the night.

One irony of this situation is that LAWA retains the ability to mitigate a good portion of the noise created from the airfield through the Residential Sound Insulation (RSI) Funds distributed by ... But this is assuming that people don't want their windows open for fresh air, or that being outdoor gardening isn't important to a good health and good community which the foundation of our ole town of El Segundo.

Response: As discussed in Section 4.5 (subsection 4.5.8.1.1), mitigation for the LAX Master Plan includes Mitigation Measure MM-LU-2, which is designed to soundproof residential units impacted by potential sleep disturbance caused by aircraft noise impacts associated with the Master Plan, including aircraft noise impacts associated with post-construction operation of the SAIP. However, it is not feasible to fully implement this measure during the short-term and temporary period in which the construction-related aircraft noise impacts evaluated in the SAIP Draft EIR will occur, due to the lengthy implementation process for this measure and issues of funding availability. See also Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP and TR-SAIP-N-1 regarding noise impacts of construction-related activities under the SAIP.

SAIP-PC00018 - 5

Comment: Now LAX has the audacity to say the Airbus A380 is "vital" to LAX and they must be here and must be on the south outboard runway, nearest to the residence of El Segundo. (Note: When real life studies come out about the A380, working noise versus stage 4 testing performance study, the runway on the inboard will turn out to be the better choice.) And they want to build an infrastructure that can allow the doubling of passenger handling...Hence: twice the load (A380), twice as often, equals four times worst (2x2=4) on an already unbearable situation. LAWA should not hold our valuable real-estate captive to their insatiable desire to expand.

Note: Boeing has not gone further with its plans to compete with the A380 due to they believe as most in the industry believe, the A380 will go by way of the Concorde. Instead of larger aircraft Boeing is focusing on its 7E7 (small aircraft) and its new series of midsize aircraft, because the public is not in favor of larger aircraft due to the preference of direct flights vsconnecting flights. Nor do they wish to board a 500 to as much as 1000 passenger aircraft. Supply and demand requires that Boeing end production of aircraft like the 747. Boeing has put on hold all plans for a decade to compete with Airbus and the outdated larger aircraft market. Thereby it's not worth it to private industry to put money into A380 type runway projects, why is our Government (LA 4 FAA) putting money into Airbus, especially when they are the competition to American jobs at Boeing!

Suggestion: It is unnecessary to expand the runway for the A380, but if the Airbus needs to come here for cargo for LAWA "survival", then put it further away from residence not closer. Put the loudest aircraft on the inboard runways. Thereby build the inboard thicker and utilize the fact that it is already the longer runway designed for bi cargo laden aircraft and have the smaller aircraft utilize the outboard.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. As stated in Chapter IV, Corrections and Additions to the Draft EIR, A380 service is projected to initiate within the 2007 timeframe. This would occur regardless of the SAIP.

SAIP-PC00018 - 6

Comment: Also unless unavoidable have all takeoffs on the inboard runway and landing on the outboard runway. In a real world setting that should be at least 95% of the time compliant. And have an enforceable agreement with your neighbor to the south that will include fines if deviation does occasionally occur. The fiscal impact to LAX adhering would be minimal, and you get what you want.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the Draft EIR, and thus does not require a further response.

SAIP-PC00018 - 7

Comment: HEALTH

There are ongoing concerns about cancer in the El Segundo community - with recent high profile cancer-related deaths fueling that concern. The concern is for the 25% of the year the wind brings airport Jet A exhaust fumes to our residence. 1.3.4.2, 4.4.7.1 Talks about studying the problem, but nothing more of value to residence around the airport.

Response: The comment implies a link between Jet A exhaust fumes and cancer risk in the El Segundo community. Please see Topical Response TR-HRA-2 in the LAX Master Plan Final EIR regarding links between LAX emissions and community health effects. In addition, possible human health risks are evaluated for locations along the fence line between LAX and El Segundo in Section 4.4 of the Draft EIR, with supporting technical data and analyses provided in Appendix L. This evaluation incorporates meteorological data collected at LAX, which includes periods of time when wind might carry LAX emissions toward parts of El Segundo (please see Section 4.3.2.5.2 of the SAIP Draft EIR). As indicated in Section 4.4, potential incremental health impacts associated with the SAIP would be significant. Please see Topical Response TR-SAIP-HRA-1 for an explanation of why these incremental impacts were found to be significant. Measures to mitigate emissions from airport-related construction, transportation, and operations will be implemented to reduce these impacts. Please also see Topical Response TR-SAIP-HRA-1 regarding mitigation of health related impacts

SAIP-PC00018 - 8

Comment: SAFETY

The center taxiway has to be eliminated from the Master Plan because it takes up too much valuable space. Of the experts and pilots I have talked with, not one has understood how the center runway would legitimately prevent the kind of incursions that LAX has a history of. The Los Angeles Fire Department Crash Crew's main preference of having the center taxiway is it gives them more options to drive around if a crash occurs, and just short of that they don't see any reason for it either. Pilots and Crash 80's are the real life experts putting the theory to the test and find it comes up way short of any benefit to safety. The real issue is the over-crowded skies over and around LAX. They can't safely expand any more. This is a fact and the last crash at LAX proves it! (See Exhibit 1 Two aircraft given permission to use the same runway by the same tower, 34 killed) The center taxiway is a red herring! You need to increase RPZ (Runway Protection Zone AC 150/5300-13) not decrease RPZ if you have more air traffic. (refer to note *) Volume is the key to increasing the likelihood of another aircraft hitting another aircraft in a crowded airspace that LAX leads the world in. LAX is the busiest airport on the smallest acreage with the most civilian and general aviation in the world, and the EIR is trying to say if they build a nearly worthless taxiway, the skies will be safer. That just does not make sense. The EIR failed again, it wastes taxpayer money and leaves LAX significantly more unsafe.

* Note: Also, going back a few years, 5/11/69, people died when a B-26 lost an engine and its trajectory flew its deadly path to 335 Eucalyptus where it crashed. Most airliners today find it cheaper for maintaining 2 engines vs. 3 or 4, and if they do an takeoff then here they would come. Common ways to lose an engine, birds or mechanical, under stress of takeoff and in one case they forgot to lock the engine in place and it just fell off the wing!

Suggestion: Keep aircraft further away from residence

Suggestion: Take the center taxiway out & move the Southern/Outboard runway/25L further north not south.

Response: The development of a new center taxiway between Runways 25L and 25R is consistent with the LAX Master Plan and the requirements, in terms of land required for the development, have been accounted for in the Master Plan. As described in Chapter 2, Project Description, of the SAIP Draft EIR, the primary purpose of the SAIP is to reduce the potential of runway incursions in the South Airfield. This is being achieved by redirecting pilots, and aircraft, that would otherwise exit Runway 25L to the north and potentially misjudging their location before entering the departure runway (Runway 25R). The reconfigured airfield will force arriving aircraft to taxi and hold at the center taxiway. The geometry of the center taxiway will require that aircraft perform an additional maneuver (turn) before they are cleared to cross Runway 25R. This will eliminate the airfield environment that has partially lead to runway incursions at LAX in the past.

Pilots and Crash and Fire Rescue (CFR) personnel are trained on their specific fields and therefore can be considered experts in their respective fields; however their perspective on the issue or runway incursions might be limited to their background and training. The evaluations LAWA has undertaken to determine the best possible solution to mitigating runway incursions has included a diverse universe of opinions and points of views, one of them was the pilot community. As noted in Chapter 2 of the Draft EIR, LAWA partially relied on the findings of a study performed by NASA Ames where controllers, pilots, the FAA, and other parties participated in the evaluation of the proposed project (SAIP). The pilots representing this stakeholder community included airline pilots and representatives (chief pilots) from the major airlines operating at LAX.

The dimensions and locations of the Runway Protection Zones (RPZ), as noted in the comment, are defined by the FAA in Advisory Circular 150/5300-13, "Airport Design" and are subject to the type of runway and the type of aircraft operating on the runway in question. The first criterion (runway type) is defined by the type of instrumentation available for pilots, which in turn relate to Approach Minimums. The second criterion, Approach Speed, is related to the aircraft performance characteristics. The SAIP will not alter the size of the RPZ, rather will relocate their definition an equal distance to the south as the relocation of the Runway Centerline. The size of the current RPZ for Runway 7R/25L is the largest of the recommended by the FAA.

While the scope of the SAIP was included in the Master Plan, and is therefore consistent with it, the comment's proposal to relocate Runway 25L to the north would not address the need to reduce or eliminate runway incursions.

SAIP-PC00018 - 9

Comment: Suggestion: Expand aircraft volume and size somewhere else like the welcoming residence of Lancaster.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00018 - 10

Comment: Currently cargo takes off on the outboard runway especially at night, when it is safer for them to takeoff and certainly land on the inboard runway due to its 1000' longer. (25R = 12,090', 25L = 11,095')

Suggestion: So when it comes time to reconfiguring LAX we suggest if it has to accommodate A380, do so on the inboard.

The scuttlebutt around the crash crew is that Airbus is not as good an aircraft as Boeing, possibly due to too many countries building parts of the plane. (See Exhibit #2 Steering Geometry) Now they want to land a super larger problematic aircraft here...that is unsafe. (So why spend the valuable resources on a wasted project on a poorly designed plane)

Also, neither LAX Crash 80's nor any crash crew in the world can handle the 2nd story of the 747 (For Emergency Evacuation). Fortunately it is only a small portion of the aircraft, but there is no firefighting equipment presently made to properly handle the A380. This is a reason not to allow it into American airspace until that issue is overcome. Certainly not at LAX where it is so unwelcome by its neighbors. Unless anyone can explain why the A380 has to be on the south outboard runway, I say if you want it, waste your money on the inboard runway development.

Response: Cargo operations (departure of cargo aircraft) are dependent on airline/operator schedules not on traffic at the airfield. Cargo operations are independent of the time of day and "safety" of operations. Similarly, these type of operations, as with any operations, rely on runway availability and requirements to meet the stage length (distance to be traveled) and the performance of the equipment (aircraft).

The Airbus A-380 will have to go through a certification process with the FAA. This process is required for all new aircraft entering service in the U.S. Through this process, the FAA will verify the safety of the aircraft. As of publication of the SAIP Final EIR, this process has not begun; however, in anticipation of meeting the requirements of this certification process, the aircraft manufacturer is ensuring that all requirements are met and is closely working with the FAA.

Crash and Fire Rescue requirements are a part of the certification process and should be complied with before the aircraft operates commercially in the U.S.

In any case, none of these requirements will be affected by the SAIP.

SAIP-PC00019 Schneider, Denny None Provided 9/15/2005

SAIP-PC00019 - 1

Comment: The attached graph shows that using the first 7 months of aircraft operations the baseline estimate was excessive.

This applies to all environmental estimates. The baseline assumption of aircraft was faulty (high) for the 2005 estimate by a significant amount. This would make all calculations of impacts for subsequent periods appear less significant.

[Please see original document for graph.]

SAME CHART AS ROUNDTABLE
ADDED COMMENT SO THAT OTHER THAN NOISE IS ADDRESSED.

Response: The SAIP Draft EIR generally uses existing 2004 operations levels (derived, where necessary, from calendar year 2003 data) in the updated baselines to which the EIR compares all impacts. Use of those baselines in the SAIP Draft EIR's evaluation of construction-related (i.e., impacts directly resulting from construction, or indirectly resulting from changes in operations due to construction) is appropriate under CEQA, which provides that the environmental baseline used in an EIR will "normally" be the baseline existing at the time of publication of the Notice of Preparation for the EIR. (CEQA Guideline 15125(a).) See Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR.

SAIP-PC00020 Schneider, Dennis J. LAX/Community Noise Roundtable 9/15/2005

SAIP-PC00020 - 1

Comment: The LAX / Community Noise Roundtable discussed the SAIP last night and voted unanimously (LAWA representative abstained) to express our concern about the noise impact analysis presented in the subject DEIR.

The attached Powerpoint slides are submitted as comments/questions to be addressed before finalization of the DEIR.

Thank you for your consideration.

South Airfield Improvement Project (SAIP) Summary Comments re Noise LAX-Community Roundtable 9-14-2005

Review Objectives
Seek Positive Project Contribution
Restrict consideration to aircraft noise impacts
Provide substantial, summary comments that don't nit pick document errors

Response: The comment is noted. Please see Responses to Comments below.

SAIP-PC00020 - 2

Comment: General SAIP Comments
- Document difficult to read; convoluted and assumed facts contradictory.

Response: The content of this comment is similar to comment SAIP-PC00006-1; please refer to Response to Comment SAIP-PC00006-1.

SAIP-PC00020 - 3

Comment: - References topics and justifications in main Master Plan EIR without specifying specific locations.

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR. Please also see Response to Comment SAIP-PC00016-3.

SAIP-PC00020 - 4

Comment: - Poorly addresses El Segundo alternative review requests.

Response: Comment noted. Please see Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00020 - 5

Comment: - Fails to give basis for detail assumptions (if, when enumerated).

Response: The content of this comment is similar to comment SAIP-PC00006-3; please refer to Response to Comment SAIP-PC00006-3.

SAIP-PC00020 - 6

Comment: - Assumptions Contradict NASA-AIMES results.

Response: The comment is noted. Without reference to specific assumptions in both the SAIP Draft EIR and the LAX Runway Incursion Studies Phase III Center Taxiway Simulation conducted by Future Flight Central at the NASA-AMES research center, it is not possible to respond to this comment.

However, as stated on page I-2, Section 1.1.2, Environmental Review for the LAX Master Plan of the SAIP Draft EIR, the project would enhance airport safety and security. As stated in the Executive Summary of the LAX Runway Incursion Studies, Phase III – Center Taxiway Simulation report available at <http://www.simlabs.arc.nasa.gov/ffc/ftc.html>, and produced by HNTB Corporation and NASA Future Flight Central at the AMES research center, on page 2, the concept of a center taxiway would be effective in reducing runway incursions at LAX.

SAIP-PC00020 - 7

Comment: Summary Comments to Draft Environmental Impact Review (DEIR)
Assumed Aircraft Baseline affecting noise questions:
Number A/C take-offs/landings on specific runways not noted or justified - esp during construction.

Response: Section 4.5, Noise, of the SAIP Draft EIR addresses the construction noise impacts of the SAIP. This section also details the runway use assumptions for the baseline condition (2003). Specifically, Table 4.5-2 titled "Annual Runway Use: 2003 Baseline Conditions" details the split of arrivals and departures per runway and by time of day (day, evening and nighttime).

SAIP-PC00020 - 8

Comment: No detailed description of aircraft flow on taxiways during construction or upon completion.

Response: As described in Chapter 2 of the SAIP Draft EIR, the project will be built in several phases (see Exhibits 2-3 and 2-4). The first few phases are concentrated on the construction of the relocated Runway 25L and subsequent phases address the construction of the new center taxiway. It has been planned, in concert with LAX Airport Operations and the FAA LAX ATC that during the construction of the SAIP, certain portions of the airfield will remain open to aircraft traffic and be closed only for short periods of time. Even during the time while Runway 25L is closed for construction, Taxiways U, ST, G, and F will remain open for aircraft traffic. These taxiways provide vital connection between the Central Terminal Area and the facilities on the south of the Airport. Aircraft traffic flow during this period (Runway Construction Phases 1 through 6) would essentially remain unchanged except for landing and take-offs which would not be conducted on Runway 25L.

The latter stages of the first few phases of construction (Runway Construction Phases 4 and 5) gradually complete the construction of the runway and therefore close Taxiways U, ST, G, and F for aircraft traffic between Taxiway A and Runway 25R. At the end of Phase 5, the operations of the airport resume to current conditions. Taxiway A will be closed to allow the construction of exit taxiways to the south of Runway 25L.

Taxiway Construction Phases 1 through 6 would complete the construction of the center taxiway. During this period, several of the exit taxiway will be closed due to construction. At the request of ATC, not more than two exit taxiways will be closed at any time. While some of the construction includes taxiway ties onto Runway 25R, the project will be phase such that no more than one runway in the South Complex will be closed at any time. Consequently, aircraft taxi traffic patterns will vary in each construction phase.

After the construction of the SAIP is completed, aircraft traffic patters would change. All aircraft exiting Runway 25L would taxi onto the new Center Taxiway rather than holding and crossing Runway 25R. This is the primary change in aircraft traffic and was purposely devised to minimize runway incursions. All other taxi and aircraft operating patterns will remain unchanged after construction.

SAIP-PC00020 - 9

Comment: Noise impact basis not adequately documented:
- Types / Numbers or flight track changes
- Baseline artificially high -reduces proj impact.
- flight track changes required for construction?
- Topography or weather not addressed.

Response: The basis for aircraft noise impact results presented in Section 4.5 and Appendix M of the SAIP Draft EIR adequately document the number of flight tracks and type (arrival/departure). Appendix M (Section M.1.3) of the Draft EIR discusses all the key operation variables for the 2003 Baseline Condition. Information includes runway use, fleet mix, time of day distribution, flight track locations, and flight track utilization. Similar information is also available in Appendix M (subsection M.1.5) of the Draft EIR regarding Project (2005) conditions. Further detail regarding Project (2005) operation expectations are discussed in Appendix D and Appendix E of the LAX Master Plan.

Details and assumptions related to how runway use and flight track use patterns will change during the Runway 7R-25L closure is discussed in Appendix E of the Final LAX Master Plan, Section 4.5.6.1 of the SAIP Draft EIR and Appendix M (Section M.1.5) of the SAIP Draft EIR.

Operational patterns based on weather (visibility and ceiling conditions) are addressed in Appendix E (Section E.1.4.1) of the Final LAX Master Plan regarding Project (2005) conditions. Both West Flow (Runways 26 and 27 arrivals) and East Flow (Runways 06 and 07 arrivals) are included. This accounts for the availability of each flow due to wind speed and direction requirements. The analysis also includes visual (general indication: visibility at or greater than 3 miles and/or ceiling at or greater than 1,000 ft) meteorological and instrument (general indication: visibility less than 3 miles and/or ceiling less than 1,000 ft) meteorological weather conditions.

The FAA's Integrated Noise Model (INM) does in fact account for atmospheric absorption, empirical spreading, and lateral attenuation. Information about these functional algorithms and capabilities can be found in the INM User's Guide and Technical Manual. Moreover, the INM does allow for atmospheric conditions that reflect local conditions that are used as part of the algorithm calculations. Average annual weather variables (temperature, humidity, and air pressure) are also inputted into INM. These are the same variables used for the LAX Master Plan Final EIR analysis. The variables used are as follows:

- Temperature: 63 degrees Fahrenheit
- Humidity: 70 percent
- Air Pressure: 29.92 in-Hg (standard sea-level pressure)

As explained in Subtopical Response TR-N-3.5 of the LAX Master Plan Final EIR, while the elevation of an area directly under flight paths may result in a slight difference between the modeled noise level and that actually experienced in areas of large differences in elevation, the relative flatness of the land surrounding LAX provides little to no elevation effect. Consistent with the LAX Master Plan Final EIR and the reasoning mentioned above, topography is not included in the INM calculations.

Please refer to Topical Response TR-SAIP-GEN-1 regarding the environmental baseline used in the SAIP Draft EIR.

SAIP-PC00020 - 10

Comment: LAX AIR Ops 2005
[Please see original document for graph.]

Response: The content of this comment is essentially the same as comment SAIP-PC00019-1; please refer to Response to Comment SAIP-PC00019-1. Please also see Topical Response TR-SAIP-GEN-1 regarding the environmental baselines used in the SAIP Draft EIR.

SAIP-PC00020 - 11

Comment: Summary Comments to Draft Environmental Impact Review (DEIR)
Single event noise or increases in dB basis?

Response: The comment seems to question if single-event noise levels and impacts are addressed in the SAIP Draft EIR. Please refer to Section 4.5.2.2 regarding single-event impact analysis methodology; Section 4.5.4.1 regarding single-event thresholds of significance; and Section 4.5.6.1.4 regarding single-event noise impacts associated with SAIP construction on nighttime awakenings and classroom disruption. The history and evolution of the LAX single-event thresholds of significance is discussed in Appendix M (Section M.1.4) of the SAIP Draft EIR. Supplemental noise metrics and associated levels for noise-sensitive sites are made available in Appendix M (Section M.1.6).

Similar content regarding single-event noise levels and impact is available in Responses to Comments SAIP-PC00006-79 regarding classroom disruption thresholds and SAIP-AL00005-25 through SAIP-AL00005-29, SAIP-AL00005-71 through SAIP-AL00005-72, and SAIP-PC00006-82 regarding nighttime awakening thresholds.

SAIP-PC00020 - 12

Comment: Increased go-arounds due to construction

Response: Please see SAIP-PC0007-10 for a related response to missed approach procedures. During the period of time when Runway 25L is closed for construction, LAX will accommodate aircraft traffic with the remaining three runways. There is no evidence that this activity will result in a greater number of missed approaches and it is speculative to assume that will occur. In any case, missed approaches are a routine safety procedure.

SAIP-PC00020 - 13

Comment: Mitigation schemes limited
- During 26 month construction and especially 8 month closure assumes significant, unavoidable impact without any intermediate steps such as closing gates or requesting FAA temporary routes.
- Request LAWA ask FAA for temporary flight track changes to improve compatible land use affected and to minimize noise; balance runway use.

Response: As all gates at LAX are under lease by the airlines, gate closures would be at the discretion of the airlines. However, it is assumed that the airlines would continue to operate the gates they currently lease both during and after the construction of the SAIP.

There would be no need for a temporary or permanent change in flight arrival and departure procedures executed by the Southern California Air Route Traffic Control Center, the LAX Terminal Radar Approach Control facility or the LAX Air Traffic Control Tower to accommodate the closure of Runway 25L other than its removal as an available departure or arrival runway. The existing airspace would be able to accommodate the air traffic in and out of LAX both during and after construction.

Flight tracks are digital tracks of routes previously flown by aircraft in and out of a given terminal. Flight tracks cannot be changed after they have been flown as they are simple measures of aircraft location at a previous point in time. FAA Air Traffic Control always attempts to maintain a balanced airfield to maximize safety and efficiency at LAX and equalize controller workload and impacts. Both during and after construction of the SAIP, LAX Air Traffic Control will continue to operate the airfield in a safe, efficient and as balanced as possible manner.

SAIP-PC00020 - 14

Comment: Summary Comments to Draft Environmental Impact Review (DEIR)
Awakenings and school learning impact estimates:
- Insufficient Definition of noise required for awakenings or learning impairment

Response: Please see Responses to Comments SAIP-PC00006-79 and SAIP-PC00006-82 regarding the definition of nighttime awakenings and classroom disruption thresholds of significance. Please also see Responses to Comments SAIP-AL00005-25 through SAIP-AL00005-29 and SAIP-AL00005-71 through SAIP-AL00005-72 regarding nighttime awakenings threshold. A historical summary of how the thresholds were determined during the LAX Master Plan EIR process is discussed in Appendix M (Sections M.1.4.3 and M.1.4.4) of the SAIP Draft EIR. In summary, the best available science regarding nighttime awakenings and classroom disruption was reviewed and applied in determining the thresholds of significance.

Regarding classroom disruption impacts, the LAX Master Plan Mitigation Measure MM-LU-3 will involve a comprehensive study related to the relationship between aircraft noise and the ability of children to learn. An element of this study shall be a setting of an acceptable replacement threshold of significance for classroom disruption by both specific and sustained LAX aircraft noise events. The scope and process of this study has not yet been determined by LAWA.

SAIP-PC00020 - 15

Comment: Not all schools and churches in impact area identified.

Response: An update of all land use and noise-sensitive site information was conducted for the LAX Master Plan Final EIR. This information is also used to support noise impact analysis for the SAIP Draft EIR. The comment's reference to schools and churches (places of worship) excluded from the impact area is unclear, because specific facilities are not mentioned. LAWA works with the Airport Land Use Commission (ALUC) on a periodic basis to ensure all noise-sensitive uses are accounted. All requests made by ALUC have been updated in the SAIP Draft EIR geographic information system (GIS) dataset. Additional sites identified by ALUC during the SAIP Draft EIR review period will be added and updated in the Final EIR, where appropriate. Please refer to Response to Comment SAIP-PC00017-6 regarding the process used to identify noise-sensitive facilities and those that are impacted by aircraft noise during the SAIP construction period.

SAIP-PC00020 - 16

Comment: Added noise from start - stops of aircraft on taxiway?

Response: Please see Response to Comment SAIP-PC00010-9 regarding taxiway noise and its impact to surrounding communities.

The number of starts and stops on a taxiway occur most frequently during departure queuing (lining up on a taxiway for departure). This is evident when one compares the ground delay of an arrival versus a departure. As an example, please see Table V-F.4 of Appendix F of the Draft LAX Master Plan. The average all weather ground delay for 1996 Baseline Conditions (without cancellations) was calculated to be 1.3 minutes for arrivals and 6.5 minutes for departures. Most departure queues take place along the inboard runways (Runway 25R and 24L for west flow operations), where departures are conducted most frequently based on existing FAA ground movement procedures. Please refer to Figure II-2.13 of Section 2 of the Draft LAX Master Plan. This figure illustrates the taxiway location of departing aircraft in west flow conditions. For the south airfield, aircraft from the Central Terminal Area utilize Taxiway B and cargo aircraft from the south cargo complex utilize Taxiway A. For Runway 24R departures, aircraft utilize Taxiway E. Based on current observations, this procedure has not changed. Figure E-12 of Appendix E of the Final LAX Master Plan illustrates the expected taxiway flows for west flow during Project (2005) conditions. The assigned taxiways will remain the same compared to 2003 Baseline conditions. The utilization of the taxiways are expected to change due to the planned runway use changes addressed in Section 4.5.6.1.1 of the SAIP Draft EIR. As discussed in Appendix E (Section E.1.5.2) of the Final LAX Master Plan, delays are expected to increase during the three-runway condition. To control

the expected high taxi-out delays and longer departure queues, the FAA will need to institute a gate hold procedure. This will be needed in order to ensure that inbound flow (arriving aircraft) are not being interfered with outbound taxiway traffic. With the redistribution of traffic between south airfield and north airfield and a gate hold procedure during Project (2005) conditions, the frequency of start and stop of queuing aircraft is expected to increase, but cannot significantly increase without impacting inbound flows.

Please refer to Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-PC00020 - 17

Comment: Will noise impacts be measured and compared to predicted if monitors not in place? What procedural adjustments to aircraft operations will be made?

Response: Information from the airport's noise monitoring system and the aircraft operations monitoring system for tracking runway use, flight path utilization, daily distribution of flights, frequency of operations and noise measurements will continue to be collected throughout the term of the SAIP and beyond. As discussed in Section 4.5.5.1 of the SAIP Draft EIR, LAWA shall upgrade and expand its existing noise monitoring system. LAWA has selected a vendor, and is under contract negotiations. The existing system will stay on-line during the upgrade. In addition, LAWA will continue to develop quarterly noise reports, which are submitted to the California Department of Transportation in compliance of Title 21 of the California Airport Noise Regulations. The quarterly reports generated during the construction period will provide measured information that may be compared to calculated levels of the Draft EIR.

General assumptions related to airfield and air traffic procedures during SAIP construction are discussed in Section 4.5 (subsection 4.5.6.1.2) and Appendix M (subsection M.1.5) of the SAIP Draft EIR. Supporting technical data and analyses regarding aircraft operational procedures during construction is stated in Appendix D of the Final LAX Master Plan. During construction, existing noise abatement program procedures stated in Section 4.5.5.1 of the SAIP Draft EIR will continue during construction where feasible while Runway 7R-25L is closed and will also affect aircraft operations as specified in this section.

SAIP-PC00020 - 18

Comment: Conclusions
- Although modification of the south runway complex may be justifiable, the case has been poorly made if noise abatement is a basis.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-N-1 regarding off-airport noise impacts.

SAIP-PC00020 - 19

Comment: - Insufficient information on aircraft ground operations precludes any definitive comments.

Response: This response is a part of the "conclusions" summarizing comments SAIP-PC00020-1 through SAIP-PC00020-20. Please see Response to Comment SAIP-PC00020-19 for information regarding taxi and operating patters (ground operation procedures) associated with the SAIP.

SAIP-PC00020 - 20

Comment: - Insufficient information on aircraft flight path changes precludes our ability to provide project recommendations. BUT we know there will be substantial impacts - especially during construction. LAWA should ask the FAA for temporary flight track changes and define ways to balance the load between runway complexes.

Response: Comment noted. The content of this comment is similar to Comment SAIP-PC00020-13. Please see Response to Comment SAIP-PC00020-13.

SAIP-PC00021 Hamilton, Patricia None Provided 9/14/2005

SAIP-PC00021 - 1

Comment: PROJECT-LEVEL TIERED DRAFT ENVIRONMENTEL REPORT

South Airfield improvement Project Los Angeles International Airport (LAX)

We are all aware of the need here in Los Angeles for LAX to be upgraded, modernized and reconfigures for an even flow of people and baggage -- to move more efficiently and swiftly through the terminals -- this is essential. We all want to be proud of our airport and have our guests to the city-- feel welcome and comfortable on arrival and departure -- we want our airport to reflect the Creative City that Los Angeles is with it's beautiful natural setting know world wide -- right here overlooking the Pacific Ocean and all the attractions and businesses that people from around the world come to see and take part in.

I realize that LAX has listened to the concerns of the communities in Los Angeles and gone back to the drawing board to try to accommodate and refine the original beginning plans that date back 10 years now. We all want the plans to move forward - however -- there are still elements that have not been addressed and we must resolve all these matters - not to just push through and agenda-- this has been very difficult on all concerned as we are all aware of these facts.

I was very impressed with all the research and work involved in the 437 page report for --This Project Level Draft Environmental Impact Report (Draft EIR) south Air Field Improvement for the Los Angles International Airport . I also noticed in the separate Report a of the LAX Master Plan Stakeholders Forum 2, that a touch of Art has been added with the attractive renderings and color especially on Page 55. However many elements remain unknown as to the Environmental effects to our already established communities. Does the City of Los Angeles remember this is 87 neighboring Cities and unincorporated areas that the Airport impacts?

If this current plan is approved your looking at 5 to 6 years before the Project would be completed. That is far too long a time for the people of Los Angeles to have their lives impacted by all the dangerous pollutants filling the air we breath -- the Traffic congestion on all the streets especially the main artery of the 405 that is far too congested already. Then after all of that disruption to our lives just an extra runway on the airfield?

Response: Comment noted. The comment is incorrect in stating that the SAIP will not be completed for five to six years. The SAIP is anticipated to be completed in 2007. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00021 - 2

Comment: Under Item #1 Project Description #2.1

In this report the first reason for this enlargement was to continue to satisfy Regional demands for global air traffic passengers and cargo by adding new and optimizing existing facilities at LAX, along with distributing commercial service to essential to the LAX International Gateway role to other airports in the region.

Now your only referring to the Metropolitan Los Angeles? The County is growing and will continue to grow with essential business also branching out where the land is. The vision for Los Angeles should be on a larger scale for the future of the City and County.

At the same time infrastructure could be put in place so that the High speed rail Line those Global air Transport passengers could be right here in metropolitan Downtown Area in 20 minutes. People are accustomed to far greater waiting periods here at LAX. This should take place at the same time and we could then have three Gateways to Los Angeles as people are accustomed to all over the nation in any important area. Los Angeles city and county are certainly large enough to have three Gateways to look to with pride.

LAX does not have diversification as other cities have for Air Travel, we are behind the times especially now in the 21 Century. Just last weekend I was reading in our Los Angeles Times that as far as shipping is concerned:

WHAT HAS BEEN HEARD ON THE STREET:

Shipping Lines are looking for diversification -- that is sending goods to a variety of seaports instead of concentrating business in southern California. Bratz a doll maker's Isaac Laurien is among them Laurien Chief Executive Of MA Entertainment Inc. the small Van Co. has been bringing less merchandise through Los Angeles preferring the less congested Ports of Oakland and Seattle. Now this can also be said for the traveling public and the day is soon approaching. After all when you think about it Aircraft carries people and cargo and can also go anywhere there is an airfield to land.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00021 - 3

Comment: Construction - Related Measure

Page. 193
mm.A Q2
4.6.8

The MMRP and Section 4.6.8 of the LAX master Plan final EIR, the Master Plan consultants did not quantify potential - emissions reduction associated with all of the Mitigation measures that fall under MM-AQ2.

For the air Quality Analysis, it was assumed that these measures mitigation measures would be in place in 2005 --

Other feasible mitigation measures may be defined in the Final LAX M.P. MPAQ, which will be complete prior to implementation of the SAIP.

Response: The comment is noted. Regarding the quantification of mitigation measures, please see Response to Comment SAIP-AL00005-38.

SAIP-PC00021 - 4

Comment: The airport is located within the South Coast Air Basin in California a 6,600 sq. - mile area encompassing all of Orange county and non - desert portions of Los Angeles, Riverside and San Bernardino Counties.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00021 - 5

Comment: 4.3.3.2.2

Final guidance of implementation P.M. 2.5 ambient Air Quality Standards HAS NOT BEEN ISSUED ?

Response: As discussed in Section 4.3.3.2.2 of the SAIP Draft EIR, the South Coast Air Basin has been designated by the federal government as a nonattainment area for fine particulate matter (PM2.5). The exact attainment date for the South Coast Air Basin and implementation guidance for PM2.5 had not been issued by the U.S. Environmental Protection Agency at the time of publication of the SAIP Draft EIR.

SAIP-PC00021 - 6

Comment: 4.3.3.4.2

Carbon Monoxide was recorded in 1999 1 hr. concentrations 0.5 million (ppm)

Response: As discussed in Section 4.3.3.4.2 of the SAIP Draft EIR, the maximum recorded 1-hour concentration of carbon monoxide in 1999 was 10 parts per million.

SAIP-PC00021 - 7

Comment: CUMULATIVE IMPACTS

4.3.7

P.M. 10 concentrations are predicted to exceed the P.M 10 CAAQS and P.M. 2.5 concentrations are predicted to exceed the P.M. 2.5 CAAQS and NAAQS accordingly the project will have SIGNIFICANT IMPACTS with respect to both P.M. 10 and P.M. 2.5 concentrations.

Response: Section 4.3.7 of the SAIP Draft EIR provides a summary of potentially significant and unavoidable impacts to air quality. The commentor is correct that air pollutant concentrations from on-airport and construction-related sources when added to background concentrations would exceed the California Ambient Air Quality Standards (CAAQS) for particulate matter (PM10) and the National Ambient Air Quality Standards (NAAQS) and CAAQS for fine particulate matter (PM2.5). This is clearly disclosed in the body of the SAIP Draft EIR.

SAIP-PC00021 - 8

Comment: MITIGATION MEASURES

4.3.8

Construction -- related construction equipment during a second - Stage Smog Alert in the immediate vicinity of LAX. All these elements cannot be expected to remain in the airport boundaries. LAWA is committed to mitigate temporary airport related construction emissions -----
----- TO THE EXTENT POSSIBLE ?

THE SPECIFIC MEANS for implement the Mitigation Measure are in THE PROCESS OF BING FORMULATED AND WILL BE APPROVED PRIOR TO PROJECT IMPLEMENTATION ?

Response: Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. Please also see Response to Comment SAIP-AL00005-37 regarding the formulation of mitigation measures for the LAX Master Plan and its components including the SAIP.

LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP). The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. The MPAQ will be completed prior to the implementation of the SAIP.

SAIP-PC00021 - 9

Comment: DRAFT ENVIRONMENTAL IMPACT REPORT SOUTH AIRPORT IMPROVEMENT PROJECTS AT LOS ANGELES INTERNATIONAL AIRPORT

In this report LAWA is writing of a wide range of alternatives. Each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well and as operations-related activities.

On pg.13 this document states "Where additional mitigation is regard to address impacts specific to the SAIP new mitigation measures are evaluated and proposed for adoption as appropriate".

pg. 161 thru 164-4.3.1.1

POLLUTANTS OF INTEREST

Additional analysis completed since NOP was published has identified biotic communities (I noticed that they listed biotic communities before HUMAN HEALTH RISKS) and Human Health Risks as additional environmental resources requiring additional review. Stating in the report that each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well as operations - related activities.

1. Sulfur Dioxide(SO-2)
2. Carbon Monoxide(Co)
3. Particulate matter w/ aerodynamic diameter less than or equal to 10 micrometers (PM 10)
- 4.. Particulate matter w/ an aerodynamic diameter less than or equal to 2.5 micrometers (PM 25)
- 5.. Nitrogen Dioxide no. 2 and ozone
6. Lead was nor tested

The report gives a very weak excuse for not evaluating Lead Bp – Because of construction and ongoing airport operations. Lead is not considered in airport Air Quality analysis. AND Lead would have a negligible impact. Well how could they come up with this assumption if it hasn't even been tested.?

Physical Effects include:

1. Temporary Breathing impairment
2. Respiratory Illness
3. Aggravation of existing Cardiovascular Disease
4. Cancer and others too numerous to list at this time.

Response: The content of this comment is essentially the same as comment SAIP-PC00006-4; please refer to Response to Comment SAIP-PC00006-4.

SAIP-PC00021 - 10

Comment: SUMMERY OF POTENTIAL ENVIRONMENT IMPACTS

1. Hydrology/Water Risks

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00021 - 11

Comment: 2. Off - Airport - Surface Transportation would EXCEED the SIGNIFICANT thresholds the SIGNIFICANT thresholds for all ADULT residents for YOUNG CHILD THROUGH ADULTHOOD.
3. AIR QUALITY would EXCEED the SIGNIFICANT thresholds for all ADULT residents and for YOUNG CHILD THROUGH ADULTHOOD.

HUMAN HEALTH RISKS

Projects related incremental Cancer risk, compared with 2003 Baseline would be exposed to noise levels that would awaken there AT LEAST 10 nights.

Response: The comment is difficult to understand. For example, it suggests that off-airport surface transportation and air quality would exceed "significant thresholds" for adult residents and child through adulthood. However the analysis of off-airport surface transportation and air quality do not differentiate impacts in this manner. Only the analysis of health risks addresses impacts to "adult residents" and "adult plus child" separately. Further, the comment includes reference to incremental cancer risks and noise levels in the same sentence. The approach and findings of the human health risk assessment are summarized in Topical Response TR-SAIP-HRA-1. Details of the analysis are provided in Section 4.4 of the SAIP Draft EIR, with supporting technical data and analyses provided in Appendix L. With regard to the reference to noise impacts, please see Response to Comment SAIP-AL00005-25.

SAIP-PC00021 - 12

Comment: LAND USE

Effecting the county of Los Angeles, the city of Los Angeles and El Segued.

Response: The SAIP Draft EIR analyzes potential land use impacts of the project in Section 5.1.4.1. Short-term impacts on sensitive land uses within the County of Los Angeles, City of Los Angeles, and City of El Segundo due to either noise, traffic, views, or combined effects were identified as summarized below. Noise-sensitive uses in the County of Los Angeles and City of Los Angeles would be newly exposed to high noise levels primarily as a result of the closure of Runway 7R-25L under the SAIP. Although these construction-related noise impacts would be short-term (i.e., 8 to 12 months duration) they would be significant and therefore conflict with the respective general plan noise element policies. This conflict is discussed in detail in the LAX Master Plan Final EIR, primarily in Section 4.2. The potential noise conflicts would be mitigated by the various Master Plan commitments, mitigation measures, and other actions being taken by LAWA to address long-term operational noise impacts associated with implementation of the LAX Master Plan. While these measures were designed to address long-term operational aircraft noise impacts, the implementation of some of these measures during the SAIP construction period (such as acceleration of the current ANMP) would further address some of the noise-sensitive uses temporarily exposed to high noise levels during construction of the SAIP. Nonetheless, the SAIP Draft EIR conservatively concluded that short-term noise impacts during construction would remain potentially significant and unavoidable.

Regarding traffic, even with implementation of LAX Master Plan Commitments C-1, ST-9, ST-12, ST-14, ST-16, ST-17, ST-18, ST-21, and ST-22, the City of Los Angeles would experience a temporary significant traffic impact due to SAIP construction traffic at the intersection of Imperial Highway and I-105 eastbound ramps for approximately one month.

Within the City of El Segundo short-term aesthetic impacts from construction activities would be less than significant with the implementation of Master Plan Commitment DA-1, Provide and Maintain Airport Buffer Areas and Mitigation Measure MM-DA-1, Construction Fencing.

SAIP-PC00021 - 13

Comment: SCHOOLS

A healthy environment is essential to a child's growth in all ways. The human Health Risks and Noise that can not be avoided -- IS UNACCEPTABLE

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR and thus does not require a further response.

SAIP-PC00021 - 14

Comment: LAWA should concentrate on changing the terminals streamlining the process for passengers in the ticketing, baggage, fly Aways and parking.

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00021 - 15

Comment: Build airfields in Palmdale and Ontario where the LAND is with high speed rail connected to LAX.
- Have three Gateways to Los Angeles - after all the land in Palmdale and Ontario is owned by LAWA. Then all three airports could be major airfields for the world to see and experience. This could show the whole world the size and scope of our Vast, Wonderful and Creative City of Los Angeles. Then we could have a real Regional Solution to Airport Congestion that all the people and cities involved with the Future of AIRCRAFT are expecting. This is what is needed for the city to be ready for 2015.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00021 - 16

Comment: In the communities surrounding LAX we see the effects of Rack Lead Soot all over our home window sills, all the cement paved driveways and patio areas, businesses and recreation areas these are serous and SIGNIFICANT health Risks to all the communities surrounding LAX. With the gasses released from all the departures and arrivals of aircraft throughout the day, how can the people who live and contribute to the progress of thee nation remain healthy?

LAWA AIRPORT AIR QUALITY ANALYSES CONSIDERS THIS NEGLIGIBLE?

These are HARMFUL CHEMICAL SUBSTANCES that will only increase with the increased aircraft in the next years of construction SIGNIFICANT irreversible harm to the communities and the resources of LIFE --- that is ESSENTIAL to our LIFE.

Response: Deposition from aircraft was addressed in the LAX Master Plan Final EIR. As explained in that EIR, and summarized below, deposition of air pollutants occurs from many sources in urban areas, and aircraft contribution to deposition is indistinguishable from these other sources. For this reason, deposition was not addressed in the SAIP Draft EIR, the focus of which was on impacts that may not have been fully addressed in the LAX Master Plan Final EIR (please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR). Finally, lead is not a major constituent of turbine aircraft fuel (Shumway, L.A., "Trace Element and Polycyclic Aromatic Hydrocarbon Analyses of Jet Engine Fuels: Jet A, JP5, and JP8," Technical Report 1845, U.S. Navy, SPAWAR Systems Center, San Diego, CA. December 2000) and is not likely to contribute to lead concentrations in the area. Lead impacts were briefly discussed in the LAX Master Plan Final EIR, Section 4.24.1.4.2. In fact, lead concentrations in the area have declined dramatically since the phase out of lead in motor vehicle gasoline despite the continued growth in population, motor vehicle travel, and aircraft flights. (Measured lead concentrations from 1990 to 2002 at selected monitoring sites in Southern California can be obtained from CARB online at <http://www.arb.ca.gov/adam/toxics/sitelists/pbsites.html>.)

As explained in Topical Response TR-AQ-1 in the LAX Master Plan Final EIR, the term "deposition" refers to the gravitational fallout of material (both solid and liquid) from the atmosphere. Commonly,

this material, called particulate matter, consists of dust and soot that can form deposits or cause discoloration on outdoor surfaces (i.e., building materials, motor vehicles, small water bodies, etc.).

In most urban areas (including the South Coast Air Basin), the sources of atmospheric deposition are numerous and varied. Typical sources include motor vehicles (including the exhaust emissions and the entrainment of dust from paved and unpaved roadways by the action of vehicle tires on these surfaces) and other forms of transportation (i.e., ships, trains, planes); factories, power plants and manufacturing facilities; and construction projects. Wind blown dust from distant agricultural activities and miscellaneous natural sources (e.g., deserts, forest fires, marine spray, etc.) also contribute. In the case of marine spray, wave action results in the formation of bubbles rising and bursting at the water surface. As the bubbles burst, small droplets with dissolved organics may be ejected into the air and carried by the wind.

While it is difficult to estimate with any accuracy the amount of deposition from specific sources due to large uncertainties, it is reasonable to state that urban aerosols are dominated by emissions from human activities.

Three studies have recently been undertaken to evaluate the deposition of soot, dust and other airborne particulate matter in the vicinities of large metropolitan airports - including LAX. The studies are very limited and are preliminary, but provide a basis for understanding the current state of knowledge on this topic.

-Boston-Logan -The first of these studies took place in and near Logan International Airport and involved the collection of atmospheric fallout at multiple sites located both on the airport and in nearby communities (Massport, 1996, Logan Airport Soot Deposition Study, prepared by KM Chng.; Massport 1997, Soot Deposition Study: Logan Airport & Surrounding Communities, prepared by TRC Environmental). Chemical analyses of the samples were also conducted in an attempt to identify the source(s) of the material. The findings suggest that deposition in the vicinity of Logan International Airport results from the combined effects of many urban-related sources (including motor vehicles, marine aerosols and wind blown dust) and that the contribution from the airport is indistinguishable from background levels.

-Chicago-O'Hare - A similar study was conducted in the vicinity of O'Hare International Airport involving the collection of soot/particulate matter and "chemical fingerprinting" of the material (City of Chicago, 1999, Findings Regarding Source Contribution to Soot Deposition, O'Hare International Airport and Surrounding Communities, prepared by KM Chng). The results indicate that the samples bore little resemblance to either unburned jet fuel or soot from jet exhaust and concluded that the fallout is most likely from regional pollution (i.e., unattributable to distinct sources).

-LAX - Air monitoring studies were also performed in the vicinity of LAX by the South Coast Air Quality Management District (SCAQMD): "Air Monitoring Study in the Area of Los Angeles International Airport" and "Inglewood Particulate Fallout Study Under and Near the Flight Path to Los Angeles International Airport." For these studies, samples of atmospheric fallout were collected adjacent to the airport and at numerous residences located in the communities of El Segundo, Inglewood, Lennox, and Hawthorne. While soot particles were present in all the samples and generally in greater abundance than at other locations in the South Coast Air Basin, the studies concluded that there was "no discernable pattern of fallout material under LAX's flight path which would indicate a predominate influence from aircraft." A study commissioned by LAWA in 1998 that collected and evaluated atmospheric deposition samples at six sites surrounding LAX arrived at similar conclusions (LAWA, 1998, Technical Report Deposition Monitoring, prepared by Camp Dresser & McKee/Planning Consultants Research/AeroVironment Environmental Services (Technical Report 4, Attachment Y of the LAX Master Plan Final EIR).

From all of these studies, it is reasonable to assume that atmospheric deposition of soot, dust and other forms of particulate matter occurs in measurable quantities in the vicinities of these large metropolitan airports. However, because air pollution in urban areas is generated by many different sources (both natural and man-made) and because many of the constituents are petroleum-based (e.g., burned and unburned fossil fuels), it is difficult to isolate and attribute the full impact of airports and aircraft on atmospheric deposition in urban areas.

The impacts of toxic air contaminants on human health are addressed in Section 4.4 of the SAIP Draft EIR. Contrary to the commentor's statement that the Draft EIR considers these risks to be

negligible, as indicated in Section 4.4.9, health risks associated with the SAIP are considered to be significant and unavoidable.

SAIP-PC00021 - 17

Comment: NOISE

MM-LU 3

CONDUCT STUDY OF THE RELATIONSHIP BETWEEN AIRCRAFT NOISE AND THE ABILITY OF CHILDREN TO LEARN

This study definitely flawed as it was determined that two thresholds of significance should be based on the 1992 Federal Interagency Committee on Noise (FICON) This in turn places another cement runway in front of the most important investment that any city has that is the children's learning abilities, the possible future leaders of the nation second.

Children in their fragile growing years need stability and protection from harsh environment in order to develop to the fullest of their ability. They should not be bombarded in their years by constant interruptions of their lessons from the deafening noise of aircraft overhead and dangerous chemical fumes.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP.

LAX Master Plan Mitigation Measure MM-LU-3 calls for a scientific study of the relationship between aircraft noise levels and the ability for children to learn. This study has not yet been initiated. The methodology used to determine the relationship between levels of noise and children's ability to learn will be one of the first elements to be developed by educational and psychoacoustical specialists retained by LAWA to conduct the study. Another element of this study shall be the setting of an acceptable replacement threshold of significance for classroom disruption by both specific and sustained aircraft noise events. Effective means that are considered feasible to mitigate findings of impact from this study may also be included in this study. The specific schools selected for inclusion in the study will likely be selected from among those now impacted by aircraft noise and those that are not known to be adversely effected by aircraft noise. Such a study of the effects of aircraft noise levels on classroom learning may also include, as a comparison, noise levels at schools located at a distance from LAX that are unaffected by aircraft noise impacts. The methodology for selecting experts and peer reviewers has not been established. The specific schools selected for inclusion in the study will likely be selected from among those now impacted by aircraft noise and those that are not known, to be adversely affected by aircraft noise. Any assessment or determination of participating schools as not yet been determined.

SAIP-PC00021 - 18

Comment: FAA RECORD OF DECISION

How could the FAA conclude that ALT D. has the least adverse environmental effects and is the most responsive to public comment? With the health risks of surrounding projections if 1,400 people will be diagnosed with Cancer - caused deaths and all the adverse results of chemical exposures listed. What about the increased air traffic on the north side that will compound the problem of all the TOXIC elements in the air that we breath to keep alive?

pg. 53

According to the Environmental Report the north side at this time will be DRASTICALLY EFFECTED.

So are we supposed to forget about sleep,noise and the polluted air that we breath for at 0e very least one year and all the negative Health EFFECTS associated with this exposure? - THIS IS NOT ACCEPTABLE -

Response: The comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP, or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-PC00021 - 19

Comment: HEALTH RISK ASSESSMENT

1.3.4
1.3.4.1

IMPACTS

Consistent with the results of the LAX masher Plan Final EIR, Risks to HUMAN HEALTH from SAP are attributed to emissions of 1.,3 BUTADIENE, ACROLEIN,BENZENE, AND and FROMALDEHYDE from aircraft as well as DIESEL PARTICULATES from trucks and construction equipment. --- Why leave out the jet fuel? --

Response: Jet fuel evaporation was addressed in the LAX Master Plan Final EIR (see Topical Response TR-AQ-2 in the LAX Master Plan Final EIR). As explained in that topical response, and summarized below, evaporation of jet fuel will have negligible impact on human health risk related to toxic air contaminants. For this reason, jet fuel evaporation was not addressed in the SAIP Draft EIR, the focus of which was on impacts that may not have been fully addressed in the LAX Master Plan Final EIR (please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the Master Plan EIR).

As explained in Topical Response TR-AQ-2 in the LAX Master Plan Final EIR, the California Air Resources Board (ARB) has developed numerous profiles for various emission sources and has developed one specifically for jet fuel evaporation - Profile 100. This profile includes the following compounds that account for all chemical species comprising jet fuel evaporation: n-heptane (0.1 percent), n-octane (0.5 percent), n-nonane (4.7 percent), n-decane (19.6 percent), n-undecane (20.3 percent), n-dodecane (18.2 percent), n-tridecane (17.7 percent), n-tetradecane (11.7 percent), and n-pentadecane (7.2 percent). These compounds are not on either the California Office of Environmental Health Hazard Assessment (OEHHA) Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values or the U.S. EPA Hazardous Air Pollutant List in Section 112[b][2] of the Clean Air Act. Therefore, jet fuel evaporation was determined to have a negligible impact on the human health risk assessment presented in the SAIP Draft EIR.

SAIP-PC00021 - 20

Comment: With implementation of the SAP, in 2005, the airport would result in SIGNIFICANT incremental Cancer Risks CHRONIC and Acute Health Hazards to all receptor types compared to 2003 Baseline conditions.

SAP HUMAN HEALTH IMPACTS ARE GREATER THAN PREVIOUSLY REPORTED FOR THE LAX MASTER PLAN

Response: Comment noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR and thus does not require a further response.

The commentor is correct that health impacts estimated for the SAIP are greater than those reported in LAX Master Plan EIR. Please see Topical Response TR-SAIP-HRA-1 for an explanation of these differences.

SAIP-PC00021 - 21

Comment: PROJECT ALTERNATIVES

The plans for building of the new runway on the south side of the airport does not conform with the impact that should be considered to the communities surround the airport and beyond within the City and County of Los Angeles.

As stated in 2.5 accordingly, this document des not reevaluate the project alternatives however reading all the 473 pages I find too many unknowns - assumptions and a lack of completion of this important project

Response: Please see Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR and Topical Response TR-SAIP-ALT-1 regarding the range of alternatives analyzed in the SAIP Draft EIR.

SAIP-PC00021 - 22

Comment: LAX WAS BUILT PRIOR TO THE ESTABLISHMENT OF THE FAA CURRENT DESIGN STANDARDS FOR AIRPORT SERVING LARGE COMMERCIAL JETS. FOR THIS REASON, NOT ALL, THE SAFETY AREAS AMD SAFETY ZONES SURROUNDINGS THE FOUR RUNWAYS UNIVERSALLY MEET TODAY'S RECOMMENDED DIMENSIONS FOR NEW AIRPORT DEVELOPMENT.

Response: The comment is noted. The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00021 - 23

Comment: pg. 57 -2.7.2

FEDERAL ACTIONS
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION (FAA)

A Determination that Development is reasonably necessary for use in Air Commerce or in the Interest of National Defense

Reasonably necessary -- Actually pertaining to National Defense, Security and Safety to build all new runways in Palmdale and Ontario would be to our benefit as in an emergency we would need more Diversity in Airfields. Pertaining to Air Commerce -- All of southern California Commerce will be severely IMPAIRED if we do not build more air runways in other areas, the diversity is not here as yet nothing is CONNECTED. The infrastructure should already in place with these connections from LAX,Palmdale and Ontario. Arizona and Nevada already have -- NEW STAT of THE ART AIRPORTS -- JUST WAITING FOR OUR COMMERCE. THESE STATES ARE ALREADY ANTICIPATING THIS DECISION FROM COMMERCE WORLDWIDE.

JUST WAITING FOR OUR COMMERCE. THESE STATES ARE ALREADY ANTICIPATING THIS DECISION FROM COMMERCE WORLDWIDE.

IT'S ONLY JUST A MATTER OF TIME

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00022

Garnholz, Liz

El Segundo Aviation-Safety and
Noise-Abatement Committee

9/14/2005

SAIP-PC00022 - 1

Comment: The El Segundo Aviation Safety and Noise-Abatement Committee (ES-ASNAC) appreciates the opportunity to comment on the above-mentioned document. The following comments and reactions are meant as guidance for the City and Federal Lead Agencies to be incorporated in the Final Impact Statement/Environmental Impact Report.

Pursuant to the Public Resources Code S21092.5, please provide the ES-ASNAC with written responses to all comments contained herein before the certification of the Final Environmental Impact Report. ES-ASNAC would be happy to work with the Lead Agency to address the issues raised and any other questions that may arise.

Response: In accordance with the provisions of CEQA, LAWA has prepared written responses to all comments received on the SAIP Draft EIR. These responses are provided herein as part of this Final EIR. Please also see the Introduction to these Responses to Comments for a further explanation of this process.

SAIP-PC00022 - 2

Comment: Comments of the El Segundo Aviation Safety and Noise-Abatement Committee Re: The Project Level Tiered Draft Environmental Impact Report for South Airfield Improvement Project, Los Angeles International Airport (LAX).
- Key Points are bulleted!

Seventeen findings of Negative and Significant but Unavoidable Impacts (with mostly unsatisfying mitigations proposed), coupled with a controversial proposal to add a central taxiway between South Airfield Runways, does not justify moving and outer-runway closer to off-airport residences, thus amplifying airport negative impacts. If runway 25L is in poor repair, fix it in place as a qualitative not quantitative improvement.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. This comment generally does not address the potential environmental impacts of the SAIP or the legal adequacy of the SAIP Draft EIR. Rather it questions the policy decision of LAWA in selecting and pursuing the SAIP. That decision was made during the development, consideration, analysis and adoption of the LAX Master Plan and the LAX Master Plan Final EIR. Thus, to the extent this is a comment on the decision to pursue the SAIP, it is a comment on the LAX Master Plan and the LAX Master Plan Final EIR, therefore no further response is required here.

SAIP-PC00022 - 3

Comment: Then, develop Palmdale's 17,750-acres to accommodate new heavier aircraft with significantly less impact than at LAX.

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00022 - 4

Comment: The economic foundation of the Hahn Master Plan "D" was based on three fallacious assumptions: 1. "traffic routes will remain constant", 2. "passenger-and-fleet mixes will remain constant", 3.

"technology of terrestrial transportation will remain constant". If LAWA, the LAX staff, and Airlines pilots operated totally in accord with adopted operations policies and recommendations, airfield incursions and off-airport neighbor-complaints would be minimized and neighbors' quality-of-life could continue to improve.

Response: The comment does not raise an issue regarding the contents or adequacy of the SAIP Draft EIR, and thus does not require a further response.

SAIP-PC00022 - 5

Comment:

- 17 Significant Unavoidable Impacts invalidate the Project proposal!
- Fix/modify/improve/adjust the airport qualitatively, not quantitatively. "More is not better!"
- Operate entirely within adopted operations policies and recommendations!

Response: The comment is noted. Please see Responses to Comments SAIP-PC00022-2 through SAIP-PC00022-4 above. As explained in Response to Comment SAIP-PC00006-16, under CEQA, a project can be approved despite significant, unavoidable impacts. If a project would result in one or more significant effects on the environment that cannot be avoided or substantially lessened if the project is approved or carried out, the agency must prepare a written statement of overriding considerations. Specific economic, legal, social, technological or other project benefits are all potential bases for a statement of overriding considerations. See Pub. Res. Code § 21081(b); CEQA Guideline 15093(a). Accordingly, projects are regularly approved on the basis of policy considerations despite unmitigated environmental effects. See, e.g., *San Francisco Ecology Center v. City & County of San Francisco*, 48 Cal. App. 3d 584, 596-97 (1975) (goals of making international airport more convenient, safe, efficient, and quiet were valid overriding considerations).

SAIP-PC00022 - 6

Comment: Expanding (shoulder-width) the southernmost runway (25L), and moving it 55' closer to El Segundo would threaten the quality-of-life of most El Segundo residents. The Master Plan says all four runways are currently suited to handle aircraft up to 900,000 lbs. (A loaded A380 weighs 1.24-million pounds.) Redoing 25L (to 19" -depth concrete and broad shoulders) would make it the only runway specifically suited to handling the loaded A380.

Response: Runway 25L is currently capable of accommodating the A-380 in terms of its dimensional requirements (runway width) and loading. Operations of NLA on the proposed center taxiway would be restricted since the separation distance between the centerline taxiway and the adjacent runways does not meet the recommended separation for this type of aircraft.

Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft.

SAIP-PC00022 - 7

Comment: Figure F4.2-28 for "D" in the Lax Master Plan Final EIR (using Year-2000 fleet-mix) shows fewer homes exposed to aircraft noise of 65 CNEL or greater in 2015. If modeling included the A380's in addition to the current mix, it should have show a significant increase despite the gradual quieting of individual engines. Graphics used for Figures S4.2-2,-4,-13,-16 and -17 indicate Alternative D data was essentially the same as for Alternatives C and NA/NP (i.e. no move of the runway). Why would noise generated in "C" or "NA/NP" indicate greater El Segundo residence impact than for "D"? In Figure S4.2-17, the 1.5dB increase-contour should have influenced subsequent noise-contours. 2015 Operations-numbers and runway locations were probably the same for all Alternatives. FOUL!! The Master Plan suggests that if we move the runway closer to El Segundo, and add more heavy planes, we'll get less noise than if we do nothing. Of major impact-determination significance, fleet-mix used in calculations for Year 2015 is based on projections using current fleet-mix figures (Average Annual Day Operations and Fleet Mix Alternative D [Master Plan EIS/R Appendix C Table S7 et al]), and lists 44 planes, but no A340-600's, A350's or A380's. After SAIP construction, the not-counted giant-planes would skew impact results heavily, i.e. anticipated 11-12 A380 daily flights [22-24 TOAL's] (each up to 8 times as much single-event noise as an average

B757) all using runway 25L makes the neighbors' plight intolerable. TakeOff noise is of greatest concern to El Segundo, while Approach-noise maximally affects the communities east of the airport. The B747 fleet lists TO dBA's from 80 to 100.5 dBA's, while the A300 fleet TO dBA's range in the upper 70's until reaching the A350 and A380. LAX A380 single-event nighttime awakenings and classroom disruptions would be horrendous.

Note: Singapore [2/day], Qantas [3/day], Air France, Virgin, Korean, Malaysian, Lufthansa, and Federal Express A380 Airbuses (35% larger with 49% more floor-space than the biggest 413-seat 747) plan to use LAX. UPS, currently using Ontario Airport, has also ordered A380's. Does that mean that LAWA must soon upgrade Ontario facilities to accommodate the A380? Airbus developers project a call for 1,902 jumbo aircraft in the next 20 years. The \$235-million A380 (240' vs 747's 232', 555-800 passengers, range 9,200-miles, cost \$5.3-billion to develop). Its wingspan is 262-feet (vs B747's 212') and taxi-weight will reach 1.3-million pounds (vs B747's 875,000). It's dubbed the "world's first Flying-Hotel, a cruise-ship in the sky", and may feature a duty-free shop, sit-down restaurant, some enclosed staterooms (each with bed and shower), a bar (and perhaps a casino), and a gym in addition to its projected 555 passenger-seats and 55 crew-seats. Tail-height is seven stories. Eighteen door-emergency slides have friction material to slow the sliders. Cathay-Pacific's 3-Hong Kong flights per week, currently use remote terminals or one of the two Bradley gates for an A340-600 (15' longer than the biggest 747) but require new taxiway, gate, and jetway construction which can accommodate them. Virgin Atlantic, South African, and Iberia Airlines also use A340-600's.

- Only modify/improve a runway if all runways are to be brought to the same standard!
- Re-emphasize the guidelines for flying heaviest/loudest aircraft using inboard runways!
- Avoid expanding negative impacts by avoiding relocating facilities closer to off-campus residences!
- Recalculate/redraw 2015 noise contour projections using latest fleet-mix/TOAL projections/expectations!
- Accept that Airbus A380 accommodations may belong at Palmdale Regional Airport - not LAX!

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need for the SAIP. As disclosed in that topical response, the SAIP is not intended to allow new large aircraft to use the south airfield of LAX. Please also see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to SAIP.

The majority of the comment pertains to the overall LAX Master Plan and the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004. Please see Topical Response TR-SAIP-PD-2 regarding the relationship between the SAIP tiered EIR and the LAX Master Plan Final EIR.

SAIP-PC00022 - 8

Comment: The Plan justifies runway relocation by claiming "additional separation between 25L and 25R will enhance safety", but it then proposes a center taxiway between the runways (to minimize potential incursions). There is no indication of previous incursions (without central taxiing) being of a "Class-A" near-miss description. A center-taxiway adds twenty-five new taxiway-centerline intersections (potential collision-points) to the current 48 runway/taxiway intersections layout. Safety is not enhanced by adding potential collision points. The vast majority of incursions of the past decade have been caused by communications-breakdowns or pilot-or-controller error. Adding new intersections will only increase potential for errors and breakdowns. (None of the earlier Plan-Alternatives proposed center-taxiways. Were they to be developed "unsafe"?) The DEIR claims moving the runway is necessary "to meet the FAA required centerline spacing of the new taxiway ... providing a runway-to-taxiway centerline spacing of 400' to both 25L and 25R." With the 262' wingspan of the A380, we'll have a new "unsafe condition" if a plane is on taxiway when a big one comes in. Given the introduction of the A380, it would be safer to leave the runways spaced 745' apart as at present, eliminate the proposed center taxiway, and reinforce the stopping points on the crossing-taxiways by installing above-ground laser stop-lines. Pilots who won't listen, or controllers who make bad calls, will not be corrected by adding additional confusion and more stop-points to the layout. In fact, in the name of safety, some crossing-taxiways should be eliminated (even if it adds a mile or a minute to the taxiing plane route).

Note: In instructions to the NASA Team which studied and supported the proposal for center-taxiway, LAWA said "most common runway incursions occurred when an aircraft arriving on Runway 25L exits at one the high-speed exits, and then fails to stop before overshooting the hold-short bars for Runway 25R. The intent of the center taxiway concept is to force aircraft to turn onto a parallel center taxiway, thus eliminating the "straight shot" to Runway 25R that exists on the current high-speed exits." Instructions failed to note that high-speed might have made it difficult to stop in time. But now, the length of the High-Speed Exits, runway-to-taxiway would be half the distance to former stop-bars. Perhaps, inserting a new taxiway (another turn or intersection point) closer to the landing-runway would increase rather than decrease potential accidents. Reviewing LAWA's several "taxiway studies", the study process regularly goes from safety considerations to discussions of minimizing delays. \$ talk!

- Proposed center-taxiway adds collision-points and will not address/correct a problem of incursions!
- Reinforce/install Stop-Bars (paved-lines and R/W guard lights with above-ground lasers to reduce incursions.
- No additional separation of 25L from 25R is necessary or desirable.
- Direct "heavies" to use inboard runways whenever possible.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP. Please also see Response to Comment SAIP-PC00007-9.

SAIP-PC00022 - 9

Comment: A relocated/rebuilt runway would accommodate heavier planes not-now accepted at LAX and - favored by southside-located cargo operations - add more noise (bigger, more-frequent planes in closer proximity to homes) and more-offensive-noise (cargo nighttime operations). LAWA says "LAX will be able to handle the A380 in late 2006, and then more A380 operations than any other facility in the world." (DB 5/18/04, LAT 5/19/02 & 1/17/05, Pop-Mech 3/01) Will LAWA seek waivers (which could further extend the airport into a "catastrophe waiting to happen" class?) Currently the A380 is too tall, heavy, or with too large a wingspan to use two of LAX's runways, almost all boarding gates, and many taxiways. Short-term plans would adapt six existing gates to Tom Bradley, Terminal 2, and remote west-end terminals, expand boarding-lounges; and widen taxiway and runway shoulders. FAA has already granted conditional approval of those plans. Eight airlines have announced plans to fly in and out of LAX. The 380's certified capacity is 1,000 passengers. Fire-Department Crash-Units claim "Airbus products have too much variation in hardware, which can hamper safe rescue operations". Current equipment cannot safely handle the 2nd level bubble of the 747's, and would most certainly threaten the full upper floor of the A380's (Airport firefighters will have to double the length of their ladders [and hoses] to reach doors on the second deck.) FAA regulations call for a 30% widening of most taxiways and runways to accommodate. A380 engines can transport the weight of 37-MTA buses (560-tons). The freighter version will have three decks and carry 152 tons of cargo as far as 6,445 miles. SAIP does not show plans (or expenses) to re-equip LAX crash units (or surrounding community units), nor to develop new methods to service the huge plane with fuel (with two pumps, the 81,890-gallon tanks would take 45-minutes to fill) and food or unload trash and thousands of gallons of waste. If two A380s parked side by side at existing LAX gates, their wings would touch. Apron space is a problem, as it's handling twice the luggage, meals, and trash as the 747. The 380 cannot share taxiways with other planes. In 2002, Airbus said LAX's longest runway would be adequate in length. Terminals must be modified to allow jetways to connect to both decks. (Typically it takes 11-years, from design to construction, to create airport facilities.) The U.S. General Accounting Office estimates it will cost \$1.2-billion for LAX to accommodate the A380. Airbus says it shouldn't cost LAX more than perhaps \$177-million. The (190-passenger) Boeing 757 requires 80,000 pounds of thrust. The A380, despite requiring four engines at 75,000 pounds of thrust each, will burn 20% less fuel than the 747-400 (lowering operation costs by 17% - or 30% for freight operators) based on in-flight (not taxi, takeoff, or landing) conditions (and require a minimum 3,000-mile flight to be validated). Taxi, takeoff, and landing are the times of maximum impact. The four big engines will probably rival the now-defunct Concorde for noise and emissions. In its era, Concorde was five-times more noisy, and more polluting, than any other plane at major airports. Seventy-six percent of the noise generated on 25L is from the heaviest jets in the fleet.

- Drop the race to be biggest! Redevelop quality not quantity!
- Shift plans for LAX to accommodate A380 to allow a new draw to Palmdale Regional!

- At least withhold A380 access until LAX can safely accommodate (re crash-units) using inboard runways!
- Move major noise-maker operations to inboard runways!

Response: The comment is noted. The comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP, or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR because the CEQA review process for the LAX Master Plan was completed in December 2004. Nonetheless, please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP.

SAIP-PC00022 - 10

Comment: Funding for detailed planning should not proceed before conceptual plans and impact-mitigations are approved. LAWA ordered detailed designs without waiting for approvals or mitigation analyses for current projects. Revamping Bradley Terminal @ \$225-million was funded by bonds repaid by airport revenues, and was another example of incremental expansion. The current South Airfield Project will modify facilities to accommodate (bigger and louder) A380's. Major land-acquisitions like Manchester Square are not in the baselines, but don't belong in the accommodations-process. -Avoid contract commitments before achieving plan approvals and adopting clear effective impact mitigations.

Response: Please see Response to Comment SAIP-PC00006-7.

SAIP-PC00022 - 11

Comment: In the SAIP DEIR Chapter 1, Section 1.4, we read "Safety is the primary consideration." Obviously, then, it behooves LAWA to avoid any possibility of expanded capacity - for "double the people and cargo" yields "double the risk and danger." Yet, Chapter 2, Section 2.1, states "it is crucial that LAX is capable of accommodating the A380." Handling the A380 in a small airport goes against "safety" considerations. "Double the passengers ..."

Response: The comment is noted. The comment pertains to the overall LAX Master Plan and/or the LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP, or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR because the CEQA review process for the LAX Master Plan was completed in December 2004. Nonetheless, please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft and Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP.

SAIP-PC00022 - 12

Comment: Why not include the big bus in plans for Ontario instead? Or even better, to minimize risk and impact, accommodate at Palmdale (where the airfield is 17,000 acres rather than 3,500).

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00022 - 13

Comment: Primary constraint on the airport's practical capacity is the "limited curbside capacity of the CTA at

peak hour." Then, encouraging access by GreenLine, or increasing outlying "flyaway" terminals, reduces constraints and yields increased-capacity. Similarly, "after SAIP, the practical capacity will be the same" based on constraints "created by reducing the number of aircraft gates." Referring to the Tom Bradley (TBIT) to make its point, DEIR states (with new security systems installed) "TBIT will be able to accommodate 15 fewer passengers at its modified gates." Yet, gates will be modified to accommodate the double-decked larger-capacity A380. Doubletalk?

Response: Please see Topical Response TR-SAIP-PD-3 regarding airport capacity and operations as related to the SAIP and Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP project. The comment pertains to the overall LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP or therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR, because the CEQA review process for the LAX Master Plan was completed in December 2004.

SAIP-PC00022 - 14

Comment: Section 2.6 states "Airfield configurations were designed at a precise level of detail to satisfy FAA requirements related to airport layout plans." Well, how did a plan to move the runway south get by while there are "structures in the Runway Protection Zone" at the west end? (Altered FAA reg's just for this move? ..or out-of-towners don't count?)

Response: The statement made in Section 2.6 of the SAIP Draft EIR regarding the development of the SAIP and its adherence to FAA airfield layouts does also apply to the location and size of the Runway Protection Zones (RPZ). The west RPZ for Runway 7R/25L currently encompasses a portion (i.e., northern tip) of an existing apartment building in the City of El Segundo. This condition would still remain with the proposed SAIP.

As reported in the Record of Decision (ROD) for the Proposed LAX Master Plan Improvements, dated May 20, 2005 (page 11), the FAA, in the review of, and approval process for, the LAX Master Plan, provided Airspace Determinations to assess land use compatibility within the airport environs, which includes existing structures near the airport. In the ROD, the FAA also granted Unconditional Approval to the Airport Layout Plan (ALP) for all airside improvements associated with the LAX Master Plan, which includes runway and taxiway improvements proposed under the SAIP. Included as Figure 1 of the ROD, the ALP depicts the location and dimensions of all Runway Protection Zones (RPZs) against current topographic background, including structures. The FAA unconditional approval of the ALP signifies adherence to all applicable FAA requirements. The currently proposed SAIP is consistent with the approved ALP, and would not result in any changes to, or redefinition of, the existing RPZs or designated clear zones. (See Section IV, Item 1 of the FAA ROD.)

SAIP-PC00022 - 15

Comment: The DEIR Section 2.7.2 states "No impacts on wetlands would result from the SAIP." Yet, Section 5.4.3.1 states 1,853 s.f. of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp will be permanently converted "for construction staging, airfield ops and maintenance activities or airfield improvements" ... In addition, activities have potential to indirectly affect 1.26 acres of other degraded wetland habitat ... with an additional 23 acres of ephemerally wetted areas threatened, and another 108 acres identified as "critical habitat" within the Airfield Operations Area. The report concludes "Further consideration of critical habitat for the Riverside fairy shrimp at LAX is not required" because FWS now excludes the areas from "critical habitat" designation (based on "elements for shrimp to complete its life cycle are not met at LAX"). In April '05 (LAT 4/13/05), LAWA promised once again to move 468 tons of soil containing the shrimp by this month (September). Where's the action?

Response: Sections 5.4.3.1 and 5.5.3.1 disclose impacts to wetlands from all activities identified in the LAX Master Plan Final EIR. These impacts would result from LAX Master Plan projects not associated with the SAIP. As discussed in Section 5.5, Wetlands (subsection 5.5.4), of the SAIP Draft EIR, the SAIP would not result in direct impacts to wetlands. With implementation of construction avoidance measures, such as best management practices (BMPs) and the establishment of buffer areas, as described in Mitigation Measure MM-ET-1 and specified in the April 20, 2004 Biological Opinion

issued by the U.S. Fish and Wildlife Service (USFWS) in support of the LAX Master Plan, there would be no significant indirect impacts to wetlands containing cysts of the Riverside fairy shrimp from construction activities associated with the SAIP. Salvage and storage of all Riverside fairy shrimp cyst-bearing soils were carried out in July and August 2005, pursuant to the April 20, 2004 Biological Opinion for the LAX Master Plan as well as the April 8, 2005 Biological Opinion for Operation and Maintenance Activities at LAX. Salvage activities were inspected by the USFWS (Carlsbad Fish and Wildlife Office), which is currently in the process of reviewing documentation regarding these activities prior to issuing a letter documenting compliance with the above mentioned Biological Opinions.

SAIP-PC00022 - 16

Comment:

- Avoid moves that lead to expanded airport capacity! Double handling = Double danger, double risk!
- A380 belongs at Palmdale! Finish and activate the Palmdale Regional Airport Master Plan!
- Easing airport access could lead to airport expansion. Incorporate some access-means distribution goals!
- Respect FAA Design-Standards Guidelines (AC150/5300-13). Avoid runway moves into obstacle-free zones!
- Follow-through on promises! Move the shrimp before any other activity in "critical habitats".

Response: Please see Responses to Comments SAIP-PC00022-11 through SAIP-PC00022-15 above. Please also see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00022 - 17

Comment: DEIR Section 4.,1, Hydrology/Water Quality, identifies construction-disturbance of 296 acres, generating nearly 816,000 cubic yards of material for export. 26.5 acres of new impervious cover will speed the runoff from the disturbance-area. A 10% increase in impervious cover seems significant from a layman's perspective. Proper drainage can certainly avoid flooding problems, but LAWA should reintroduce increased runoff back into the local groundwater table to avoid future subsidence. Threshold of Significance focused on flooding should be revised to recognize subsidence possibilities as well.

Response: Please see Response to Comment SAIP-AL00004-15 regarding potential impacts to groundwater resulting from the project-related increase in impervious surfaces.

SAIP-PC00022 - 18

Comment: Regarding major export of material (rubble and soil and organic waste) from the site, consideration should be given to construction of a major perimeter-berm between southside buildings to serve as effective sound-barrier (i.e. 100' across at the foot, reaching up as much as 40', to 10' across at the top, with sloped sides @ 1:1 planted heavily with sound-attenuating groundcover and trees) like Miami-Dade County Airport or around El Segundo's Chevron Property.

Response: Assuming the commentor is referring to a long-term measure to mitigate aircraft ground noise, please see Topical Response TR-SAIP-GEN-3 regarding the proposed mitigation measures for the SAIP. As explained in Section 7 (subsection 7.1.4.4) in Appendix D of the LAX Master Plan Draft EIR, the use of interruptive devices (berms, barriers, noise walls, and urban forests) are effective only when properly placed between the ground noise source and the impacted location, and then they are effective only when the surface elevations are such that the barrier actually interrupts the line of sight between the source and the receiver. Once the line of sight is interrupted, there is a rapidly diminishing rate of return between the height of the barrier and the noise level reduction. The geometrical relationship between the location and height of the source, the location and elevation of the receiver, and the location and elevation of the top of the barrier is complex and varies for every combination of points. The result of these factors is that noise barriers are generally effective only for a narrow area along the shadow side of the barrier (assuming no

difference in elevations between the source and the receiver). Also, for receivers exposed to aircraft noise from both ground level and in-flight sources, the effectiveness of the barrier disappears once the in-flight source rises above the elevation of the barrier. Consequently, the use of noise barriers in aircraft applications is generally limited to the reduction of a specific type of noise - such as run-ups or noise from activity on an apron - and then is effective only in nearby sensitive areas.

The aircraft noise impact analysis in Section 4.5 of the SAIP Draft EIR indicates that the 65 CNEL contour is affected by ground noise to the north and south of the airport. The ground noise sources causing this effect are takeoff roll, reverse thrust, and in very limited locations ground run-ups. While a lineal barrier along the north and south sides of the airport to abate noise coming from the runway might result in a limited reduction of noise in areas immediately adjacent to and behind the barrier on the side away from the airport, the rising elevation in El Segundo and Westchester defeat the effectiveness of the barrier concept. Because El Segundo and Westchester rise in elevation in relation to the airport, noise going over the berm will continue to affect land uses in those areas, thus defeating the purpose of the berm.

The abatement of maintenance run-up noise is incorporated into the Master Plan program through the planned construction of ground run-up facilities that will reduce the noise levels of such run-ups by approximately 20 decibels (or one-fourth the amount of perceived noise). Further mitigation of ground noise by interruptive devices is not considered practical or effective in reducing the impacts within the area of significant noise. Regarding the area south of the airport, aircraft noise impacts are expected to reduce during SAIP construction. Therefore, there are no significant impacts associated with SAIP aircraft noise along the south that require additional means of mitigation.

SAIP-PC00022 - 19

Comment: - Respect City/State Runoff guidelines! Increasing impervious cover endangers soil/water/geologic stability!
- Policy suggestion: Relocate any project-soils onsite - avoid exporting site materials!
- Design/build effective perimeter sound-barriers!

Response: Please see Responses to Comments SAIP-PC00022-17 and SAIP-PC00022-18 above. Regarding the suggestion to relocate any project soils onsite, LAWA has made every effort to balance the earthwork (cut and fill) needs associated with the implementation of the LAX Master Plan improvements. The efforts to balance the earthwork have cost and environmental consequences. Accordingly, the earthwork for each project is evaluated and the reuse of earthen materials is achieved where feasible. In the case of the SAIP, it was determined that a significant portion of the fill may be stockpiled on site for future development. This will reduce the need to haul off or import material in the future.

SAIP-PC00022 - 20

Comment: It has been three years since LAWA contracted to develop and Airport Master Plan for Palmdale Regional Airport (7/16/02). Since then Newhall Ranch (21,600-homes), Los Lomos (5,800-homes), Ritter Ranch (7,200-homes), Anaverde (5,200-homes), and Tejon Ranch's Centennial (23,000-homes) have proposed to join the 1,179,228 residents of northern Los Angeles County. Investing now (before facing neighbor-complaints) in developing Palmdale Airport, instead of making-over at LAX, would only make good sense. If LAX becomes the sole option for airlines using A380's, the increased traffic from the north will totally gridlock the Impact-zone. More is no longer better! SAIF should be adding pressure to complete GreenLine service to LAX directly (in fact, through LAX to pick up Loyola University and Playa Vista) terminating at I-90 and Culver Blvd., DEIR Section 4.2.3.3.4 indicates assumptions of growth and increased traffic. A steady annual 2 percent increase is a flawed assumption in recognition of the variations connected with project completions (DEIR Table 4.2-7). Money earmarked toward SAIP should be redirected to a high-speed rail connection between LAX, Palmdale, and Ontario Airports. Shanghai, Munich, Pittsburgh, Baltimore, and Atlanta are all readying city-to airport high-speed rail connections. Taipei-Kao-Hsiung, London-Glasgow, Tampa-Orlando, and Zurich-Geneva rail connections are in development. Tokyo/Osaka/Fukuoka, Boston/New York, and Paris/Brussels/London are operational. Newark connects to Penn Station. Vegas to Primm (where a new airport is being developed), and on to Anaheim is probable. LAX/PMD by Maglev could be a 30-minute ride. A true intermodal scheme

would connect LAWA's three commercial airports by Maglev, while connecting both LAX and Ontario through Union Station by light-rail (with extensions of GreenLine and seamless connections to downtown and Long Beach).

- Develop efficient air service for north L.A. County growing population (soon-to-be 2-million)! PMD.
- Redirect LAX expenditure-budget to assist in LAWA airport rail connections!

Response: The primary purpose of the SAIP is to improve aviation safety at LAX by improving the south airfield to help prevent runway incursions and help reduce the risk that a runway incursion results in an accident or other incident. It is not one of the objectives of the SAIP to foster overall regional solutions to problems related to transportation because the SAIP is focused strictly on improving safety at LAX; it does not affect capacity or other items that might translate to regional issues. Efforts by LAWA to enhance the region's air transportation system were addressed in the LAX Master Plan. Please see Topical Response TR-SAIP-PD-1 regarding the purpose and need of the SAIP and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

SAIP-PC00022 - 21

Comment: Mitigations must be fully spelled out (including assumptions for funding). Too often, a proposed mitigation is stated merely as a proposal to "study the problem" or "monitor the situation" (i.e. Traffic operations Sect. 4.2.8. Proposed mitigations involving other government bodies are often not likely to be funded (i.e. I-405 offramp at Lennox, local traffic-signal and intersection improvements, + I-90 R-O-W changes). GreenLine extensions are given little consideration despite being a South Airfield Improvement condition due to current station location. LAWA proposes in "D" certain development subject to "daily vehicle trip-caps" (2-117/8). The same developments were proposed in "A, B, and C" with higher traffic levels projected. "D" development has less impact than "No Project.". That's wrong because elsewhere developments-in-question are identified as baseline for additional development in "D" and affect off-airport projects. SAIP DEIR Table 3-1.

- Develop meaningful mitigations that mitigate impacts not just study further!
- Respect changing off-airport conditions!

Response: The SAIP Draft EIR addresses traffic in Section 4.2 with supporting technical data and analyses provided in Appendices G through J. The Draft EIR traffic analysis is limited to assessing potential traffic impacts associated with the construction of the SAIP and identifying appropriate mitigation measures to address these potential impacts. Of the nineteen intersections studied in the traffic impact analysis, only the intersection of Imperial Highway & I-105 Ramps East of Aviation Boulevard had a potentially significant but temporary impact due to construction of the SAIP. The LAX Master Plan Final EIR proposes traffic mitigation for this intersection that includes roadway widening to accommodate additional lanes of traffic to offset traffic impacts caused by the full build-out of the LAX Master Plan. Although this intersection will ultimately be upgraded as part of the LAX Master Plan, implementing these significant improvements to offset the temporary impacts of the construction of the SAIP is not justified given that the peak activity associated with the construction of the SAIP would be short term, on the order of one month in duration. Widening the roadway in order to install additional traffic lanes at this intersection would create a greater disruption to the traffic flow for a longer period of time than the impact caused by the SAIP project-related construction traffic.

The commentor also describes local developments and their effect on the analysis of LAX Master Plan Alternatives A, B, C, and D and the No-Project Alternative. This comment pertains to the overall LAX Master Plan and/or LAX Master Plan EIS/EIR, and does not pertain to, or raise, environmental issues specific to the SAIP, or, therefore, to the SAIP Draft EIR. It is not necessary or appropriate to respond to comments on the LAX Master Plan and related EIS/EIR because the CEQA review process for the LAX Master Plan was completed in December 2004.

However, with respect to the SAIP traffic study, planned local area development projects within the vicinity of the study area were identified through consultation with representatives of neighboring communities. Based on review of these proposed developments, it was determined that the traffic generated by these local area projects would be included in the assumed growth rate of 2 percent used for background traffic given that most of the developments were not within the immediate vicinity of the SAIP and peak trip generation of these developments would not coincide with the off-peak hours analyzed for the SAIP.

SAIP-PC00022 - 22

Comment: Impact Analyses are inadequate in the following categories: Noise, Land-Use, Surface Transportation, Environmental Justice, Growth-Induction, Air Quality, Hydrology/Water Quality, Biotic Resources, Endangered and Threatened Species, Wetlands, Coastal Resources, Energy Supply, Solid Waste, Seismic Concerns, Hazardous Materials, and Public Utilities.
- Broaden Impact-Analysis team for wide-ranging perspectives!

Response: This Final EIR is tiered from the LAX Master Plan Final EIR and as such, is not required to provide analysis on impacts already discussed in that document. Please see Topical Response TR-SAIP-PD-2 regarding the Relationship of the SAIP Tiered EIR to the LAX Master Plan EIR.

This comment fails to raise any specific issues to which any further response could be formulated.

SAIP-PC00022 - 23

Comment: From DEIR Table 4.3-1 & 4.3-2 we find LAX 2005 Fleet Mix and LTO Cycles (estimated at 372,556). Much has been said in the Report about accommodating the A380. Shouldn't a hypothetical Fleet Mix and LTO Cycles estimate be made for 2015 in order to estimate the impact of adding the new giant heavy.

Response: Please see Topical Response TR-SAIP-PD-1 regarding the relationship between the SAIP and the A380 aircraft and Topical Response TR-SAIP-PD-2 regarding the relationship of the SAIP tiered EIR to the LAX Master Plan EIR.

The LAX Master Plan Final EIR documents potential pollutant emissions for the assumed peak construction year for the Master Plan (2005), an interim year (2013), and a future operational year (2015). The A380 and other large aircraft were assumed to be operating at LAX in the 2013 and 2015 air quality analyses conducted for the Master Plan.

The air quality analyses presented in the SAIP Draft EIR examine, at a greater level of detail, potential air quality impacts specifically associated with the SAIP, with a particular emphasis on the construction period impacts. The air quality presented in the SAIP Draft EIR "tiers" from the analysis and findings documented in the LAX Master Plan Final EIR. The analyses have been further refined to incorporate detailed project-related assumptions regarding construction equipment that will be utilized and airport activity levels during the construction of the SAIP.

The air quality analysis presented in the SAIP Draft EIR present emission estimates for two years: 2003 (the latest full calendar year before the date of the August 2004 NOP and referred to as the Baseline year) and 2005 (the assumed Project peak construction year). The A380 aircraft will not be in operation at LAX before or during the peak construction period for the SAIP and hence it was not included in the aircraft air quality analyses in the SAIP Draft EIR.

SAIP-PC00022 - 24

Comment: Table 4.3-6 indicates an emissions inventory for On-Airport sources that includes aircraft only in stationary mode. Isn't it true that emissions discharge from aircraft would be significantly higher on takeoff, acceleration, or landing modes? When will we face up to the task of a real inventory to include the periods of aircraft movement? The drift of aircraft discharge above ground may be descending to measurement stations only miles from the actual source (the zone around the airport).

Response: As described in Section 4.3 (subsection 4.3.2.4) of the SAIP Draft EIR, the Emissions and Dispersion Modeling System (EDMS) is used to calculate aircraft emissions for the four primary modes of aircraft operation that make up a landing takeoff cycle: takeoff, climb out, approach, and taxi/idle. Aircraft emission estimates presented in Table 4.3-6 incorporate emissions generated by aircraft while they are in each of these modes. The emission source category in Table 4.3-6 called "Stationary" refers to stationary sources of emissions (e.g., fixed combustion equipment, coating and solvent activities, organic liquid storage, etc.). Emissions generated by aircraft engine testing activities were also included in the source category "Stationary".

SAIP-PC00022 - 25

Comment: The projections of emissions distribution are difficult to read (given only grid readings). Could a more-clear graphic like the noise-contours be developed for each of the types of emission reported? Numbering/identifying the gridded air quality receptors would allow a much more thorough analysis of the off airport air quality. Where is the count high, where low? When?

Response: Exhibit 4.3-5 in Section 4.3 of the SAIP Draft EIR presents the location of the highest pollutant concentrations for Project (2005) conditions. This information is also presented in tabular form in Table 4.3-14 of Section 4.3 of the SAIP Draft EIR. Pollutant concentrations were calculated at each of the grid points presented on Exhibit 4.3-5 but the additional concentration information is not included in the Draft EIR because it is not needed to determine whether the SAIP would result in significant impacts with respect to the National and California ambient air quality standards (AAQS). Pollutant concentrations at grid receptors other than those highlighted on Exhibit 4.3-5 are lower than values presented in Table 4.3-14. Detailed information regarding pollutant concentrations is included in the output files that were generated by the AERMOD dispersion model.

SAIP-PC00022 - 26

Comment: Air quality analysis regarding aircraft operations is woefully inadequate. The Report indicates only (4.3.7 that the project will have significant impacts with respect to both PM10 and PM2.5 particle concentrations. We're told "Mitigation measures are being formulated and will be approved prior the project implementation." Yeah! Trust me! Despite recommending the export of 816,000 cu yds of rubble, "no additional project-specific mitigation measures are recommended". There's an assumption that a GSE conversion program is underway. However, a further statement indicates that such a program will be done by 2015. In other words "we're working on improving the engines to reduce emissions". Trust us! This is considered totally inadequate analysis, and an even worse score on mitigations.

Response: Please see Topical Response TR-SAIP-GEN-3 regarding implementation of the proposed SAIP mitigation measures. Please also see Response to Comment SAIP-AL00005-37 regarding the formulation of mitigation measures for the LAX Master Plan and its components including the SAIP.

LAWA is currently finalizing the Mitigation Plan for Air Quality (MPAQ) to meet the requirements of the LAX Master Plan Mitigation Monitoring & Reporting Program (MMRP). The purpose of the MPAQ is to ensure that air quality mitigation measures identified in the LAX Master Plan Final EIR are implemented and completed as part of project construction and to identify and implement other feasible mitigation measures that may not have been identified in the LAX Master Plan Final EIR. The MPAQ will be completed prior to the implementation of the SAIP.

SAIP-PC00022 - 27

Comment:

- Develop a meaningful and thorough estimate of AQ conditions in 2015 (including operations of new heavies).
- Show the public graphically where the air is more heavily polluted, and how much of the time.
- Report the current means of mitigating airport generated air pollution.
- Identify the 2015 anticipated reductions of air degradation, and a timetable for reaching maximum mitigation.

Response: Please see Responses to Comments SAIP-PC00022-23 through SAIP-PC00022-26 above.

SAIP-PC00022 - 28

Comment: DEIR indicates that there is an increased carcinogenic risk associated with LAX and its SAIP. As many as 19-in-a-million more cancers than normally expected (in adults) in the Los Angeles Air Basin may be traced back to LAX (6-in-a-million for children). [4.4.7.1] A potential for Non-Cancer Chronic Health Hazards also occurs in areas around LAX. Risk indices were developed for the

hazard potential related to LAX-lengthy-exposure. A hazard index of 1 or greater indicates potential for adverse health effects. Regarding Chronic Non-Cancer Hazards, adults read a #1 hazard index, while children read a #5. [4.4.7.2] The hazards relate to ingestion of acrolein, heavily present in jet engine exhaust. Acute but not chronic hazards ranged from #1 to 19 depending on how much acrolein which one might be exposed. # 1 is a hazard index threshold of significance for acute effects. [4.4.7.3] LAWA promises to mitigate emissions to the extent possible. The Toxic Air Contaminants Inventory is based on the assumption that air quality mitigation measures would be in place. [4.4.8] However, LAWA started a study of air quality strictly related to LAX which was interrupted by events of 9/11/01. LAWA promises to reinitiate the study to evaluate toxic air contaminant emissions from jet engine exhaust (and other sources). Risks in the LAX area were not estimated directly, because no permanent monitoring station for TACs was located at or near LAX when basin-wide AQMD studies were going on. (Note: El Segundo attempted to establish such a station location during the MATES-II study period, but after locations had been secured, the City Council unexpectedly withdrew participation without explanation.)

- LAX is a source of increased risks of cancer, non-cancer chronic health problems, and acute health problems.
- Follow through on LAWA's promise to study the area air quality and toxic contaminants related to jet engines.
- With AQMD assistance, establish a fully-equipped permanent air-quality monitoring station on LAX property.

Response: Please see Responses to Comments SAIP-PC00010-22 and SAIP-PC00010-23 regarding the LAX Air Quality Source Apportionment Study, including the reasons why the study was interrupted and LAWA's plans to reinitiate the study and Response to Comment SAIP-PC00010-24 regarding the lack of a monitoring station in the vicinity of LAX. Contrary to the commentor's statement that risks in the LAX area were not estimated directly, the human health risk assessment did directly calculate incremental risks associated with the SAIP. The results of this analysis are provided in Section 4.4 of the SAIP Draft EIR, with supporting technical data and analyses provided in Appendix L. Moreover, although the commentor states that hazards from the project are related to the ingestion of acrolein, in fact they are due to the inhalation of acrolein in emissions from aircraft.

SAIP-PC00022 - 29

Comment: Lingering questions. Several of the graphic representations of the Project area show a long extension of work area on the west end beyond the end of the proposed relocated runway. Is this a grading area to allow for future runway extension? Will it be graded level enough to serve as a quick-stop deep-gravel crash zone like steep-hill truck runaway zones? Or is it a way of avoiding need for a future EIR when time may come to extend all runways?

- What is the function of the included west-end runway-extension area in SAIP documents?

Response: The graphics included in the SAIP Draft EIR, specifically those included in Chapter 2, Project Description, depict the entire project limits, including improvements to the east and west ends of the runway. These improvements at the ends of the runway are primarily associated with the relocation of navigational and landings (visual) aids. These areas extend well beyond the ends of the runways and include areas reserved for the placement of beacons and light systems. The relocation of the approach light system (ALS) will require the grading of a slight area to ensure that proper access be provided for maintenance vehicles. Furthermore, a section of the relocated Runway Safety Area (RSA) on the west side will be graded to meet the FAA RSA requirements.

The potential environmental impacts of this work are analyzed in the LAX Master Plan EIR at Sections 4.10 and in the SAIP Draft EIR at Sections 4.6.6 and 5.4.

SAIP-PC00022 - 30

Comment: In conclusion, seventeen findings of Negative and Significant but Unavoidable Impacts (with mostly unsatisfying mitigations proposed), coupled with a largely unjustified proposal to add a central taxiway, does not justify moving runway 25L 55.5' closer to off-airport residences. If runway 25L is in poor repair, fix it in place, then, widen and strengthen one of the other runways to accommodate the new "Heavies". Better yet, develop Palmdale's 17,750-acres to accommodate them with less impact than at Lax. LAWA willingly relocates a federally protected species to a new site, while

simultaneously subjecting fellow humans to increased risks of cancer; noise and disruption; increased traffic stress; and a diminished quality of life. It appears that if LAWA, the LAX staff, and Airlines pilots operated totally in accord with stated operations policies*, airfield incursions and off-airport neighbor-complaints would be minimized and neighbors' quality-of-life could continue to improve.

*Minimal thrust 'til 2-miles out to sea. Take-off low and quiet. Heavies use inboard runways exclusively. Minimize operations to maximize safety.

Response: The comment is noted. Please see Responses to Comments SAIP-PC00022-1 through SAIP-PC00022-29 above.

SAIP-PC00023 Hamilton, Patricia None Provided 9/15/2005

The content of this comment letter is essentially the same as comment letter SAIP-PC00021 submitted by the same commentor; please refer to the responses to comment letter SAIP-PC00021. A copy of comment letter SAIP-PC00023 is provided in Attachment 1 of this Final EIR.

IV. Corrections and Additions to the South Airfield Improvement Project Project-Level Tiered Draft EIR

4.1 Introduction

As a result of clarifications to, and comments received on, the Draft Environmental Impact Report (Draft EIR) for the proposed South Airfield Improvement Project (SAIP), the following revisions are hereby made to the text of the SAIP Draft EIR. Changes in text are signified by strikeouts where text is removed and by italics where text is added, unless otherwise noted. These changes do not add significant new information to the EIR, nor do they disclose or suggest new or more severe potentially significant environmental impacts of the SAIP.

4.2 Corrections and Additions to the Draft EIR Text

Chapter I, Introduction

1. The following text is added after the third bullet point on page I-8:

- *ST-21. Construction Employee Parking Locations. Employee parking locations will be selected that are close to the I-405 and I-105 Freeways such that the parking locations can be accessed by employees with minimal disruption to surface streets. Shuttle buses will transport employees to construction sites. This measure provided the guidelines for establishing the location of the SAIP construction employee parking lot on La Cienega Boulevard.*

2. **Table 1-2 (3 of 3)** on page I-25 of the Draft EIR is hereby revised as follows:

Table 1-2 (3 of 3)

Summary of Other Potential Environmental Impacts - Related to the South Airfield Improvement Project

Impact by Discipline	Master Plan Commitments and Mitigation Measures	New Mitigation Measures	Level of Significance After Mitigation
Public Utilities			
An exceedance of regional water supply and distribution capabilities due to project-related water demand.	See Section 5.11.3.2	See Section 5.11.3.4	Less than significant.
Interference with major water distribution facilities due to construction of project features.	See Section 5.11.3.2	See Section 5.11.3.4	Less than significant.
An exceedance in the capabilities of regional wastewater collection and treatment facilities due to project-related wastewater generation.	See Section 5.11.3.3.2	See Section 5.11.3.4	Less than significant.
Interference with major wastewater collection facilities due to construction of project features.	See Section 5.11.3.1.2	See Section 5.11.3.4	Less than significant.
Public Services			
Restricted emergency access, increased response times, extended station response distances, or decreased fire flow beyond the standards maintained by the agencies serving LAX and the surrounding communities.	See Section 5.12.3.1.1	See Section 5.12.4.2	Less than significant.
Project-related effects cause the c Closure of a library or substantially inhibited use of a library.	See Section 5.12.4.1.3	See Section 5.12.4.2	Less than significant.

Source: Ricondo & Associates, Inc. based on analyses provided throughout Chapter V.
 Prepared by: Ricondo & Associates, Inc.

Chapter II, Project Description

1. The last paragraph of page II-2 of the Draft EIR is hereby revised as follows, footnote references contained therein have not been changed:

In terms of operational efficiency, LAWA determined that a center parallel taxiway would *result in have* the least average annual taxi time and taxi delay compared to other taxiway configurations.⁵ *Runway 7R-25L, in its current state, is capable of handling the new large aircraft (NLA) that are slated to begin operating at LAX in 2007. The SAIP, therefore, is not required to accommodate NLA at LAX. The airfield modifications would also improve the ability of LAX to efficiently handle new large aircraft (NLA), thereby helping the airport sustain and advance its role as the region's international gateway.*

One component of the SAIP airfield modifications, parts of the bridge improvements to the Sepulveda Boulevard Subway included in the SAIP, would also improve the ability of LAX to safely handle NLA. These bridge improvements would reduce the likelihood of pavement settlements that would result over time by ongoing use by NLA of the South Airfield. In any case, these bridge improvements are required pursuant to LAX's ongoing maintenance program and to accommodate the SAIP generally. Thus, their utility in terms of NLA is circumstantial, not direct.

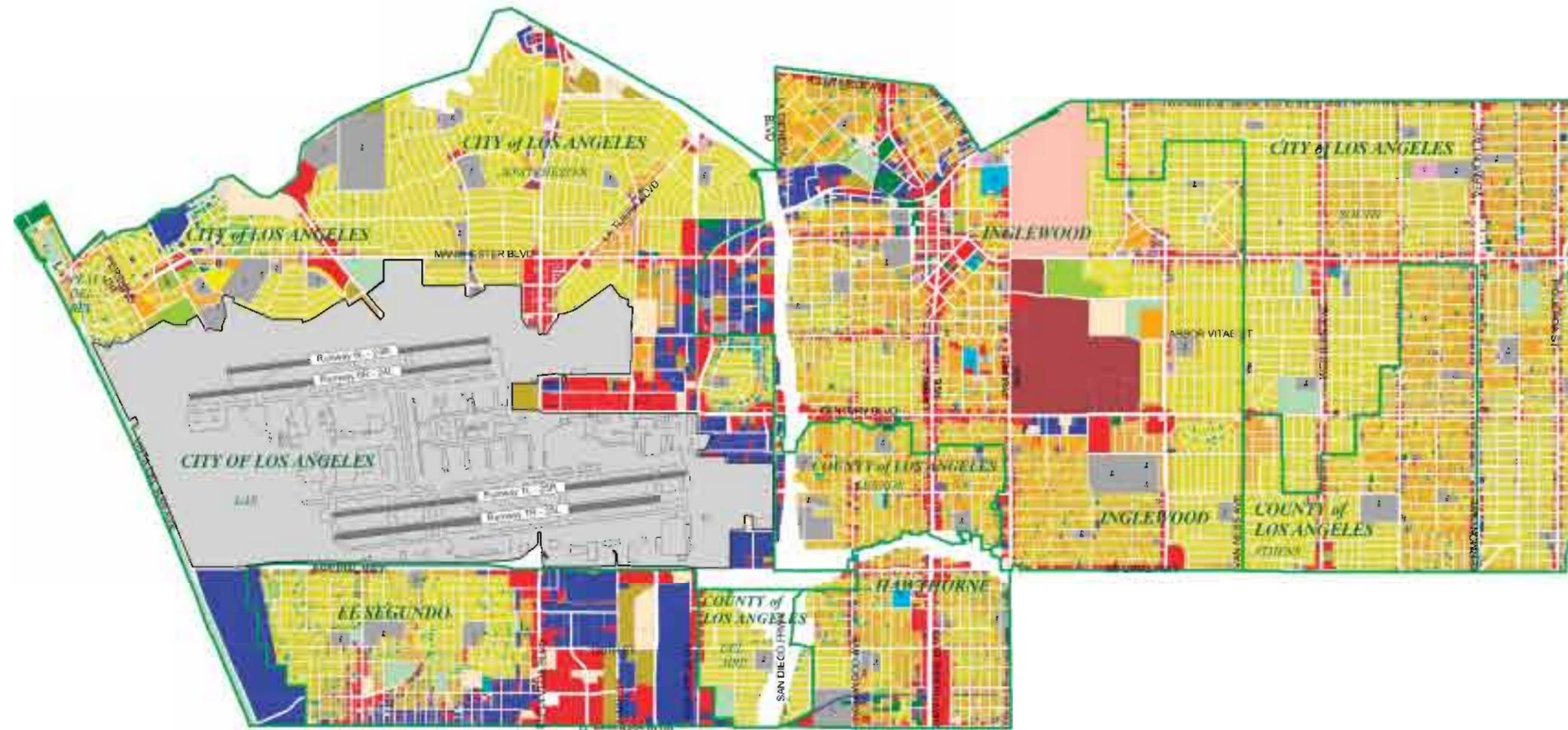
As of July 2003, seven of the international air carriers operating at LAX using the B747 placed firm orders for the Airbus A380. It is projected that some of these carriers will initiate A380 service at LAX in the 2007 2006 time frame.⁶ As the region's primary international airport, it is crucial that LAX is capable of accommodating these aircraft when they become operational. *As previously addressed in the LAX Master Plan EIR, this will occur regardless of the SAIP.*

2. The second bullet item of the third paragraph on page II-3 of the Draft EIR is hereby revised as follows:

A new 11,906-foot long by 100-75-foot wide full-length Group V parallel taxiway would be constructed between Runways 7L-25R and 7R-25L.

Chapter III, Overview of Project Setting

1. **Exhibit 3-2**, on page III-3 of the Draft EIR has been revised. Please see the following revised exhibit.



LEGEND

	Single Family Residential		Hospital, Convalescent		Cemetery		Runways
	Multi Family Residential		Library		Title 21 Compliant		Airport Boundary
	Mobile Home		Park		Title 24 Compliant		Jurisdictional Boundary
	School		Commercial		Recreation		
	Church		Industrial		Vacant		
	Hospital		Government		Other, Assumed Vacant		

Source:
 Psomas, April 2000
 El Segundo General Plan, December 1992
 Hawthorne General Plan, April 1990
 Inglewood General Plan, January 1980
 Los Angeles County General Plan, November 1980
 West Adams-Baldwin Hills-Leimert Community Plan, May 1996
 West Athens/Westmont Community Plan, March 1990
 Westchester-Playa del Rey Community Plan, June 1974
 South Central Los Angeles Community Plan, October 1979
 PCR Services Corporation, 2002 - GIS datasets and mapping

Chapter IV, Setting, Environmental Impacts, and Mitigation Measures

1. The first sentence of the third full paragraph on page IV-3 of the Draft EIR is hereby revised as follows:

For this Draft EIR, the environmental baseline consists of the physical conditions that existed in ~~August~~ ~~July~~ 2004, the month in which the NOP was published.

2. The second sentence of the third full paragraph on page IV-3 of the Draft EIR is hereby revised as follows:

When a full year's worth of data was appropriate for describing the existing environmental setting, data was used from 2003, the latest full year before the date of the ~~August~~ ~~July~~ 2004 NOP.

3. The last sentence in the second full paragraph on page IV-20 of the Draft EIR is hereby revised to include the footnote indicated below:

Waters in this subarea have been characterized as having elevated metal and pesticide concentrations in sediments along with high coliform counts.^{22a}

Footnote: 22a <http://www.hgcinc.com/tmdl/states/catmdltables.html>

Section 4.2, Off-Airport Surface Transportation

1. The following text is added after the fourth bullet point on page IV-55 of the Draft EIR:

- ***ST-21. Construction Employee Parking Locations.*** *Employee parking locations will be selected that are close to the I-405 and I-105 Freeways such that the parking locations can be accessed by employees with minimal disruption to surface streets. Shuttle buses will transport employees to construction sites. This measure provided the guidelines for establishing the location of the SAIP construction employee parking lot on La Cienega Boulevard.*

Section 4.3, Air Quality

1. The second sentence of the second paragraph on page IV-81 of the Draft EIR is hereby revised as follows:

The analysis describes conditions in two years: 2003 (the latest full calendar year before the date of the ~~August~~ ~~July~~ 2004 NOP and referred to throughout this section as the Baseline year) and 2005 (the assumed Project peak construction year).

2. **Exhibit 4.3-1**, on page IV-97 of the Draft EIR has been revised. Please see the following revised exhibit.

3. The following sentence is added to the end of the third paragraph on page IV-104 of the Draft EIR:

In the Spring of 2005, SCAQMD formally requested that the South Coast Air Basin be redesignated as having met the Federal ambient air quality standards for CO.

4. The last sentence of the last paragraph on page IV-104 of the Draft EIR is hereby revised as follows:

As discussed in Section 4.3.4, Federal and State of California ambient air quality standards for PM_{2.5} were used as thresholds of significance in the SAIP EIR.

5. On page IV-107 of the Draft EIR, the second paragraph is hereby revised as follows:

In the South Coast Air Basin, the City of Los Angeles, CARB and the SCAQMD have adopted ~~or proposed additional~~ rules and policies governing the use of cleaner fuels in public vehicle fleets. City of Los Angeles Policy CF#00-0157 requires that all City-owned or operated diesel-fueled vehicles be equipped with particulate traps and that they use low-sulfur diesel fuel. CARB recently adopted a Risk Reduction Plan for diesel-fueled engines and vehicles. The SCAQMD has ~~proposed a series of rules that would require the use of clean fuel technologies in on road school buses, on road heavy duty public fleets, and street sweepers~~ adopted a series of "clean fleet rules" including: 1191 for Light- and Medium-Duty Public Fleet Vehicles, 1192 for Clean On-Road Transit Buses, 1193 for Refuse Collection Vehicles, and 1194 for Commercial Airport Operations GAV. To be consistent with the air quality analyses conducted for the LAX Master Plan Final EIR and the Final General Conformity Determination, recent plans and policies addressing ground access vehicle emissions have not been incorporated into the air quality impact analysis described below. The emissions reductions that would be associated with implementation of SCAQMD's clean fuel rules are not incorporated into the SAIP air quality analysis; therefore, the estimate of ground access vehicle emissions is considered conservative.

6. On page IV-107 of the Draft EIR, the first paragraph under Section 4.3.3.3, the last sentence is hereby revised as follows:

The 2001 Regional Transportation Plan (RTP) prepared by SCAG received federal approval in June 2001 ~~and the 2004 RTP was completed in June 2004.~~ The 2004 RTP was adopted by SCAG in April 2004 and was approved by State and Federal agencies in October 2004.

7. The second sentence in the third paragraph on page IV-108 of the Draft EIR is revised as follows:

The closest monitoring station, and most representative of ~~existing~~ 2003 Baseline air quality conditions in the project area, ~~is~~ was the Southwest Coastal Los Angeles Monitoring Station located at 5234 West 120th Street in Hawthorne, California, or about 2 miles southeast of the Theme Building.



Source: LAX Master Plan EIS/EIR, 2004
Prepared by: Ricondo & Associates, Inc.

Exhibit 4.3-1

LEGEND

↑ north

— Project Area

Location of Meteorological Station and Air Quality Monitoring Station

Note: The SCAQMD Monitoring Station was relocated to the corner of 91st Street and Hastings Avenue in April 2, 2004

8. A footnote is added to the end of the second sentence in the third paragraph on page IV-108 as follows:

The Southwest Coastal Los Angeles Monitoring Station moved to the intersection of 91st Street and Hastings Ave. in April 2004. The relocation of the monitoring station has no effect on the air quality analysis conducted for the SAIP.

9. The second sentence in the first paragraph on page IV-113 of the Draft EIR is hereby revised as follows:

~~Of the~~ Three commitments and four mitigation measures ~~that~~ were designed to address air quality impacts related to implementation of the LAX Master Plan, ~~four are applicable to the SAIP and hence were considered in the air quality analysis conducted for the SAIP as part of the project.~~

10. The first sentence in the first full paragraph on page IV-114 of the Draft EIR is hereby revised as follows:

LAX Master Plan Commitments *AQ-1 Air Quality Apportionment Study, AQ-2 School Air Filters, and AQ-3 Mobile Health Research Lab* were not ~~evaluated~~ *quantified as part of* in the air quality analysis conducted for the SAIP because they ~~are not applicable to the project~~ *would not reduce construction or airport operational emissions generated by the SAIP. Accordingly, these measures are not relied on in determining the potential significance of the SAIP's impacts in this regard.*

11. **Table 4.3-8** on page IV-114 of the Draft EIR is hereby revised as follows:

Table 4.3-8

Construction Related Mitigation Measures Incorporated into the Project (2005) Construction Emissions Inventory

<u>Mitigation Measure</u>	<u>Potential Emissions Reduction by Equipment</u>
<u>Heavy Duty Diesel (Offroad)</u> Clean burning diesel fuel (e.g., Lubrisol) Particulate Traps Injection Timing Retarding	24% NO _x , 85% PM ₁₀ , and 85% PM _{2.5}
<u>Diesel Generators</u> Replace with electric generators - 33.4% Clean burning diesel fuel (e.g. Lubrisol) – 33.3% Particulate traps and clean diesel – 33.3%	33% CO, 33% VOC, 46% NO _x , 33% SO ₂ , 83% PM ₁₀ , and 83% PM _{2.5}
<u>Fugitive dust caused on and off-site vehicle trips</u> Chemical Stabilizers Watering (per SCAQMD Rule 403)	63% PM ₁₀ and 63% PM _{2.5}

Source: CDM, September 2004.
Prepared by: Ricondo & Associates, Inc.

12. **Table 4.3-14** on page IV-118 of the Draft EIR is hereby revised as follows:

Table 4.3-14

Combined Airport Activity and Construction Air Pollutant Concentrations (Including Background)

Pollutant (Conc. Units)	Averaging Period	NAAQS/ CAAQS	Project	Exceed AAQS?
CO (ppm)	8-hr	9 / 9.0	7.1	No
	1-hr	35 / 20	11.6	No
NO ₂ (ppm)	Annual	0.053 / n.a	0.042	No
	1-hr	n.a / 0.25	0.22	No
SO ₂ (ppm)	Annual	0.030 / n.a	0.005	No
	24-hr	0.14 / 0.04	0.013	No
	3-hr	0.5 / n.a	0.034	No
PM ₁₀ (µg/m ³)	1-hr	n.a / 0.25	0.065	No
	AAM	50 / n.a	43.3 42.2	No
	AGM	n.a / 20	38.2	CAAQS only
	24-hr	150 / 50	88.8	CAAQS only
PM _{2.5} (µg/m ³)	AAM	15/12	29.6	NAAQS and CAAQS
	24-hr	65/n.a	110.1	NAAQS and CAAQS

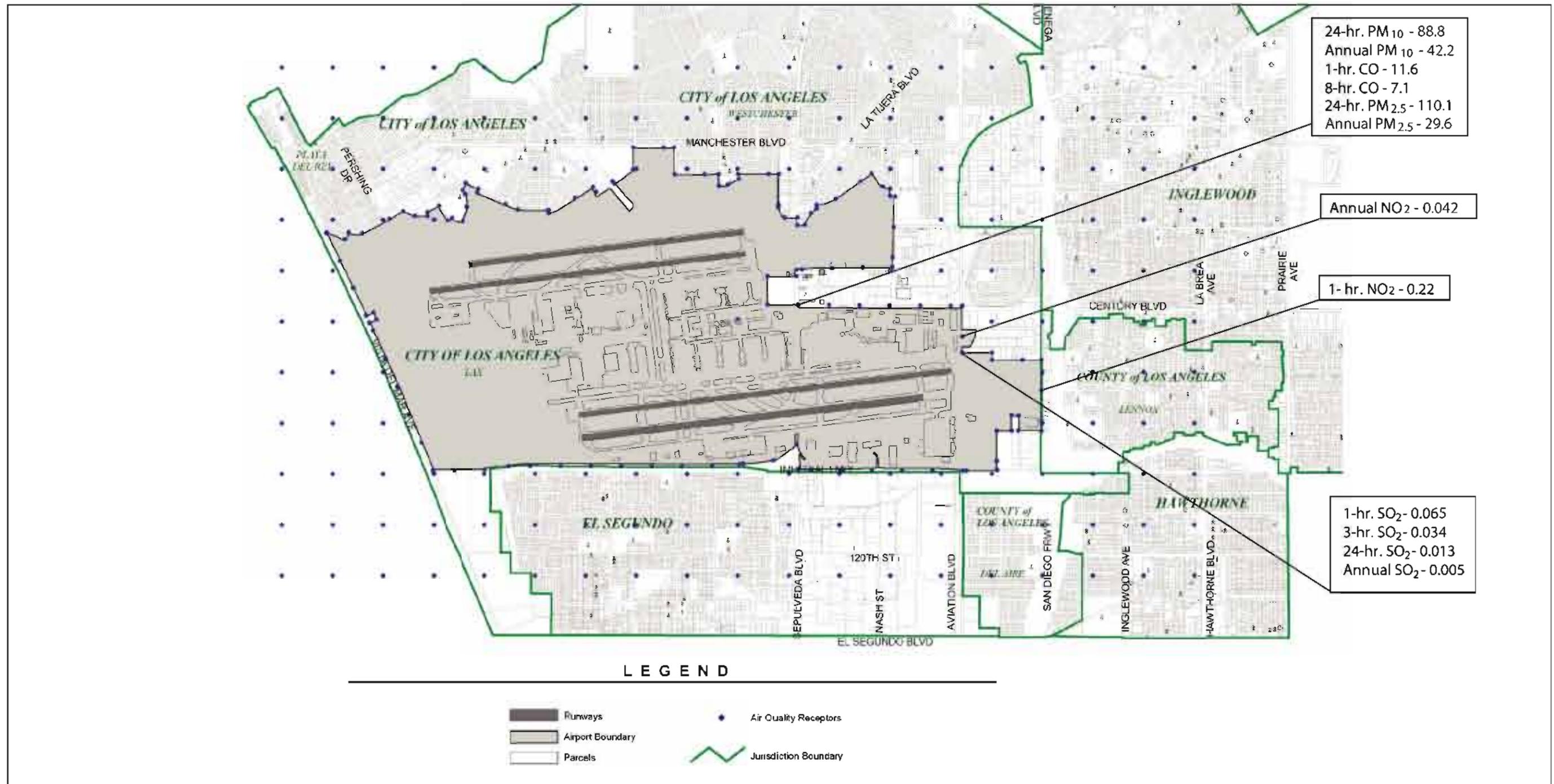
Source: PCR Services Corporation, 2005.
Prepared by: Ricondo & Associates, Inc.

13. Following the fifth sentence, the first paragraph on page IV-120 of the Draft EIR is hereby revised as follows:

Pollutant emissions from the three other LAX construction projects were calculated based on environmental documentation, such as the Final MND for Tom Bradley International Terminal (TBIT) Interior Improvements and Baggage Screening Facilities Project, 2004 and Draft MND for LAX Inline Baggage Handling System Project, 2005. For the cumulative impact analysis it was assumed that the peak construction period for the three other LAX projects would occur concurrently with peak construction period for the SAIP. Emissions from the reasonably foreseeable future projects were estimated to be 143 pounds per day of CO, 111 pounds per day of VOC, 121 pounds per day of NO_x, less than one pound per day of SO₂, 41 pounds per day of PM₁₀, and 14 pounds per day of PM_{2.5}.

*The concurrent peak construction emissions from the three other LAX projects combined with peak SAIP emissions were evaluated for potential exceedances of applicable NAAQS and CAAQS. As shown in the **Table 4.3-15**, pollutant concentrations under the cumulative impact scenario (Project and Related Projects) are predicted to meet the applicable NAAQS and CAAQS for all pollutants except PM₁₀ and PM_{2.5}. PM₁₀ concentrations are predicted to exceed the PM₁₀ CAAQS and PM_{2.5} concentrations are predicted to exceed the PM_{2.5} CAAQS and NAAQS. Accordingly, the project will *potentially* have significant impacts with respect to both PM₁₀ and PM_{2.5} concentrations.*

14. **Exhibit 4.3-5** on page IV-119 has been revised. Please see the following revised exhibit.



Source: Psomas, April 2000; Landrum & Brown, December 2002; LAWA, 1994; PCR Services Corporation
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.3-5



Highest Pollutant Concentrations - Project (2005)

15. The second sentence in Section 4.3.8 on page IV-121 of the Draft EIR is hereby revised as follows:

The specific means for implementing the mitigation measures described in Section 4.3.5, *and more specifically the construction measures listed in Table 4.3-9*, are in the process of being formulated and will be approved prior to project implementation.

16. The first bullet sentence on page IV-121 of the Draft EIR is hereby revised as follows:

Airport-related emissions (e.g., aircraft, GSE, *and ground access vehicles*), ~~and stationary sources~~ exceed the significance thresholds for CO, VOC, NO_x, SO₂, and PM₁₀.

Section 4.4, Human Health Risk Assessment

1. The last sentence on page IV-133, first sentence of page IV-134 of the Draft EIR is hereby revised as follows:

The goal of the Mobile Health Research Lab will be to research and study, not diagnose or treat, upper respiratory *illnesses* that may be directly related to the operations of LAX.

2. The first three sentences of the third paragraph on page IV-135 of the Draft EIR are hereby revised as follows:

Project-related incremental cancer risks for the MEI are summarized in **Table 4.4-2** *and illustrated in Exhibit 4.4-1*. As indicated in the table, implementation of the SAIP would result in an incremental MEI cancer risk for adult residents of ~~19~~ 20 in one million at locations with the highest predicted TAC concentrations. This means that, in 2005, if the maximally exposed adult resident were exposed to TAC concentrations associated with SAIP construction and operations for a period of 70 years, there could be a risk of *approximately* ~~19~~ 20 additional cancer cases per million people exposed compared to 2003 baseline conditions.

3. The last sentence of the third paragraph on page IV-135 of the Draft EIR is hereby revised as follows:

Total estimated incremental cancer risks for a young child through adulthood (adult + child) with maximum predicted TAC concentrations is estimated to be ~~twenty~~ 21 in one million.

4. **Table 4.4-2** on page IV-135 of the Draft EIR is hereby revised as follows:

Table 4.4-2

Incremental Cancer Risks and Chronic Non-Cancer Human Health Hazards for Maximally Exposed Individuals for 2005 SAIP Compared to 2003 Baseline

Receptor Type	Incremental Cancer Risks ^{1/} (per million people)
Child Resident	6
School Child	2
Adult + Child Resident ^{2/}	29 21
Adult Resident	49 20

	Incremental Non-Cancer Chronic Hazards ^{3/}
Child Resident	5
School Child	2
Adult Resident	1

Notes:

- 1/ Values provided are changes in the number of cancer cases per million people exposed as compared to baseline conditions. All estimates are rounded to one significant figure.
- 2/ Includes exposure to TACs released from LAX from childhood (ages 0-6) through adulthood (ages 7-70).
- 3/ Hazard indices are totals for all TACs that may affect the respiratory system. This incremental hazard index is essentially equal to the total for all TACs.

Values in **BOLD** exceed thresholds of significance.

Source: CDM, 2005.
Prepared by: CDM

5. A new exhibit, **Exhibit 4.4-1**, is added following page IV-135 of the Draft EIR. Please see the following new exhibit.
6. The first sentence of the fourth paragraph on page IV-136 of the Draft EIR is hereby revised as follows:

Project-related incremental non-cancer chronic hazard indices associated with the SAIP are provided in **Table 4.4-2**; *the point of maximum impact is illustrated in Exhibit 4.4-1.*

7. The following text and new table are added to the end of the fourth paragraph on page IV-136 of the Draft EIR:

*Acrolein acts as an upper respiratory irritant and exposure to acrolein can lead to itching or burning in the nasal passages and/or eyes. Long term exposure could lead to chronic nasal irritation in sensitive individuals. A more complete description of the potential toxic effects of acrolein are provided in the toxicity profiles provided in Technical Report 14a, Human Health Risk Assessment, of the LAX Master Plan Final EIR. A breakdown of non-cancer chronic health hazards by construction and operational activities is provided in **Table 4.4-2a.***



Source: CDM, 2005
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.4-1

LEGEND

↑ north

— Project Area

Peak Receptor Health Risks and Locations, SAIP 2005

Table 4.4-2a

Incremental Operational and Construction-Related Chronic Non-Cancer Human Health Hazards For Maximally Exposed Individuals for 2005 SAIP Compared to 2003 Baseline

<i>Receptor Type</i>	<i>Operations Related Incremental Non-Cancer Chronic Hazards ^{1/}</i>
<i>Child Resident</i>	5
<i>School Child</i>	2
<i>Adult Resident</i>	1
	<i>Construction Related Incremental Non-Cancer Chronic Hazards ^{2/}</i>
<i>Peak Construction Point</i>	0.004

Notes:

- 1/ *Hazard Indices are totals for all TACs that may affect the respiratory system. This incremental hazard index is essentially equal to the total for all the TACs.*
- 2/ *Hazard Indices for construction impacts are based on a 1.5 year exposure duration.*

*Values in **BOLD** exceed thresholds of significance.*

Source: CDM, 2005
 Prepared by: CDM

- 8. The first sentence of the sixth paragraph on page IV-136 of the Draft EIR is hereby revised as follows:

Incremental hazards due to acute exposure to acrolein are estimated to range from 1 to 19, with an average of 5, for selected grid nodes within the study area, as shown in **Table 4.4-3**; *the point of maximum impact is illustrated in Exhibit 4.4-1.*

- 9. The following is added to the end of the sixth paragraph on page IV-136 of the Draft EIR:

Short-term exposure might cause mild irritation in particularly sensitive individuals when concentrations start to exceed the acute REL. A more complete description of the potential toxic effects of acrolein are provided in the toxicity profiles provided in Technical Report 14a, Human Health Risk Assessment, of the LAX Master Plan Final EIR.

Section 4.5, Noise

Many of the changes made to the Noise Section are the result of updates to noise sensitive sites. The remainder were made in response to requests for clarification of data and in response to typographical errors.

- 1. The sixth sentence of the second paragraph on page IV-143 of the Draft EIR is hereby revised as follows:

The 2003 conditions are used as the most recent full calendar year for which aircraft data were available before the date of the ~~August~~ ~~July~~ 2004 Notice of Preparation (NOP).

- 2. The first sentence of the first paragraph on page IV-156 of the Draft EIR is hereby revised as follows:

Construction traffic noise was evaluated by comparing the *Project (2005) number of vehicles (including SAIP construction vehicle traffic)* ~~number of construction vehicles~~

anticipated to use the SAIP haul routes to the 2005 Adjusted Baseline traffic levels. The 2005 Adjusted Baseline is a hypothetical scenario that combines Baseline volumes of traffic with the growth from all sources other than the Project and is the basis of comparison under CEQA for determining potentially significant traffic impact resulting from the Project. The comparison of "with project" conditions to an "adjusted baseline" condition is consistent with the methodology used in the LAX Master Plan Final EIR and the requirements set forth in the Draft L.A. CEQA Thresholds Guide, May 1998 (page I.2-6). ~~and~~ The amount of noise energy produced by ~~these~~ the additional vehicles was then compared with the amount of noise energy that would be required to reach the significance thresholds.

- The fifth sentence of the last paragraph on page IV-156, first paragraph on page IV-157 of the Draft EIR is hereby revised as follows:

Impacts were then identified on the basis of exceeding the CEQA thresholds compared to 2003 Baseline ambient noise levels.

- The last sentence of the first paragraph on page IV-157 of the Draft EIR is hereby revised as follows:

This rate of reduction of distance is consistent with what was used for the LAX Master Plan Final EIR construction noise evaluation, and accounts for the presence of vegetation (grass, trees, and landscaping) and obstructions between the construction site and nearby noise-sensitive facilities.

- Exhibit 4.5-5** on page IV-159 of the Draft EIR has been revised. Please see the following revised exhibit.

- Table 4.5-1** on page IV-160 of the Draft EIR is hereby revised as follows:

Table 4.5-1

Summary Noise Exposure Effects: 2003 Baseline Conditions^{1/}

Noise Level Range	Total Acreage ^{2/}	Total Acreage over Land ^{2/}	Off-Airport Area (Acres) ^{2/}	Total Dwellings ^{3/}	Estimated Population ^{3/}	Non-Residential Noise-Sensitive Parcels
2003 Baseline						
65 to 70 CNEL	6,721	2,597	2,073	10,135	31,338	40 37
70 to 75 CNEL	3,460	1,807	602	2,876	10,648	15
75 CNEL and higher	2,015	1,867	67	80	322	1
Total 65 CNEL and higher	12,196	6,271	2,742	13,091	42,308	56 53

Notes:

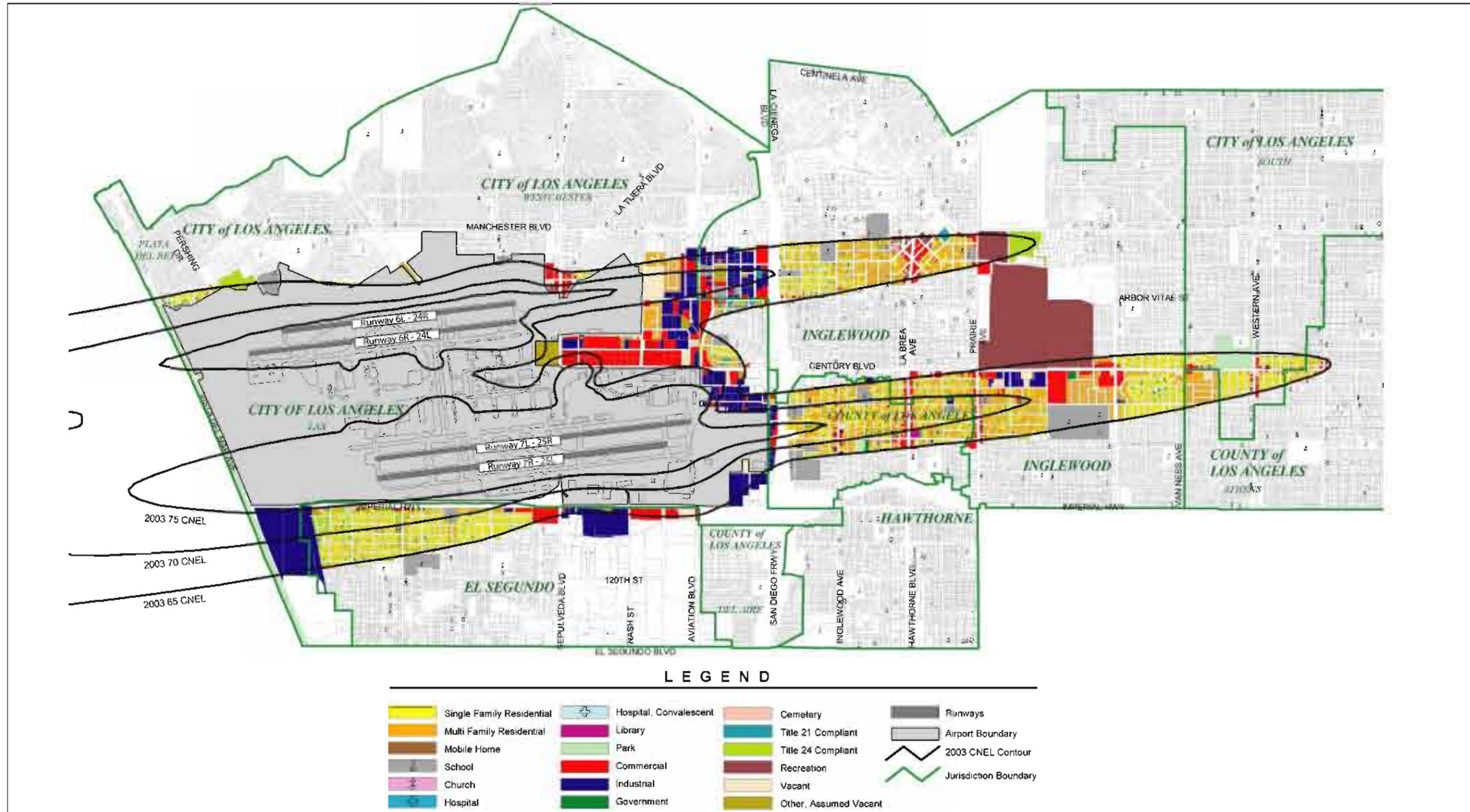
1/ Values determined via noise contour overlay on GIS parcel data.

2/ Acreage totals may not add due to rounding.

3/ Population and dwelling unit information for 2003 conditions is reported using year 2000 Census database.

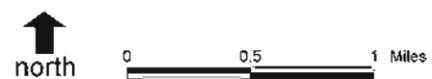
Source: Ricondo and Associates Inc., 2004. Based on LAWA NMD 4th Quarter 2003 INM input and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates Inc., 2004



Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; LAWA, 2003 - 2003 INM input; Ricondo & Associates, Inc., 2004-2003 INM contour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-5



2003 Baseline CNEL Aircraft Noise Exposure Area

7. **Table 4.5-4** on page IV-162 of the Draft EIR is hereby revised as follows.

Table 4.5-4 (1 of 3)

2003 Baseline Conditions: Residential and Noise-Sensitive Properties by Jurisdiction ^{1/2/3/}

	LA City	LA County	El Segundo	Inglewood	Total
65 to 70 CNEL					
Residential					
Single-Family					
Units	546	359	834	1,404	3,143
Acres	79.4	52.3	124.3	200.4	456.4
Population	1,444	1,497	1,668	4,937	9,546
Multi-Family					
Units	1,261	1,204	303	4,224	6,992
Acres	44.7	75.7	14.7	198.7	333.8
Population	2,984	4,498	729	13,581	21,792
Total Residential					
Units	1,807	1,563	1,137	5,628	10,135
Acres	124.1	128.0	139.0	399.1	790.2
Population	4,428	5,995	2,397	18,518	31,338
Non-Residential Noise-Sensitive Uses					
Schools					
Number	5-4	2	1	10	18-47
Acres	21.5	24.4	19.9	106.2	172.0
Churches					
Number	6-4	2	2	7	17-45
Acres	1.7-4.5	1.2	0.6	4.1	7.6-16.7
Hospitals					
Number	0	0	0	0	0
Acres	0	0	0	0	0
Hospitals/Convalescent					
Number	0	0	0	0	0
Acres	0.0	0.0	0.0	0.0	0.0
Parks					
Number	3	1	0	0	4
Acres	132.6	3.7	0.0	0.0	136.3
Libraries					
Number	1	0	0	0	1
Acres	0.2	0.0	0.0	0.0	0.2
Total Noise-Sensitive Facilities					
Number	15-12	5	3	17	40-37
Acres	156.0-155.8	29.3	20.5	110.3	316.1-315.9
Total Noise-Sensitive Area (Acres)	280.1-279.9	157.3	159.5	509.4	1106.3-1106.4

8. The second sentence of the third paragraph on page IV-165 of the Draft EIR is hereby revised as follows:

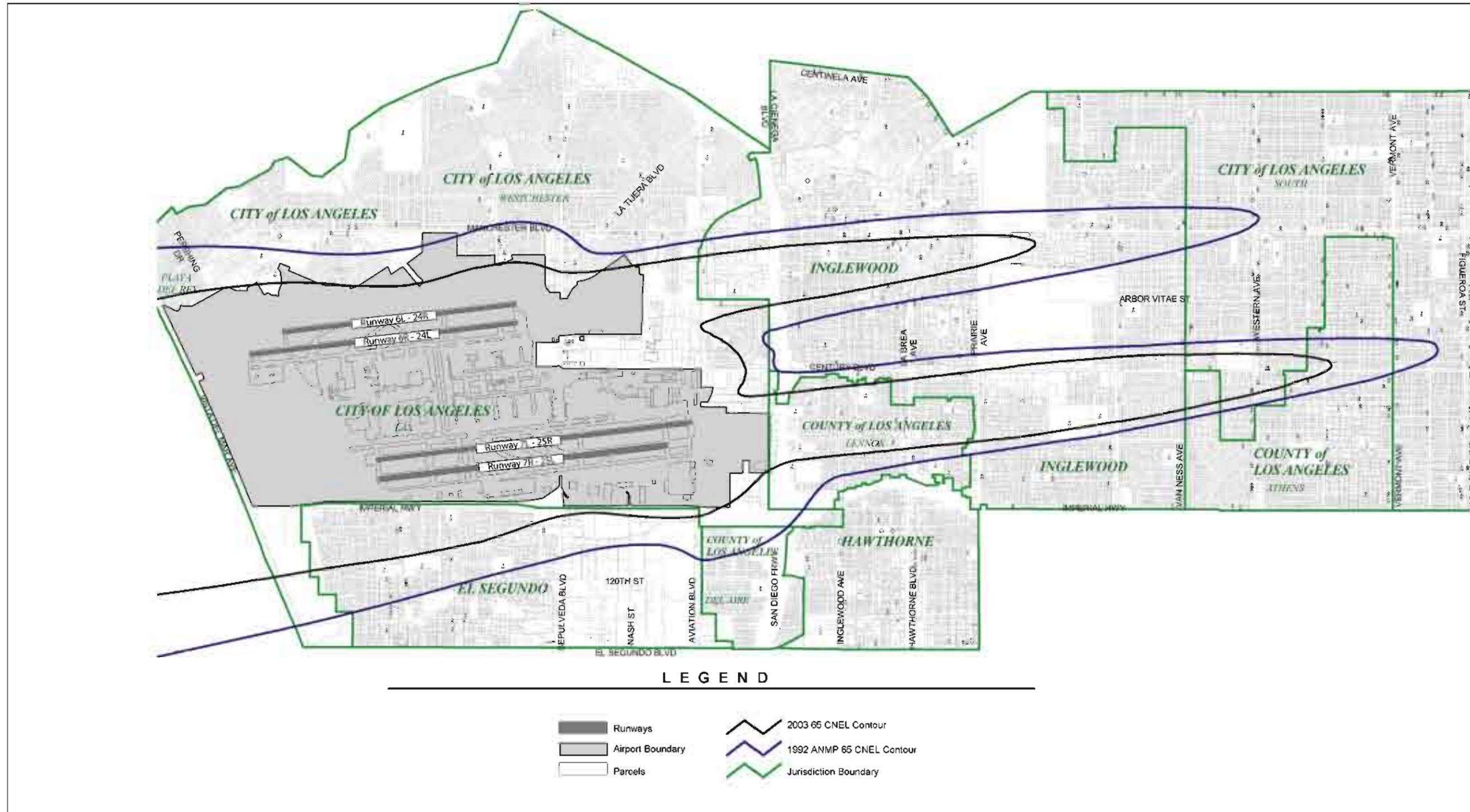
The airport is currently operating under a variance, which became effective on *June 21, 2005* ~~March 21, 2001~~.

9. **Exhibit 4.5-6** on page IV-166 of the Draft EIR has been revised. Please see the following revised exhibit.

10. The fourth paragraph on page IV-167 of the Draft EIR is hereby revised as follows:

Table 4.5-6 lists the computed values for the range of hourly $L_{eq(h)}$ values at each school during an average school day. Shaded rows indicate schools that were calculated to have sustained $L_{eq(h)}$ levels above 35 dBA, indicating the potential for classroom teaching interruption. Nine public and *eleven* ~~nine~~ private schools were identified as potential sites where aircraft noise may exceed 35 dBA $L_{eq(h)}$ levels. *Three schools are* ~~One school~~ *is* located in the City of Los Angeles, six are located in the County of Los Angeles, 10 are located in the City of Inglewood, and one is located in the City of El Segundo. The hourly $L_{eq(h)}$ levels inside the ~~20~~ *18* affected schools ranged from ~~35.0~~ *35.3* dBA to a maximum projected level of 41.9 dBA.

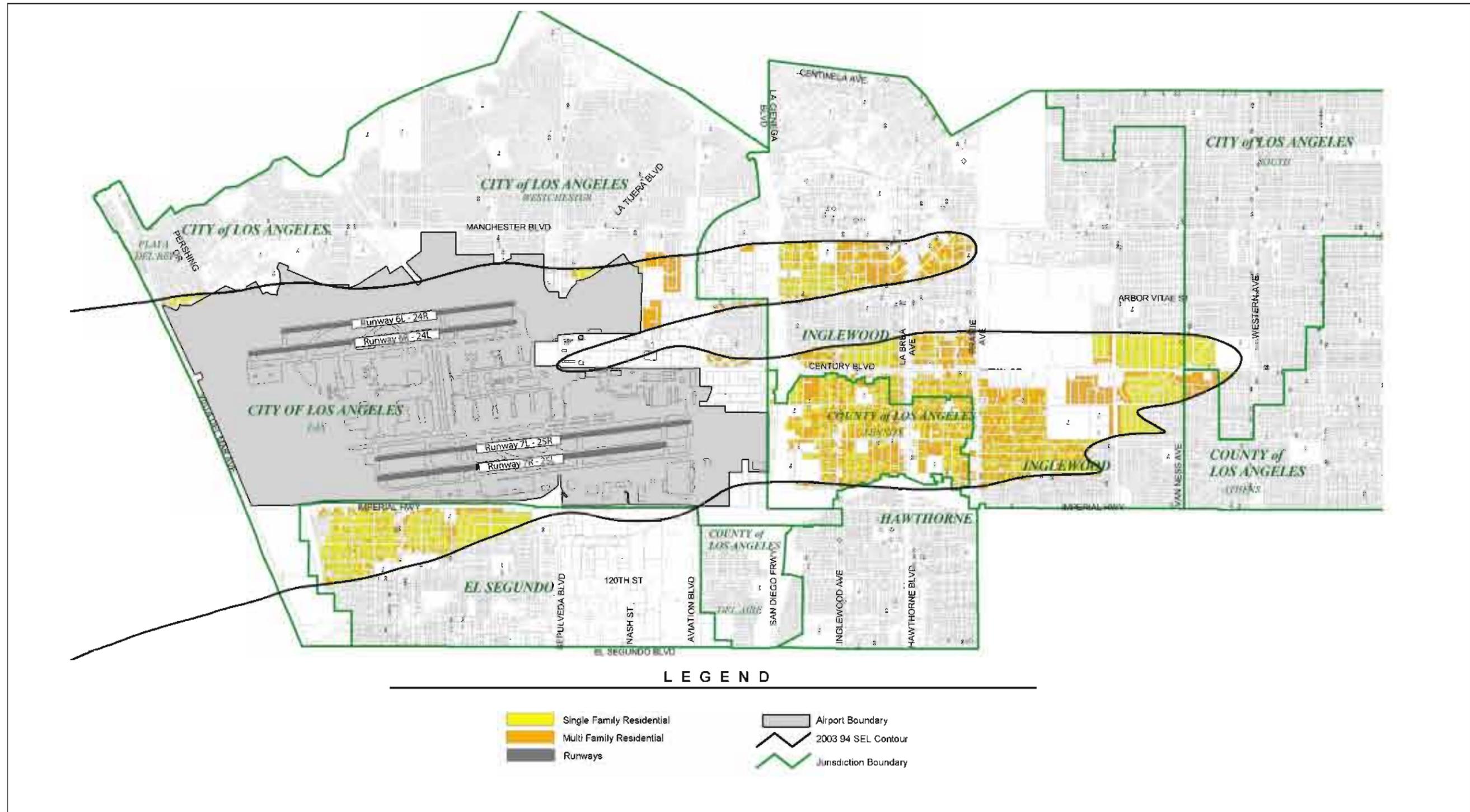
11. **Exhibit 4.5-7** on page IV-168 of the Draft EIR has been revised. Please see the following revised exhibit.



Source: PCR Inc. 2002 - GIS datasets and mapping; LAWA, 2003 - 2003 INM input and 1992 ANMP contour; Ricondo & Associates, Inc., 2004-2003 INM contour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-6

**CNEL Aircraft Noise Exposure Area:
 LAWA 1992 ANMP Boundary Compared to 2003 Baseline Condition**



Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; LAWA, 2003 - 2003 INM input; Wyle Laboratories, 2004 - 2003 94 SEL contour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-7



**92 dBA Nighttime SEL Noise Exposure Area:
 2003 Baseline Conditions**

12. **Table 4.5-6 (3 of 3)** on page IV-172 of the Draft EIR is hereby revised as follows:

Table 4.5-6 (3 of 3)

Average Hourly L_{eq} at Study Area Schools: 2003 Baseline Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	ANSI 35 $L_{eq(h)}$ ^{3/}
PVS086	Ruth Cooper	LA City	36351	8881	28.2
PVS087	Samuel Amerson	LA County	32298	-1596	26.5
PVS091	St Eugene's Catholic School	LA City	27180	2649	30.1
PVS092	St Marys Academy of LA	Inglewood	18568	9623	21.2
PVS093	St. Anastasia School	LA City	-5793	5899	28.5
PVS099	Twyla Lang	LA City	22860	11024	18.9
PVS101	Verna Nelson	LA City	29432	-911	31.0
PVS103	Westchester Lutheran Church	LA City	3278	9736	22.2
PVS104	Westchester Neighborhood School	LA City	9240	3525	37.2
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	18.6
PVS106	Calvary Christian School	Inglewood	26663	6419	32.9
PVS107	Escuela de Montessori	LA City	3658	5088	32.2
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	33.8
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	28.5
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	24.4
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	20.0
PVS115	Century Community Charter School	Inglewood	15907	3499	31.0
PVS116	California Technical Union High School	LA City	30035	1171	35.0
PVS117	Ruby's Christian Academy	LA City	30486	1003	35.0
PVS138	Loyola Marymount University	LA City	-2901	10004	20.5
PBS114	University of West Los Angeles	Inglewood	9739	3976	39.4
PBS116	University of West Los Angeles	Inglewood	8575	4739	40.0

Notes:

- 1/ Shaded rows indicate schools that were calculated to have sustained $L_{eq(h)}$ levels above 35 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ Noise levels are computed by converting 24-hour exterior L_{eq} data to 8-hour exterior L_{eq} data by adding 4.8 L_{eq} to the computed 24-hour level, then subtracting 28.8 decibels for exterior to interior attenuation produced by average construction techniques at area schools (as measured by LAWA), resulting in interior hourly L_{eq} values.

Source: Ricondo and Associates, 2004. Based on LAWA NMD 4th Quarter 2003 INM input; PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates, Inc.

13. Subsection 4.5.3.2 on page IV-173 of the Draft EIR is hereby revised as follows:

4.5.3.2.1 Construction Traffic Noise

As previously discussed in Subsection 4.5.2.3 above, the 2005 Adjusted Baseline is a hypothetical scenario that combines Baseline volumes of traffic with the growth from all

sources other than the Project and is the basis of comparison under CEQA for determining potentially significant construction traffic noise impacts resulting from the Project. Refer to Subsections 4.2.6.1 and 4.2.6.2 for detailed information related to the 2005 Adjusted Baseline traffic assumptions and estimated traffic volumes, respectively. For construction traffic noise, two of the 19 intersections evaluated along the designated haul routes are close to nearby noise-sensitive uses: Intersection 1 (Imperial Highway and Pershing Drive) and Intersection 2 (Imperial Highway and Main Street). Due to the close proximity and highest count of Project (2005) traffic counts (refer to Table 4.2-12) of these two intersections, Intersections 1 and 2 were the only intersections evaluated for this analysis. During the Employee A.M. peak hour of traffic, the estimated 2005 Baseline traffic for Intersection 1 was 1,900. The Delivery peak hour was 2,390, and the Employee P.M. peak hour was 2,530. Traffic volumes at Intersection 2 for Employee A.M., Delivery and Employee P.M. peak hours were 2,510, 2,910 and 3,100 respectively. These peak hour traffic volume levels will serve as the CEQA baseline comparison to Project-related construction traffic noise impacts. As discussed in Subsection 4.5.4.2, an increase of 5 dBA $L_{eq(h)}$ (average hourly noise level) in peak hours between 2005 Adjusted Baseline and Project (2005) traffic noise levels is considered a significant impact for CEQA purposes. As discussed in Subsection 4.5.2.3, peak hour traffic levels would need to increase three-fold or more in order to increase noise levels 5 dBA $L_{eq(h)}$ or more.

4.5.3.2.2 Construction Equipment Noise

A 2003 Baseline ambient (non-construction) CNEL value was estimated for the areas south of the airport containing noise-sensitive land uses that are within close proximity to the Runway 7R-25L construction site. The representative ambient level was used to determine if project-related construction noise from the site could cause significant noise impacts in noise-sensitive areas. For this analysis, ambient noise levels included sounds from all sources except construction. As illustrated on **Exhibit 4.5-8**, LAWA permanent noise monitoring site ES2 was chosen to provide a conservative representation of an ambient noise level based on (1) the availability of long-term measurement data, (2) aircraft correlated CNELs, and (3) location of noise-sensitive areas closest to the SAIP construction site. Measured noise levels provided by noise monitoring site ES2 were considered conservative due to the site's proximity to the south airfield compared to the closest noise-sensitive sites located along Imperial Highway. Noise-sensitive sites near Imperial Highway would experience higher ambient community noise levels than sites near ES2, because of Imperial Highway traffic and aircraft noise, which create an acoustical environment that would likely make construction noise undetectable by the human ear.

For this analysis, the ambient (non-construction) noise level is the combination of community and aircraft noise (total CNEL) measured at site ES2. The total CNEL for 2003 measured by the LAWA Noise Management Division at site ES2, and therefore the assumed 2003 Baseline noise level at that site for the purposes of this EIR was 70.4 CNEL.

The area of El Segundo around site ES2 is contained within the area exposed to aircraft noise of 65 CNEL and higher (depicted on Exhibit 4.5-5 above). For comparison purposes, single-event aircraft noise levels in these areas can be expected to have peak noise levels above 85 dBA (based on 2003 Baseline INM calculations at noise-sensitive sites closest to the construction site-intersection of Imperial Avenue and Main Street).

Other noise sources such as vehicles and gardening equipment typical to urban areas are also found in these areas.

14. **Table 4.5-7 (3 of 3)** on page IV-176 of the Draft EIR is hereby revised as follows:

Table 4.5-7 (3 of 3)

84 dBA L_{max} Exterior (55 dBA Interior) Threshold for Teaching Large Groups: 2003 Baseline Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	84 dBA L _{max}		
					TA ^{3/}	NA ^{3/}	Avg. D ^{3/}
PVS086	Ruth Cooper	LA City	36351	8881	0.0	N/A	N/A
PVS087	Samuel Amerson	LA County	32298	-1596	0.0	N/A	N/A
PVS091	St Eugene's Catholic School	LA City	27180	2649	0.0	N/A	N/A
PVS092	St Marys Academy of LA	Inglewood	18568	9623	0.0	N/A	N/A
PVS093	St. Anastasia School	LA City	-5793	5899	0.0	N/A	N/A
PVS099	Twyla Lang	LA City	22860	11024	0.0	N/A	N/A
PVS101	Verna Nelson	LA City	29432	-911	0.0	N/A	N/A
PVS103	Westchester Lutheran Church	LA City	3278	9736	0.0	N/A	N/A
PVS104	Westchester Neighborhood School	LA City	9240	3525	0.8	16.6	2.9
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	0.0	N/A	N/A
PVS106	Calvary Christian School	Inglewood	26663	6419	0.0	N/A	N/A
PVS107	Escuela de Montessori	LA City	3658	5088	0.0	N/A	N/A
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	0.0	N/A	N/A
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	0.0	N/A	N/A
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	0.0	N/A	N/A
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	0.0	N/A	N/A
PVS115	Century Community Charter School	Inglewood	15907	3499	0.0	N/A	N/A
PVS116	California Technical Union High School	LA City	30035	1171	0.0	N/A	N/A
PVS117	Ruby's Christian Academy	LA City	30486	1003	0.0	N/A	N/A
PVS138	Loyola Marymount University	LA City	-2901	10004	0.0	N/A	N/A
PBS114	University of West Los Angeles	Inglewood	9739	3976	1.3	24.9	3.1
PBS116	University of West Los Angeles	Inglewood	8575	4739	1.9	36.7	3.1

Notes:

- 1/ Shaded rows indicate schools that were calculated to have L_{max} levels above 84 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal.) This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ N/A = Not applicable.
 TA = Total number of minutes per school day that aircraft noise exceeds exterior 84 dBA L_{max}.
 NA = Number of events that exceed exterior 84 dBA L_{max} during an average school day.
 Avg. D = Average duration in seconds of each event that exceeds exterior 84 dBA L_{max} during the average school day.

Source: Ricondo and Associates, 2004. Based on LAWA NMD 4th Quarter 2003 INM input; PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, Inc.

15. Table 4.5-8 (3 of 3) on page IV-179 of the Draft EIR is hereby revised as follows:

Table 4.5-8 (3 of 3)

94 dBA L_{max} Exterior (65 dBA Interior) Threshold for Teaching Small Groups: 2003 Baseline Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	94 dBA L _{max}		
					TA ^{3/}	NA ^{3/}	Avg.D ^{3/}
PVS086	Ruth Cooper	LA City	36351	8881	0.0	N/A	N/A
PVS087	Samuel Amerson	LA County	32298	-1596	0.0	N/A	N/A
PVS091	St Eugene's Catholic School	LA City	27180	2649	0.0	N/A	N/A
PVS092	St Marys Academy of LA	Inglewood	18568	9623	0.0	N/A	N/A
PVS093	St. Anastasia School	LA City	-5793	5899	0.0	N/A	N/A
PVS099	Twyla Lang	LA City	22860	11024	0.0	N/A	N/A
PVS101	Verna Nelson	LA City	29432	-911	0.0	N/A	N/A
PVS103	Westchester Lutheran Church	LA City	3278	9736	0.0	N/A	N/A
PVS104	Westchester Neighborhood School	LA City	9240	3525	0.0	N/A	N/A
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	0.0	N/A	N/A
PVS106	Calvary Christian School	Inglewood	26663	6419	0.0	N/A	N/A
PVS107	Escuela de Montessori	LA City	3658	5088	0.0	N/A	N/A
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	0.0	N/A	N/A
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	0.0	N/A	N/A
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	0.0	N/A	N/A
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	0.0	N/A	N/A
PVS115	Century Community Charter School	Inglewood	15907	3499	0.0	N/A	N/A
PVS116	California Technical Union High School	LA City	30035	1171	0.0	N/A	N/A
PVS117	Ruby's Christian Academy	LA City	30486	1003	0.0	N/A	N/A
PVS138	Loyola Marymount University	LA City	-2901	10004	0.0	N/A	N/A
PBS114	University of West Los Angeles	Inglewood	9739	3976	0.0	N/A	N/A
PBS116	University of West Los Angeles	Inglewood	8575	4739	0.0	N/A	N/A

Notes:

- 1/ Shaded rows indicate schools that were calculated to have L_{max} levels above 94 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal.) This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ N/A = Not applicable.
 TA = Total number of minutes per school day that aircraft noise exceeds exterior 94 dBA L_{max}.
 NA = Number of events that exceed exterior 94 dBA L_{max} during an average school day.
 Avg. D = Average duration in seconds of each event that exceeds exterior 94 dBA L_{max} during the average school day.

Source: Ricondo and Associates, 2004. Based on LAWA NMD 4th Quarter 2003 INM input; PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, Inc.

16. **Table 4.5-9** on page IV-180 of the Draft EIR is hereby revised as follows:

Table 4.5-9

Schools Exposed to Significant Interior Single Event Noise Levels: 2003 Baseline Conditions

Impact Category	2003 Baseline
Exposure \geq 55 dBA (L_{max})	
Number of Public Schools	8
Number of Private Schools	10
Average Number of Events/School	28.6
Average Seconds/Event	3.0
Exposure \geq 65 dBA (L_{max})	
Number of Public Schools	0
Number of Private Schools	0
Exposure \geq 35 dBA ($L_{eq(h)}$)	
Number of Public Schools	9
Number of Private Schools	119

Source: Ricondo and Associates, 2004. Based on LAWA NMD 4th Quarter 2003 INM input; PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, Inc.

17. **Exhibit 4.5-8** on page IV-181 of the Draft EIR has been revised. Please see the following revised exhibit.

18. The third paragraph on page IV-182 of the Draft EIR is hereby revised as follows:

The first two thresholds are derived from the California Airports Noise Standards (Title 21). The third threshold is derived from FAA Order 5050.4A and FAA Order 1050.1E and is accepted here as a CEQA threshold of significance to describe significant increases in noise exposure. *Under Title 21 of the California Code of Regulations, such uses (with the exception of uses with habitable exterior areas newly exposed to 75 CNEL or greater) may nonetheless be rendered compatible based on the Noise Standards stated in California Code of Regulations, Title 21, section 5014. (Please see Table M-7b, California Incompatible Land Use Guidelines in Aircraft Noise Impact Areas).*

19. The first full paragraph on page IV-184 of the Draft EIR is hereby revised as follows:

These thresholds were adopted because they address the physical impacts of the environment and because they are contained in the *Draft L.A. CEQA Thresholds Guide* and in the Traffic Noise Analysis Protocol, respectively (October 1998, California Department of Transportation). *For purposes of this EIR, baseline conditions were considered to be projected traffic levels without Project (2005)-generated traffic (per the Draft L.A. CEQA Thresholds Guide, May 1998, page I.2-6), known as the 2005 Adjusted Baseline condition.* The second threshold does not apply to this analysis, because the SAIP does not have a new highway component. The threshold is consistent with that used for the LAX Master Plan Final EIR.

20. The first bullet under subsection 4.5.5.2 on page IV-187 of the Draft EIR is hereby revised as follows:

- **MM-N-7: Construction Noise Control Plan** – A Construction Noise Control Plan will be prepared by the construction contractor to provide feasible measures to ensure

that calculated on-airport construction noise exposure levels in this EIR are maintained throughout the construction period for the SAIP. The Contractor ~~may~~ will be required to ~~subcontract with an acoustical engineer who would~~ develop construction site-specific noise control and monitoring plans, baseline noise data measurements, a compliance measurement plan, and equipment requirements. *LAWA will provide, through the SAIP Construction Manager, acoustical engineers to review and monitor the Construction Noise Control Plan developed by the Contractor and compliance with that plan.*

21. The third bullet (i.e., Mitigation Measure MM-N-9) under subsection 4.5.5.2 on page IV-188 of the Draft EIR is hereby revised as follows:

- **MM-N-9: Equipment Replacement** – As a method to mitigate potential noise impacts, source control is considered to be the most effective. Source control limits noise emissions by use of equipment that emits the least noise possible. Noisy equipment shall be replaced with quieter equipment when technically and economically feasible. Quieter equipment includes heavy diesel-powered machinery with mufflers installed.

Because construction type and activity may vary throughout the term of the project, the following additional techniques under this measure may be identified in the Construction Noise Control Plan to ensure that calculated on-airport construction noise levels are maintained:

- ~~Maintain the equipment activity factor at or below those specified in Table 4.5-24. This factor represents the percent of time that activity levels emit 86 dBA L_{eq} 50 feet from the site of activity.~~
- Based on potential criteria set in a LAWA construction noise guideline document, contract specifications may require that absolute noise criteria applied to generic classes of heavy equipment to limit noise emissions be met. Criteria should involve typical equipment-specific A-weighted L_{max} noise limits at a reference distance of 50 feet. Such limits should be achievable and feasible, but conservatively set as low as possible to ensure that equipment is well maintained, power-settings are efficiently used, and additional techniques to control source noise, such as the use of newer equipment, are required. Periodic compliance testing and surveying by LAWA staff may be conducted to confirm that equipment on site is well maintained and meets noise emission guidelines.
- One of the greatest single sources of construction noise complaints as rated by 50 state Departments of Transportation was the use of loud backup alarms on construction vehicles operating at night¹⁵. To minimize the potential for such an impact, all project-related vehicles may be equipped with either manually adjustable or ambient-sensitive backup alarms. The alarms would emit a signal that is between 5 to 10 dBA above ambient levels.

¹⁵ Schexnayder, Cliff, PhD., PE. Effective Noise Control During Nighttime Construction. May 10, 2002.



Source: Psomas, April 2000 - land use data: PCR Inc., 2002 - GIS datasets and mapping; HNTB 2004 - staging area and construction site boundaries, Ricondo & Associates, Inc., 2004
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-8



South Airfield Improvement Project Construction Site and Staging Area

22. The fourth bullet under subsection 4.5.5.2 on page IV-188 of the Draft EIR is hereby revised as follows:

- **MM-N-10: Construction Scheduling** – As a method of source control, noise emissions from heavy construction equipment would be limited during noise-sensitive hours. The timing and/or sequencing of the noisiest on-site construction activities shall avoid sensitive times of the day, as much as feasible (9 p.m. to 7 a.m. Monday – Friday; *before 8 p.m. to or after 6 p.m. on Saturday*; anytime on Sunday or holidays).

23. **Exhibit 4.5-9** on page IV-192 of the Draft EIR has been revised. Please see the following revised exhibit.

24. **Table 4.5-12** on page IV-193 of the Draft EIR is hereby revised as follows:

Table 4.5-12

Population and Dwelling Counts: Project (2005) Conditions^{1/}

Noise Level Range	Total Acreage Over Land ^{1/}	Off-Airport Area (Acres) ^{2/}	Total Dwellings	Estimated Population	Non-Residential Noise-Sensitive Parcels
2005 SAIP					
65 to 70 CNEL	2,980.0	2,547.0	12,034	35,264	67 63
70 to 75 CNEL	2,046.0	779.7	3,981	14,426	12
75 CNEL and higher	1,926.0	72.7	176	756	4
65 CNEL and higher	6,952.0	3,399.4	16,191	50,446	83 79

Notes:

1/ Values determined via noise contour overlay on GIS parcel data.

2/ Acreage totals may not add due to rounding.

Source: Ricondo and Associates, 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates, 2004

25. The third full paragraph on page IV-193 of the Draft EIR is hereby revised as follows:

~~Forty~~ ~~Thirty-eight~~ schools were located within the area expected to be exposed to aircraft noise of 65 CNEL and higher. ~~Twelve~~ ~~Eleven~~ of these schools are located in the City of Los Angeles and the ~~20~~ ~~19~~ in the City of Inglewood. Seven of these schools are located in the County of Los Angeles and one is located within the City of El Segundo. Of the eight parks that would be exposed to 65 CNEL and higher, five are located within the City of Los Angeles.

26. **Table 4.5-13** on page IV-194 of the Draft EIR is hereby revised as follows:

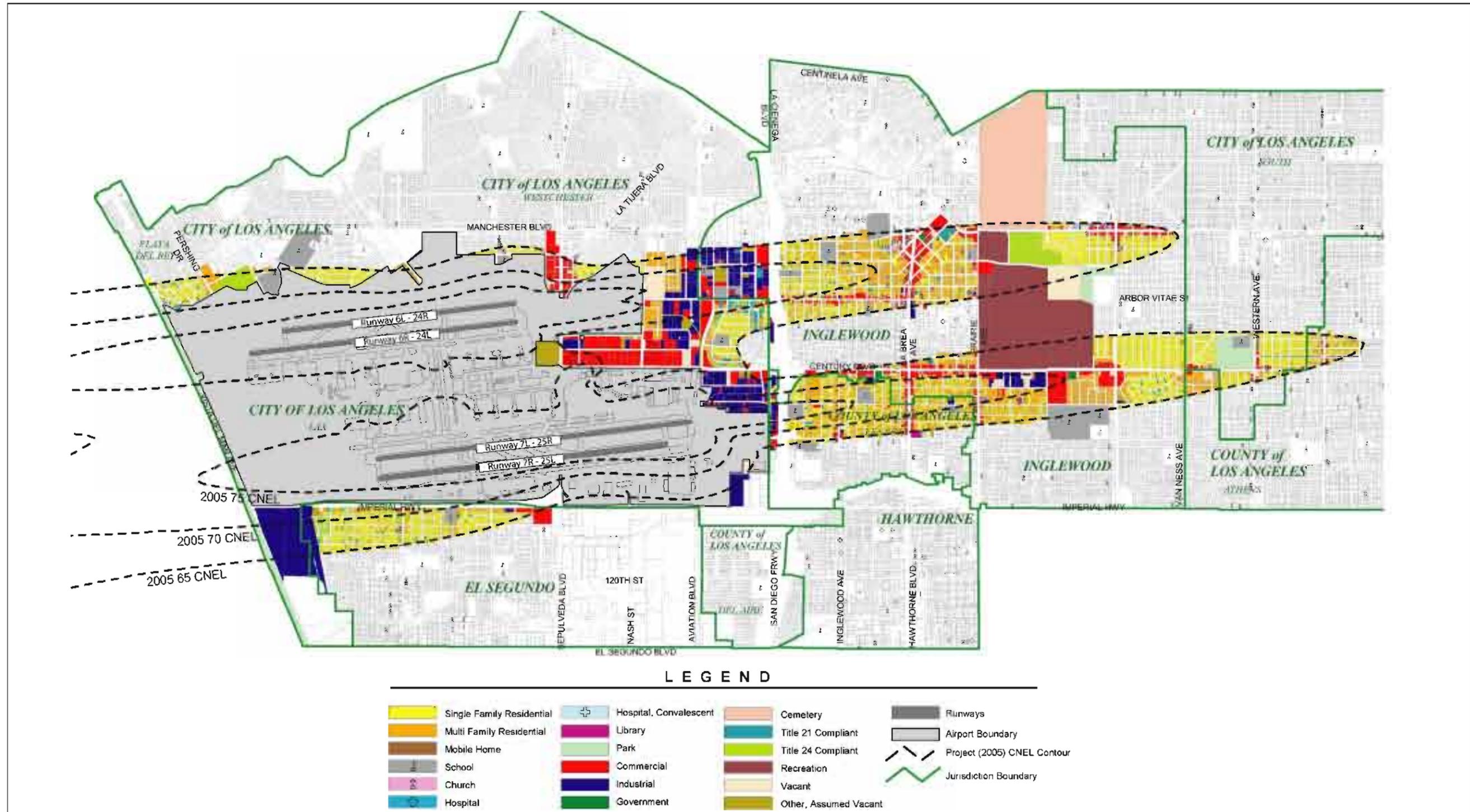
Table 4.5-13 (1 of 3)

Impacts on Residential and Non-Residential Noise-Sensitive Uses: Project (2005) Conditions ^{1/2/3/}					
	LA City	LA County	El Segundo	Inglewood	Total
65 to 70 CNEL					
Residential					
Single-Family					
Units	1,313	421	715	1,736	4,185
Acres	184.8	57.7	105.8	290.2	638.5
Population	3,170	1,738	1,430	5,260	11,598
Multi-Family					
Units	1,133	1,299	411	5,006	7,849
Acres	45.9	73.9	17.1	218.9	355.8
Population	2,552	4,984	976	15,154	23,666
Total Residential					
Units	2,446	1,720	1,126	6,742	12,034
Acres	230.7	131.6	122.9	509.1	994.3
Population	5,722	6,722	2,406	20,414	35,264
Non-Residential Noise-Sensitive Uses					
Schools					
Number	11 40	2	0	16 45	29 27
Acres	34.4	6.2	0.0	97.5 97.3	138.1 137.9
Churches					
Number	5 3	3	2	15	25 23
Acres	2.0 4.9	0.8	0.6	8.9	12.3 12.2
Hospitals					
Number	0	0	0	2	2
Acres	0.0	0.0	0.0	1.2	1.2
Hospitals/Convalescent Facilities					
Number	0	0	0	4	4
Acres	0.0	0.0	0.0	2.4	2.4
Parks					
Number	2	0	0	2	4
Acres	42.7	0	0	20.1	62.8
Libraries					
Number	1	1	0	1	3
Acres	0.2	2.4	0.0	0.1	2.7
Total Noise-Sensitive Facilities					
Number	19 46	6	2	40 39	67 63
Acres	79.3 79.2	9.4	0.6	130.2 130.0	219.5 219.2
Total Noise-Sensitive Area (Acres)					
	310 309.9	141.0	123.5	639.3 639.4	1213.8 1,213.5

27. The seventh sentence on page IV-197 of the Draft EIR is hereby revised as follows:

Approximately 676 dwelling units, 2,085 residents, and *five* ~~four~~ non-resident noise-sensitive uses may be newly exposed to 65 CNEL and higher during the construction period.

28. **Exhibit 4.5-10** on page IV-198 of the Draft EIR has been revised. Please see the following revised exhibit.

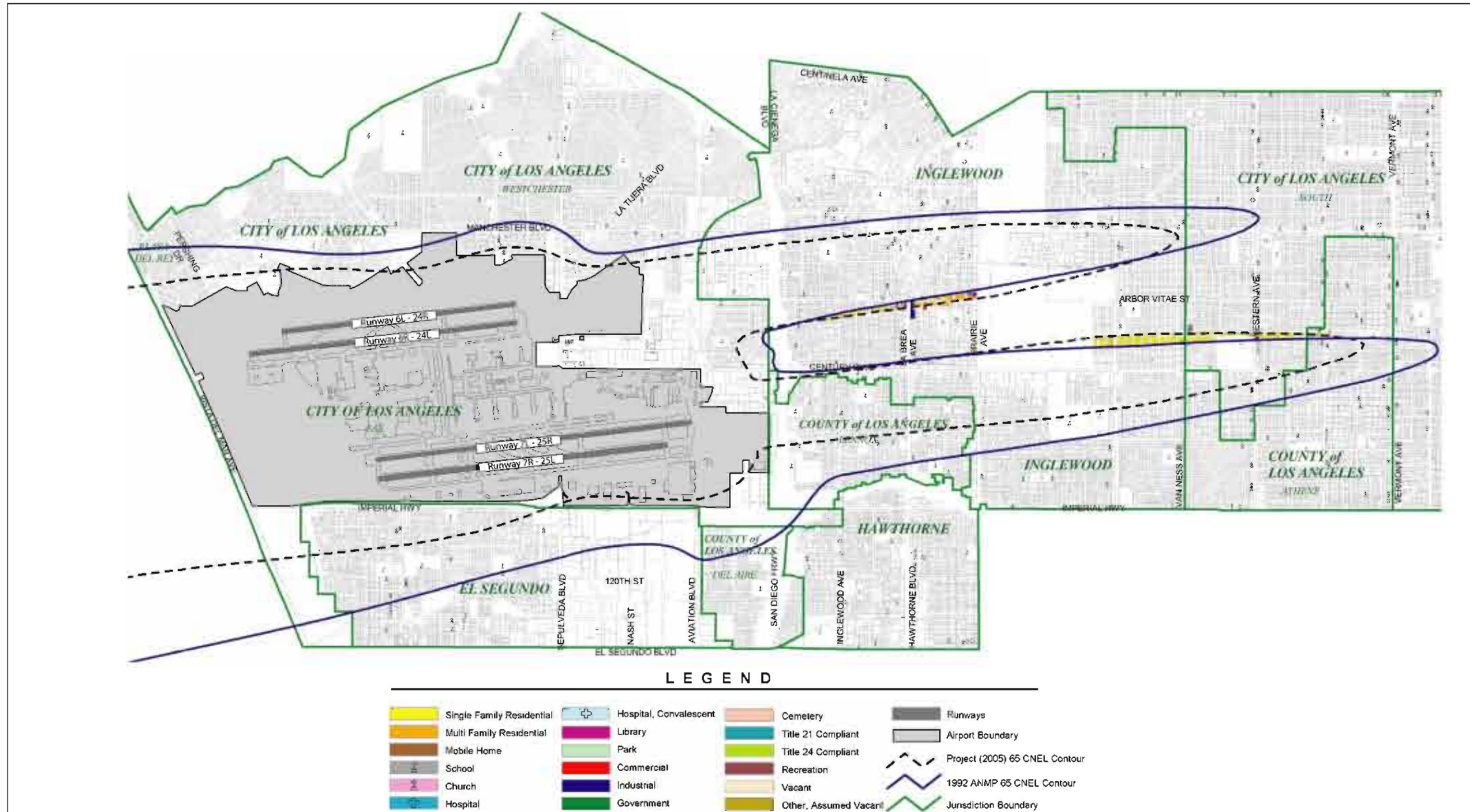


Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; Landrum & Brown, Inc., 2002-2005 Alternative D INM input; Ricondo & Associates, Inc., 2004 - Project (2005) INM contour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-9



**CNEL Noise Exposure Areas:
 Project (2005) Condition**



Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; LAWA, 2003 - 1992 ANMP contour; Ricondo & Associates, Inc., 2004 - Project (2005) INM countour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-10



**CNEL Noise Exposure Areas:
 Comparison Between 1992 ANMP and Project (2005)**

29. **Table 4.5-14** on page IV-199 of the Draft EIR is hereby revised as follows:

Table 4.5-14

Newly Exposed Residential and Non-Residential Noise-Sensitive Facilities: Project (2005) Compared with 1992 ANMP Boundary^{1/}

<u>Impact Category</u>	<u>LA City</u>	<u>LA County</u>	<u>EI Segundo</u>	<u>Inglewood</u>	<u>Total</u>
65 CNEL increase from 1992 (ANMP)					
Newly Exposed Units	149	19	0	508	676
Newly Exposed Population	441	57	0	1,587	2,085
Newly Exposed Noise-Sensitive Uses	1	0	0	43	54

Notes:

1/ Values determined via noise contour overlay on GIS parcel data.

Source: Ricondo & Associates, Inc., 2005. GIS data-Landrum & Brown and PCR Inc., 2002

Prepared by: Ricondo & Associates, Inc.

30. **Exhibit 4.5-11** on page IV-200 of the Draft EIR has been revised. Please see the following revised exhibit.

31. The second sentence of the second paragraph on page IV-201 of the Draft EIR is hereby revised as follows:

The number of acres, dwelling units, population, and non-residential noise-sensitive facilities exposed to aircraft noise of 65 CNEL and higher are expected to increase by 657 acres, 3,100 residential units, 8,138 persons, and 27 ~~26~~ additional non-residential noise-sensitive facilities under Project (2005) conditions compared with 2003 Baseline conditions.

32. The second sentence of the fourth paragraph on page IV-201 of the Draft EIR is hereby revised as follows:

As reported in the table, 4,714 dwelling units, 13,452 persons, and 35 ~~34~~ non-residential noise-sensitive locations within the area exposed to 65 CNEL and higher may be newly affected during the SAIP construction period compared with 2003 Baseline conditions.

33. **Table 4.5-15** on page IV-202 of the Draft EIR is hereby revised as follows:

Table 4.5-15

Population and Dwelling Counts: Project (2005) Compared with 2003 Baseline^{1/}

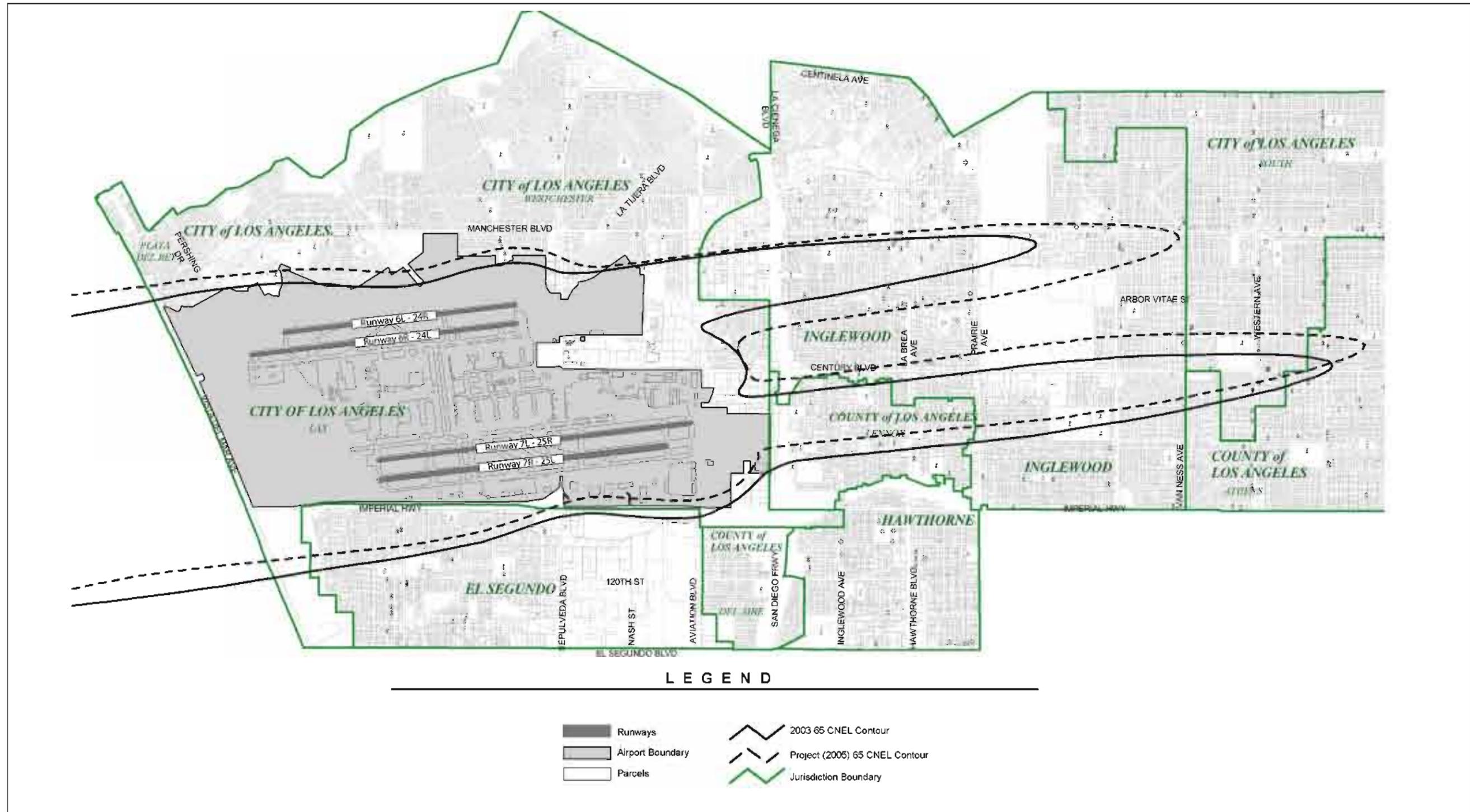
Noise Level Range	Total Acreage Over Land ^{4/}	Off-Airport Area (Acres) ^{4/}	Total Dwellings	Estimated Population	Non-Residential Noise-Sensitive Parcels
Project (2005)					
65 to 70 CNEL	2,980.0	2,547.0	12,034	35,264	67 63
70 to 75 CNEL	2,046.0	779.7	3,981	14,426	12
75 CNEL and higher	1,926.0	72.7	176	756	4
Total 65 CNEL and higher	6,952.0	3,399.4	16,191	50,446	83 79
2003 Baseline ^{1/}					
65-70 CNEL	2,597.0	2,073.0	10,135	31,338	40 37
70-75 CNEL	1,807.0	602.0	2,876	10,648	15
75 ≥ CNEL	1,867.0	67.0	80	322	1
Total 65 CNEL and higher	6,271.0	2,742.0	13,091	42,308	56 53
Difference Between 2003 Baseline and SAIP ^{2/, 3/}					
65-70 CNEL	383.0	474.0	1,899	3,926	27 26
70-75 CNEL	239.0	177.7	1105	3,778	-3
75 ≥ CNEL	59.0	5.7	96	434	3
Total 65 CNEL and higher	681.0	657.4	3,100	8,138	27 26

Notes:

- 1/ Values determined via noise contour overlay on GIS parcel data.
- 2/ A positive value indicates that the Project (2005) reflects an increase in the impacts compared with 2003 Baseline; a negative number indicates that Project (2005) reflects a decrease in impacts. The values reported in each cell above indicate a net difference. Some jurisdictions may experience increased noise levels while other areas may experience a decrease.
- 3/ Population and dwelling unit information for 2003 Baseline conditions is reported using a year 2000 Census data base.
- 4/ Acreage totals may not equal the sum of individual values.

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo & Associates, Inc.

34. **Exhibit 4.5-12** on page IV-203 of the Draft EIR has been revised. Please see the following revised exhibit.

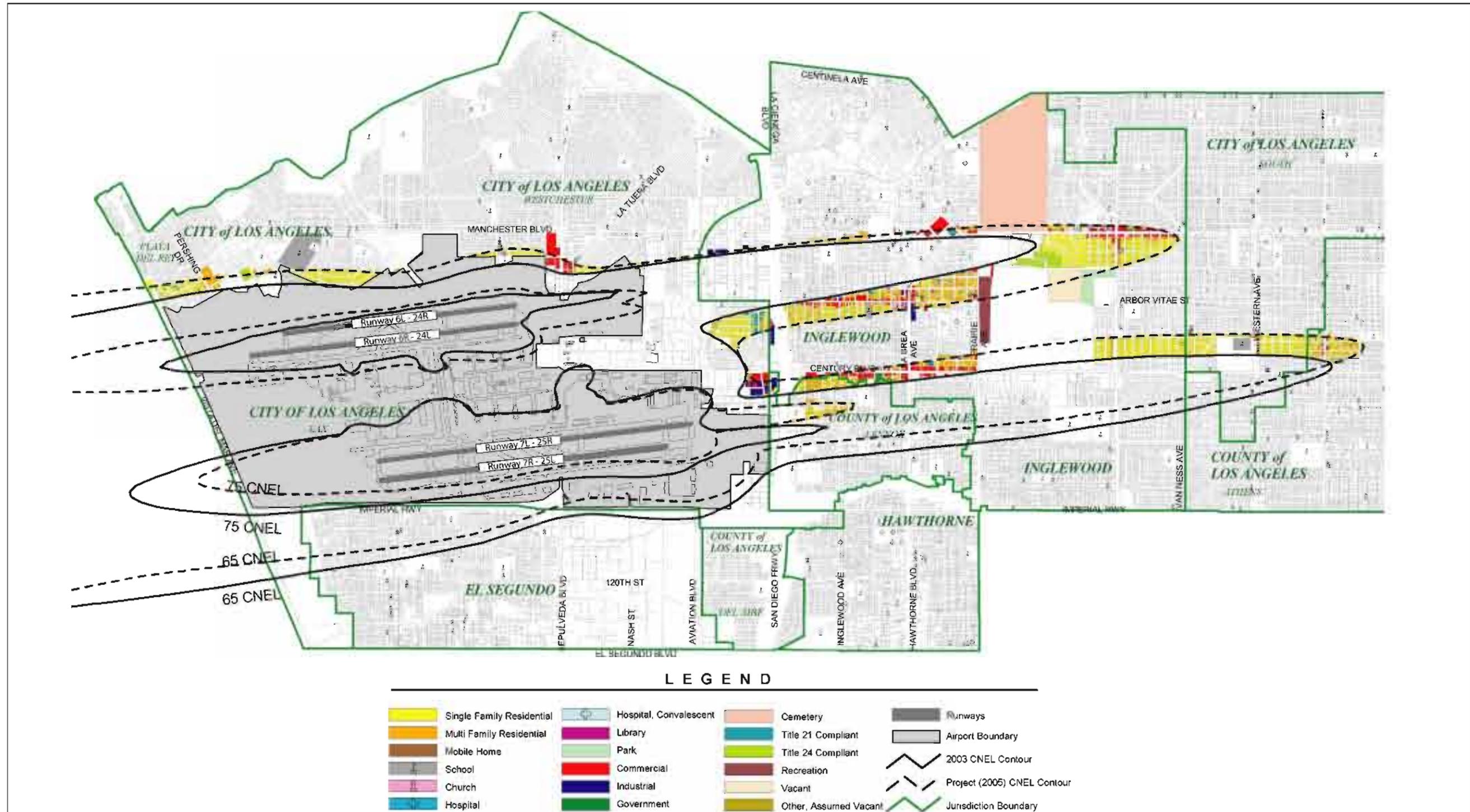


Source: PCR Inc., 2002 - GIS dataset and mapping; Ricondo & Associates, Inc., 2004 - 2003 and Project (2005) INM contours
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-11



**CNEL Noise Exposure Areas:
 Comparison Between 2003 Baseline Conditions and Project (2005)**



Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS dataset and mapping, Ricondo & Associates, Inc., 2004 - 2003 and Project (2005) INM countours
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-12



**CNEL Noise Exposure Contours:
 Location of Newly Impacted Land Use**

35. Table 4.5-16 on page IV-204 of the Draft EIR is hereby revised as follows:

Table 4.5-16 (1 of 2)

Newly Impacted Residential and Noise Sensitive Land Use Areas: Project (2005) Compared with 2003 Baseline Conditions^{1/}

	<u>LA City</u>	<u>LA County</u>	<u>El Segundo</u>	<u>Inglewood</u>	<u>Total</u>
65 CNEL and higher					
Residential					
Single-Family					
Units	867	182	0	982	2,031
Acres	120.8	23.7	0.0	174.9	319.4
Population	2,026	605	0	2,878	5,509
Multi-Family					
Units	394	554	0	1,735	2,683
Acres	17.2	20.4	0.0	77.0	114.6
Population	803	1,967	0	5,173	7,943
Total Residential					
Units	1,261	736	0	2,717	4,714
Acres	138.0	44.1	0.0	251.9	434.0
Population	2,829	2,572	0	8,051	13,452
Noise-Sensitive Uses					
Schools					
Number	7	0	0	87	1544
Acres	13.5	0.0	0.0	5.048	18.5483
Churches					
Number	1	2	0	9	12
Acres	0.6	0.5	0.0	4.8	5.9
Hospitals					
Number	0	0	0	2	2
Acres	0.0	0.0	0.0	1.2	1.2
Hospitals/Convalescent Facilities					
Number	0	0	0	3	3
Acres	0.0	0.0	0.0	1.8	1.8
Parks					
Number	0	0	0	2	2
Acres	0.0	0.0	0.0	20.1	20.1
Libraries					
Number	0	0	0	1	1
Acres	0.0	0.0	0.0	0.1	0.1
Total Noise-Sensitive Facilities					
Number	8	2	0	2524	3534
Acres	14.1	0.5	0.0	3332.8	47.6474
Total Noise-Sensitive Area (Acres)	152.1	44.6	0.0	284.9284.7	481.6481.4

36. The sixth sentence of the second paragraph on page IV-205 of the Draft EIR is hereby revised as follows:

As depicted, 9,278 dwelling units, 28,574 persons, and 51 50 non-resident noise-sensitive locations may experience significant increases in noise during the SAIP construction period.

37. **Table 4.5-17** on page IV-206 of the Draft EIR is hereby revised as follows:

Table 4.5-17

Residential and Noise Sensitive Land Use Areas Exposed to 1.5 CNEL Increase: Project (2005) Compared with 2003 Baseline Conditions^{1/}

	<u>LA City</u>	<u>LA County</u>	<u>EI Segundo</u>	<u>Inglewood</u>	<u>Hawthorne</u>	<u>Total</u>
65 CNEL and Higher						
Residential						
Single-Family						
Units	963	322	0	1,725	0	3,010
Acres	133.3	46.3	0.0	278.0	0.0	457.6
Population	2,247	1,384	0	5,705	0	9,336
Multi-Family						
Units	1,190	971	0	4,107	0	6,268
Acres	41.0	43.0	0.0	178.6	0.0	262.6
Population	2,653	3,764	0	12,821	0	19,238
Total Residential						
Units	2,153	1,293	0	5,832	0	9,278
Acres	174.3	89.3	0.0	456.6	0.0	720.2
Population	4,900	5,148	0	18,526	0	28,574
Noise-Sensitive Uses						
Schools						
Number	9	3	0	13 42	0	25 24
Acres	29.4	15	0	31.0 30.8	0	75.4 75.2
Churches						
Number	1	1	0	13	0	15
Acres	0.6	0.3	0	8.3	0	9.2
Hospitals						
Number	0	0	0	2	0	2
Acres	0	0	0	1.2	0	1.2
Hospitals/Convalescent Facilities						
Number	0	0	0	3	0	3
Acres	0	0	0	1.8	0	1.8
Parks						
Number	4	0	0	1	0	5
Acres	183.3	0	0	19.8	0	203.1
Libraries						
Number	0	0	0	1	0	1
Acres	0	0	0	0.1	0	0.1
Total Noise-Sensitive Facilities						
Number	14 45	4 5	0	33 34	0	51 50
Acres	213.3	15.3	0	62.2 62	0	284.3
Total Noise-Sensitive Area (Acres)						
	387.6	104.6	0	518.8 518.6	0	1,004.5

Notes:

1/ Values determined via noise contour overlay on GIS parcel data.

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

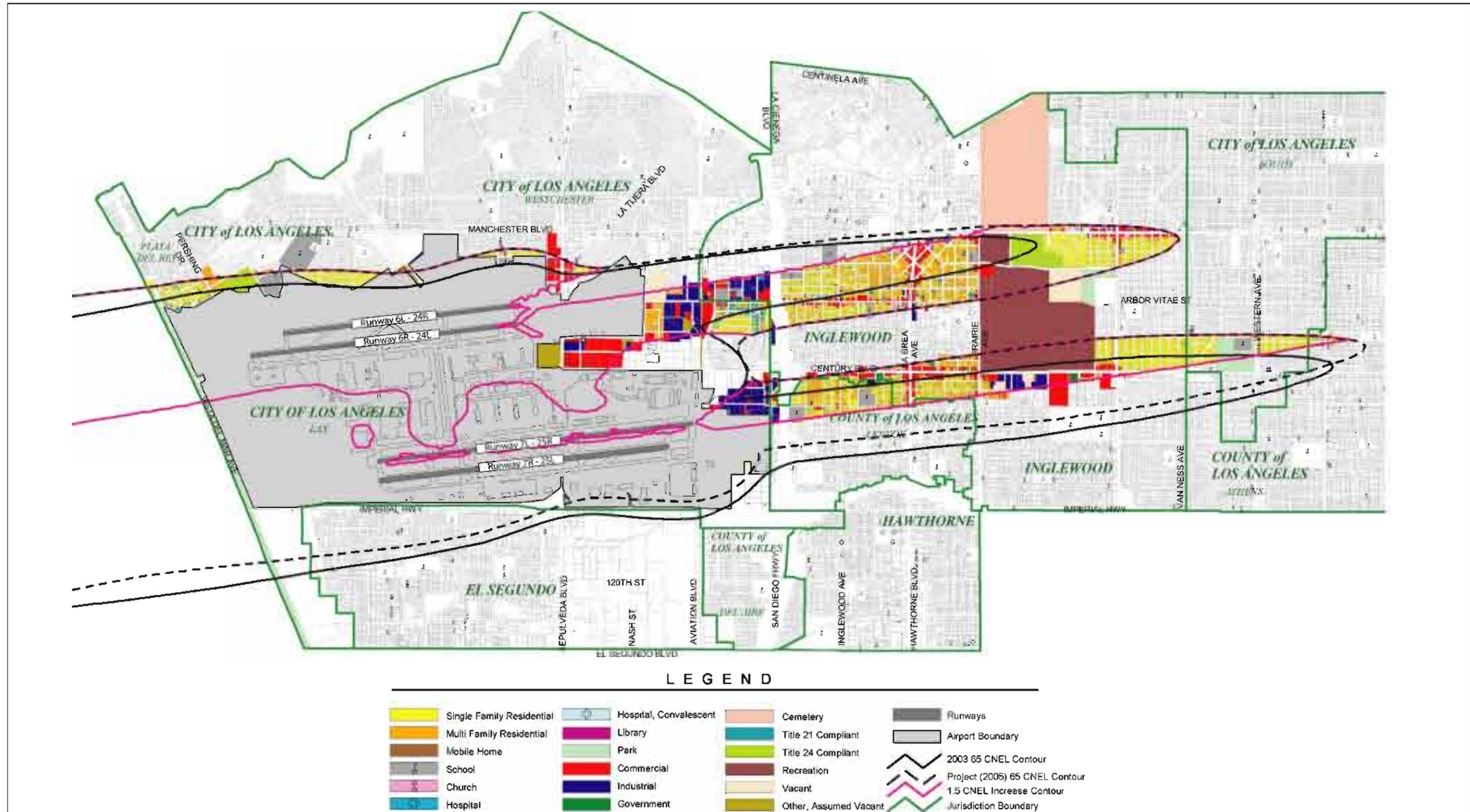
Prepared by: Ricondo & Associates, Inc.

38. **Exhibit 4.5-13** on page IV-207 of the Draft EIR has been revised. Please see the following revised exhibit.
39. **Exhibit 4.5-14** on page IV-210 of the Draft EIR has been revised. Please see the following revised exhibit.
40. **Exhibit 4.5-15** on page IV-211 of the Draft EIR has been revised. Please see the following revised exhibit.
41. **Table 4.5-19 (3 of 3)** on page IV-215 of the Draft EIR is hereby revised. Please see the following revised table.
42. **Table 4.5-20 (3 of 3)** on page IV-218 of the Draft EIR is hereby revised. Please see the following revised table.
43. **Table 4.5-21 (3 of 3)** on page IV-221 of the Draft EIR is hereby revised. Please see the following revised table.
44. The fourth sentence of the third paragraph on page IV-222 of the Draft EIR is hereby revised as follows:

Based on the steady-state 35 $L_{eq(h)}$ threshold, *three two* schools identified as affected in 2003 would no longer be affected under Project (2005) conditions, but three other schools would be newly affected.

45. **Table 4.5-22** on page IV-223 of the Draft EIR is hereby revised. Please see the following revised table.
46. **Table 4.5-23** on page IV-224 of the Draft EIR is hereby revised. Please see the following revised table.

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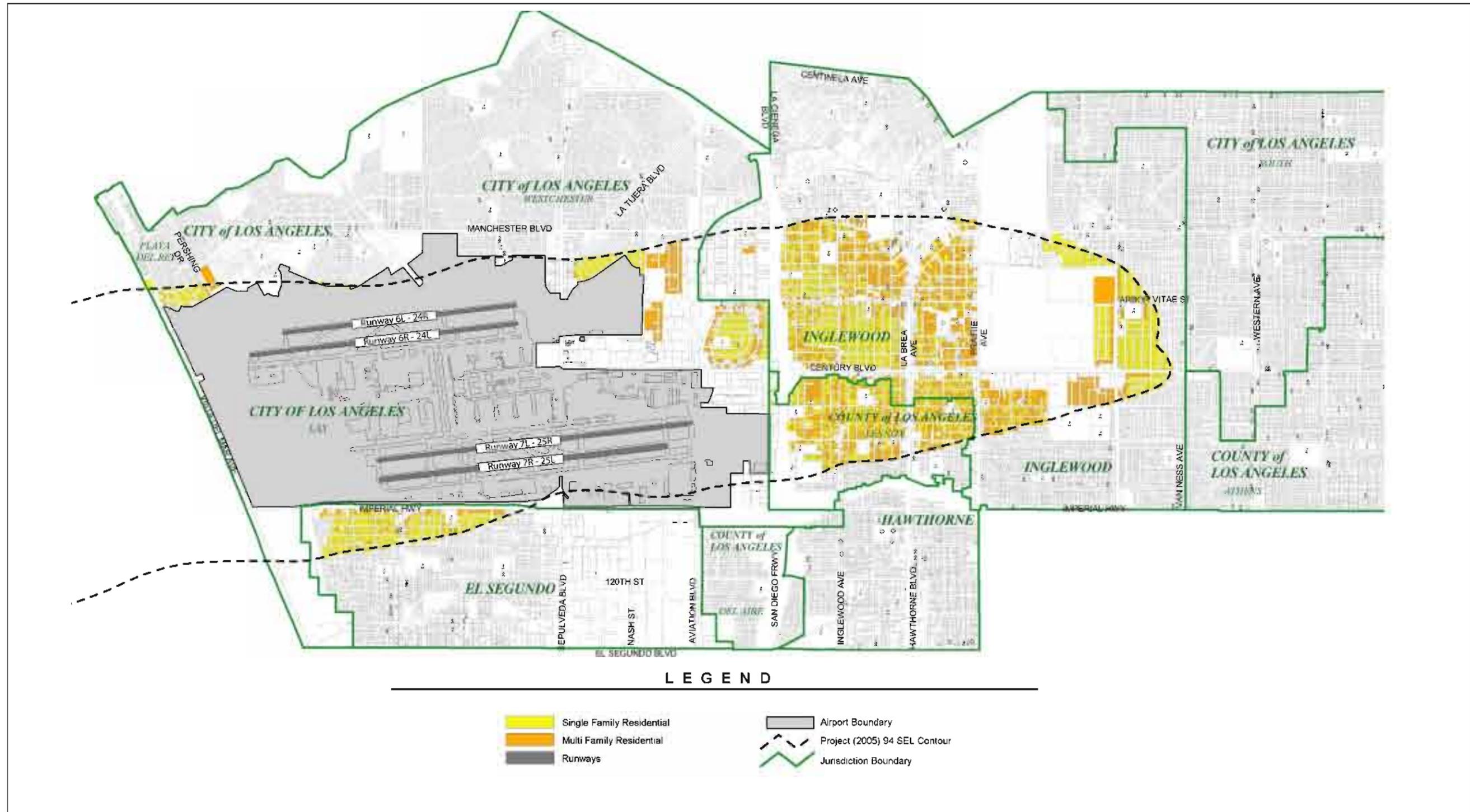


Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; Ricondo & Associates, Inc., 2004 - 2003 Baseline INM countour, Project (2005) INM countour and 1.5 CNEL Increase INM countour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-13



**1.5 CNEL or Greater Aircraft Noise Exposure Increase Area:
 Comparison Between 2003 Baseline and Project (2005) Conditions**

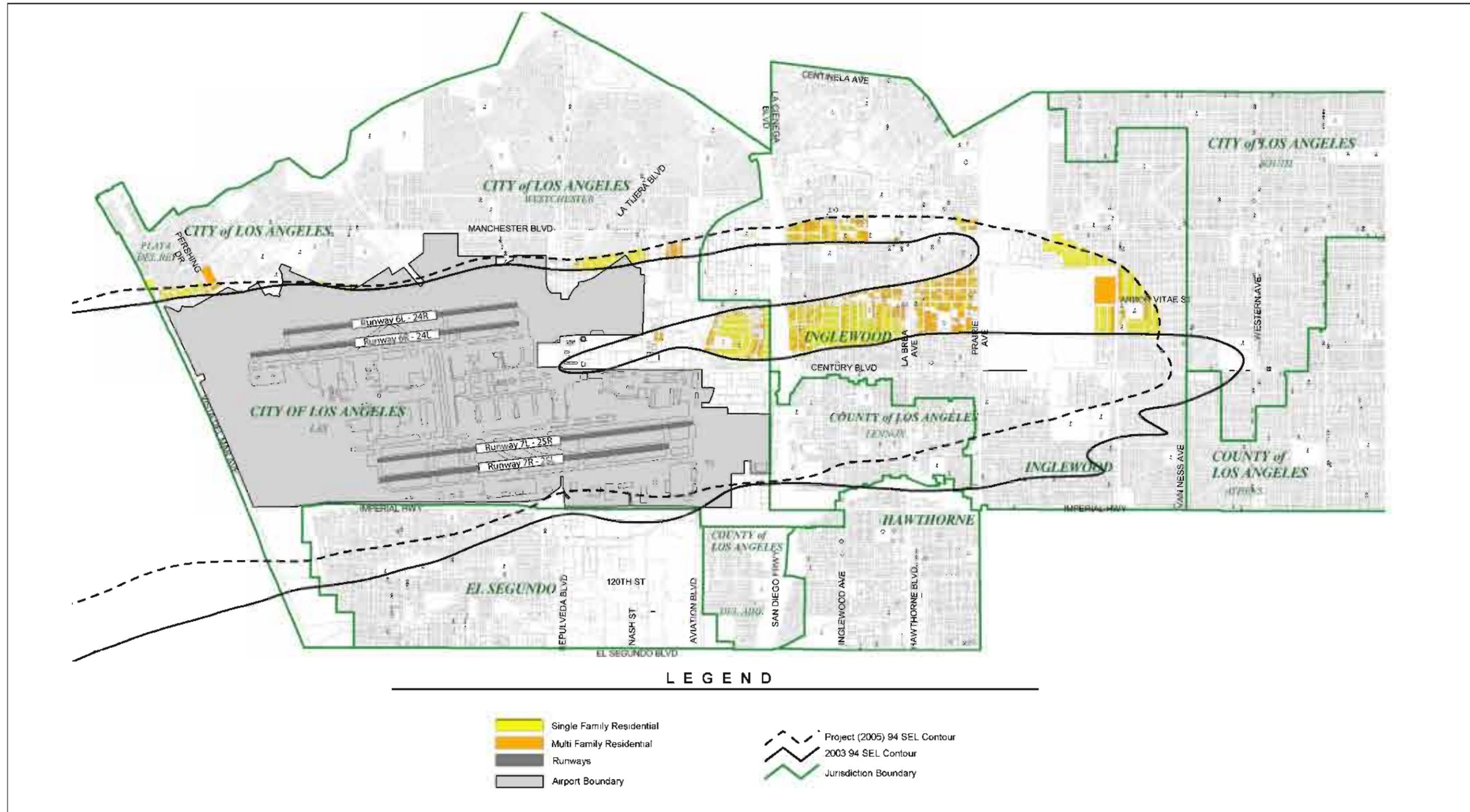


Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; Landrum & Brown, Inc., 2002 - 2005 Alternative D input; Wyle Laboratories, 2004 - Project (2005) 94 SEL contour
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-14



**94 dBa Single Event Noise Effects on Awakenings:
 Project (2005) Conditions**



Source: Psomas, April 2000 - land use data; PCR Inc., 2002 - GIS datasets and mapping; Wyle Laboratories, 2004 - 2003 and Project (2005) 94 SEL contours
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-15



**92 dBa Single Event Noise Effects on Awakenings:
 Project (2005) Conditions Compared to 2003 Baseline Conditions**

Table 4.5-19 (3 of 3)Average Hourly L_{eq} at Study Area Schools: Project (2005) Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	ANSI 35 $L_{eq(h)}$ ^{3/}
PVS086	Ruth Cooper	LA City	36351	8881	28.6
PVS087	Samuel Amerson	LA County	32298	-1596	24.6
PVS091	St Eugene's Catholic School	LA City	27180	2649	33.6
PVS092	St Marys Academy of LA	Inglewood	18568	9623	22.0
PVS093	St. Anastasia School	LA City	-5793	5899	30.2
PVS099	Twyla Lang	LA City	22860	11024	19.6
PVS101	Verna Nelson	LA City	29432	-911	28.6
PVS103	Westchester Lutheran Church	LA City	3278	9736	24.1
PVS104	Westchester Neighborhood School	LA City	9240	3525	39.5
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	17.5
PVS106	Calvary Christian School	Inglewood	26663	6419	33.6
PVS107	Escuela de Montessori	LA City	3658	5088	34.2
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	34.3
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	31.2
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	24.2
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	19.3
PVS115	Century Community Charter School	Inglewood	15907	3499	33.3
PVS116	California Technical Union High School	LA City	30035	1171	35.4
PVS117	Ruby's Christian Academy	LA City	30486	1003	34.7
PVS138	Loyola Marymount University	LA City	-2901	10004	22.2
PBS114	University of West Los Angeles	Inglewood	9739	3976	40.7
PBS116	University of West Los Angeles	Inglewood	8575	4739	40.3

Notes:

- 1/ Shaded rows indicate schools that were calculated to have sustained $L_{eq(h)}$ levels above 35 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal.) This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ Noise levels are computed by converting 24-hour exterior L_{eq} data to 8-hour exterior L_{eq} data by adding 4.8 L_{eq} to the computed 24-hour level, then subtracting 28.8 decibels for exterior to interior attenuation produced by average construction techniques at area schools (as measured by LAWA), resulting in interior hourly L_{eq} values.

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates, Inc.

Table 4.5-20 (3 of 3)

84 dBA L_{max} Exterior (55 dBA Interior) Threshold for Teaching Large Groups: Project (2005) Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	84 dBA L_{max}		
					TA ^{3/}	NA ^{3/}	Avg.D ^{3/}
PVS084	Raymond Vanyek	LA County	16261	-881	2.3	38.1	3.6
PVS085	Riley & Faye Washington	LA City	32138	10688	0.0	N/A	N/A
PVS086	Ruth Cooper	LA City	36351	8881	0.0	N/A	N/A
PVS087	Samuel Amerson	LA County	32298	-1596	0.0	N/A	N/A
PVS091	St Eugene's Catholic School	LA City	27180	2649	0.0	N/A	N/A
PVS092	St Marys Academy of LA	Inglewood	18568	9623	0.0	N/A	N/A
PVS093	St. Anastasia School	LA City	-5793	5899	0.0	N/A	N/A
PVS099	Twyla Lang	LA City	22860	11024	0.0	N/A	N/A
PVS101	Verna Nelson	LA City	29432	-911	0.0	N/A	N/A
PVS103	Westchester Lutheran Church	LA City	3278	9736	0.0	N/A	N/A
PVS104	Westchester Neighborhood School	LA City	9240	3525	1.6	30.4	3.2
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	0.0	N/A	N/A
PVS106	Calvary Christian School	Inglewood	26663	6419	0.0	N/A	N/A
PVS107	Escuela de Montessori	LA City	3658	5088	0.0	N/A	N/A
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	0.0	N/A	N/A
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	0.0	N/A	N/A
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	0.0	N/A	N/A
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	0.0	N/A	N/A
PVS115	Century Community Charter School	Inglewood	15907	3499	0.0	N/A	N/A
PVS116	California Technical Union High School	LA City	30035	1171	0.0	N/A	N/A
PVS117	Ruby's Christian Academy	LA City	30486	1003	0.0	N/A	N/A
PVS138	Loyola Marymount University	LA City	-2901	10004	0.0	N/A	N/A
PBS114	University of West Los Angeles	Inglewood	9739	3976	2.1	55.0	2.3
PBS116	University of West Los Angeles	Inglewood	8575	4739	1.2	46.6	1.5

Notes:

- 1/ Shaded rows indicate schools that were calculated to have L_{max} levels above 84 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal.) This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ N/A = Not applicable.
 TA = Total number of minutes per school day that aircraft noise exceeds exterior 84 dBA L_{max} .
 NA = Number of events that exceed exterior 84 dBA L_{max} during an average school day.
 Avg. D = Average duration in seconds of each event that exceeds exterior 84 dBA L_{max} during the average school day.

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, Inc.

Table 4.5-21 (3 of 3)

94 dBA L_{max} Exterior (65 dBA Interior) Threshold for Teaching Small Groups: Project (2005) Conditions^{1/}

Grid Cell ID	School Name	Jurisdiction	X Dist. (feet) ^{2/}	Y Dist. (feet) ^{2/}	94 dBA L_{max}		
					TA ^{3/}	NA ^{3/}	Avg.D ^{3/}
PVS084	Raymond Vanyek	LA County	16261	-881	0.0	N/A	N/A
PVS085	Riley & Faye Washington	LA City	32138	10688	0.0	N/A	N/A
PVS086	Ruth Cooper	LA City	36351	8881	0.0	N/A	N/A
PVS087	Samuel Amerson	LA County	32298	-1596	0.0	N/A	N/A
PVS091	St Eugene's Catholic School	LA City	27180	2649	0.0	N/A	N/A
PVS092	St Marys Academy of LA	Inglewood	18568	9623	0.0	N/A	N/A
PVS093	St. Anastasia School	LA City	-5793	5899	0.0	N/A	N/A
PVS099	Twyla Lang	LA City	22860	11024	0.0	N/A	N/A
PVS101	Verna Nelson	LA City	29432	-911	0.0	N/A	N/A
PVS103	Westchester Lutheran Church	LA City	3278	9736	0.0	N/A	N/A
PVS104	Westchester Neighborhood School	LA City	9240	3525	0.0	N/A	N/A
PVS105	Acacia Baptist School	Hawthorne	14468	-9493	0.0	N/A	N/A
PVS106	Calvary Christian School	Inglewood	26663	6419	0.0	N/A	N/A
PVS107	Escuela de Montessori	LA City	3658	5088	0.0	N/A	N/A
PVS108	Faith Lutheran Church School	Inglewood	23359	6499	0.0	N/A	N/A
PVS109	K-Anthony's Middle School	Inglewood	18639	3216	0.0	N/A	N/A
PVS110	Saint Anthony's Catholic School	El Segundo	-573	-8780	0.0	N/A	N/A
PVS111	St Joseph's Catholic Church School	Hawthorne	16874	-6105	0.0	N/A	N/A
PVS115	Century Community Charter School	Inglewood	15907	3499	0.0	N/A	N/A
PVS116	California Technical Union High School	LA City	30035	1171	0.0	N/A	N/A
PVS117	Ruby's Christian Academy	LA City	30486	1003	0.0	N/A	N/A
PVS138	Loyola Marymount University	LA City	-2901	10004	0.0	N/A	N/A
PBS114	University of West Los Angeles	Inglewood	9739	3976	0.0	N/A	N/A
PBS116	University of West Los Angeles	Inglewood	8575	4739	0.0	N/A	N/A

Notes:

- 1/ Shaded rows indicate schools that were calculated to have L_{max} levels above 94 dBA, indicating the potential for classroom teaching interruption.
- 2/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal.) This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).
- 3/ N/A = Not applicable.
 TA = Total number of minutes per school day that aircraft noise exceeds exterior 94 dBA L_{max} .
 NA = Number of events that exceed exterior 94 dBA L_{max} during an average school day.
 Avg. D = Average duration in seconds of each event that exceeds exterior 94 dBA L_{max} during the average school day.

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates, Inc.

Table 4.5-22

Schools Exposed to Significant Interior Single Event Noise Levels: Project (2005) Compared with 2003 Baseline Conditions

Impact Category	Project (2005)	2003 Baseline	
		Net Change	Newly Exposed
Exposure ≥ 35 dBA (L_{eq(h)})			
Number of Public Schools	9	0	2
Number of Private Schools	1140	04	1
Average L _{eq(h)}	34.0 38.9	1.4 0.7	N/A
Exposure ≥ 55 dBA (L_{max})			
Number of Public Schools	5	-3	0
Number of Private Schools	7	-3	0
Average Number of Events/School	53.9	25.3	N/A
Average Seconds/Event	3.3	0.3	N/A
Exposure ≥ 65 dBA (L_{max})			
Number of Public Schools	2	2	2
Number of Private Schools	1	1	1
Average Number of Events/School	114.8	114.8	N/A
Average Seconds/Event	0.4	0.4	N/A

Note: N/A = Not Applicable

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, Inc.

Table 4.5-23

Listing of Schools Newly Exposed to Noise Thresholds: Project (2005) Compared with 2003 Baseline Conditions

Name	Jurisdiction	Newly Affected	1.5 dB	55 dB	65 dB	35 dB	Grid ID
		65 CNEL	CNEL	L _{MAX}	L _{MAX}	(L _{eq(h)})	
Public (10)							
Beulah Payne Elementary School	Inglewood	X	X				PBS017
Felton Elementary School	LA County		X		X		PBS035
Hillcrest Continuation School	Inglewood		X				PBS047
Jefferson Elementary School	LA County		X		X		PBS055
Kelso Elementary School	Inglewood		X				PBS059
Westchester Washington Community Adult School	LA City		X			X	PBS062
Manhattan Place Elementary School	LA City	X	X			X	PBS101
Oak Street Elementary School	Inglewood		X				PBS105
University of West Los Angeles	Inglewood		X				PBS114
Westchester High School and Magnet Center	LA City	X	X				PBS121
Private (16 45)							
Anthony's Preschool	Inglewood	X	X				PVS028
Debbie's Child Development Center	Inglewood		X				PVS055
Escuela de Montessori	LA City	X	X				PVS107
Faith Lutheran Church School	Inglewood	X	X				PVS108
Inglewood Christian School	Inglewood		X				PVS051
Morningside United Church of Christ School	Inglewood	X	X				PVS073
Paul & Willa Devan School	LA County				X		PVS077
Providence Missionary Baptist School	LA City	X	X			X	PVS081
St. Bernard High School	LA City		X				PVS007
St. Eugene Elementary School	LA City	X	X				PVS004
Tender Care Child Development Center	Inglewood		X				PVS083
Training Research Foundation Headstart	LA City		X				PVS077
Visitation Elementary School	LA City	X	X				PVS011
Westchester Neighborhood School	LA City		X				PVS104
Wiz Child Center	Inglewood	X	X				PVS070
Century Community Charter School	Inglewood	X	X				PVS115
Total schools exposed to noise thresholds: 26							

Source: Ricondo & Associates, Inc., 2004. Based on Landrum & Brown INM analysis of 2005 scenario and PCR, Inc. GIS analysis, April 2004 – LAX Master Plan Final EIR.

Prepared by: Ricondo and Associates, Inc.

47. The first and second sentences of the second paragraph on page IV-225 of the Draft EIR are hereby revised as follows:

If traffic conditions on a road are good (Level of Service-LOS of A or B) $L_{eq(h)}$ sound levels increase at a rate of 3 dBA per doubling of traffic volume. On roads with good traffic conditions, roadway traffic volumes would have to increase at more than a 3-fold rate to reach the CEQA threshold of significance of a 5 dBA $L_{eq(h)}$ increase.

48. The third sentence of the second paragraph on page IV-225 of the Draft EIR is hereby revised as follows:

Several intersections with a LOS of A or B (*including Intersections 1 and 2*) evaluated for the employee morning peak, construction delivery, and employee afternoon peak hour volume did not result in a 3-fold increase of traffic volume between ~~2003~~ 2005 Adjusted Baseline and SAIP levels (*refer to Table 4.2-12 in Section 4.2*).

49. The last sentence of the second paragraph on page IV-225 of the Draft EIR is hereby revised as follows:

Therefore, construction related traffic in areas with good traffic conditions would not exceed the CEQA construction traffic $L_{eq(h)}$ noise threshold.

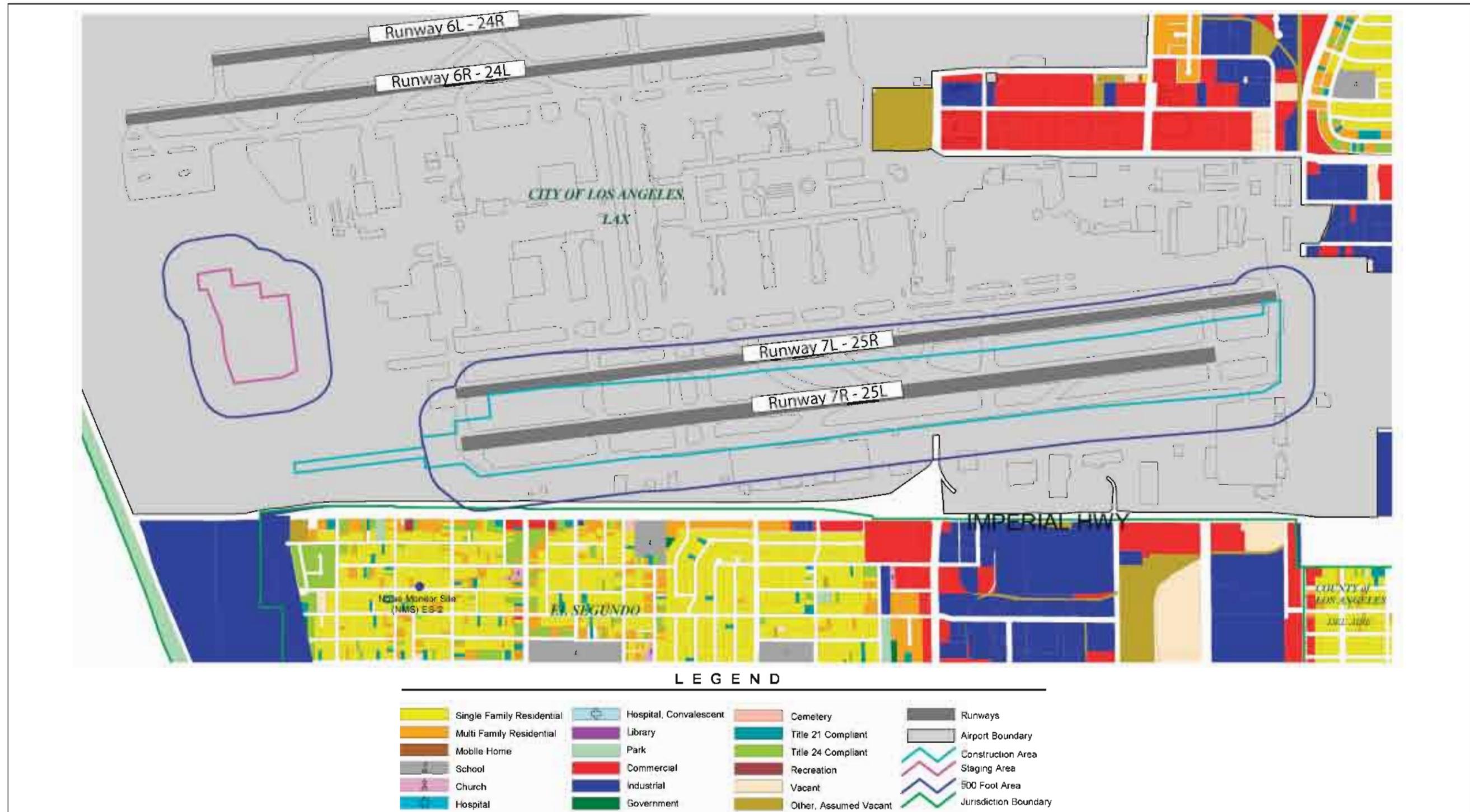
50. The second sentence of the third paragraph on page IV-225 of the Draft EIR is hereby revised as follows:

Of the nineteen roadway intersections evaluated, ~~four~~six were found to have a LOS C or worse for ~~2003 Baseline~~ 2005 Adjusted Baseline and ~~seven~~ for 2005 Adjusted Baseline Project (2005) conditions.

51. **Exhibit 4.5-16** on page IV-226 of the Draft EIR has been revised. Please see the following revised exhibit.

52. The first full paragraph on page IV-227 of the Draft EIR is hereby revised as follows:

Based on the thresholds of significance for construction activity defined in the *Draft L.A. CEQA Thresholds Guide*, May 1998 (summarized in Section 4.5.4.), the significance criteria for the SAIP construction *equipment noise activities* was defined as an increase in noise of 5 dBA over ambient CNELs ~~within~~ on noise-sensitive land uses. The 5 dBA threshold was selected because scheduled construction activity is expected to last for more than 10 days and will occur between 9:00 p.m. and 7:00 a.m. Monday through Friday and before 8:00 a.m. or after 6:00 p.m. on Saturday. *CNEL (described in Subsection 4.5.2.1.1) was determined to be an appropriate metric in order to account for reduced ambient noise levels and increased human sensitivity to noise during the hours of 7 p.m. through 7 a.m. To account for the fluctuation in noise levels over a 24-hour period of the project, a time-averaged noise metric is used. The Draft L.A. CEQA Thresholds Guide recommends CNEL. This metric takes into account the reduced ambient noise levels and increased sensitivity to noise during evening and nighttime hours. The Draft L.A. CEQA Thresholds Guide also requires a quantification of ambient noise levels measured in CNEL. With the use of the CNEL metric, the construction equipment noise analysis in the SAIP Draft EIR does account for reduced ambient noise levels at night, and compares the construction equipment noise impacts of the SAIP against an ambient CNEL that also takes into account reduced nighttime levels. It is important to note that most of the construction activities were expected to take place during daytime hours with a second shift starting at 4:00 p.m. and ending ~~to~~ at 2:00 a.m. The primary purpose of the second shift would be to conduct construction activities that cannot be accomplished during the daytime shift due to coordination or interference issues (caused by airport operations, safety, delivery of materials, or equipment malfunction/availability). The number of employees assumed for each shift indicated this. The daytime shift (1st shift) and night shift (2nd shift) will include approximately 170 and 82 employees, respectively. About 68% of the total number of employees planned for SAIP construction work during the daytime shift (6:00 a.m. through 4:00 p.m.)*



Source: Psomas, April 2000 - land use data: PCR Inc., 2002 - GIS datasets and mapping; HNTB 2004 - staging area and construction site boundaries, Ricondo & Associates, Inc., 2004 - 500 ft area
 Prepared by: Ricondo & Associates, Inc.

Exhibit 4.5-16



South Airfield Improvement Project Construction Site and Staging Area

53. The second full paragraph on page IV-227 of the Draft EIR is hereby revised as follows:

A Project (2005) ambient (without construction equipment noise) was required in addition to expected Project (2005) construction equipment noise levels in order to compare projected noise levels with the Project to 2003 Baseline ambient levels. In order to obtain a 2005 non-construction ambient noise level that included an aircraft component, an INM-modeled aircraft CNEL (67.4) for 2005 with Runway 7R-25L closed was calculated for LAWA's permanent noise monitoring ES2 site. This value was logarithmically added to the 2003 community or non-aircraft CNEL (57.9 dBA) measured value at Site ES2¹⁶. As mentioned previously, LAWA's permanent noise monitoring site ES2 was chosen to provide a representation of ambient noise level based on (1) the availability of long-term measurement data, (2) aircraft correlated CNELs, and (3) location of noise-sensitive areas closest to the SAIP construction site.

54. Footnote 42 on page IV-227 of the Draft EIR is hereby revised as follows:

⁴² LAWA NMD Airport Noise Monitoring and Management System, January 1 through ~~December~~ September 26, 2003~~4~~.

55. The first two paragraphs on page IV-231 of the Draft EIR are hereby revised as follows:

~~With Runway 7R-25L closed, t~~The estimated 2005~~3~~ ambient (non-construction) CNEL within areas near the construction site is projected to be ~~68~~ 70.4 dBA (refer to Subsection 4.5.3.2.2). *Project (2005) construction equipment noise would need to increase the 2005 total ambient level to 75.4 dBA CNEL or greater to cause a significant impact (70.4 dBA CNEL (2003 Baseline ambient) + 5 dBA CNEL(threshold of significance) = 75.4 dBA CNEL). With the predicted 2005 ambient (non-construction) level of 68 dBA CNEL, construction equipment noise levels would need to be at least 74.5 dBA CNEL or greater within the noise-sensitive areas closest to the construction site (residences along Imperial Avenue between Sheldon Street and Hillcrest Street) in order to increase the 2005 total ambient to 75.4. Based upon the attenuation assumptions previously mentioned, a construction CNEL of ~~74~~74.5 dBA might be detected up to approximately 500 feet from the construction site⁴⁵. As depicted on Exhibit 4.5-~~8~~16, no noise-sensitive sites or parcels are located within the 500-foot buffer from both the runway construction site and staging area. Therefore, noise levels caused by SAIP construction activities are not expected to cause a significant impact on noise-sensitive areas and no additional mitigation is required.*

The closest noise-sensitive sites are approximately 600 to 700 feet from the Runway 7R-25L construction site. The construction equipment CNEL was estimated at ~~70~~ 72.8 dBA, 600 feet from the construction site. Adding the 2005 ambient and construction CNELs resulted in an estimated total of ~~72~~ 74.0 dBA. Compared to 2003 Baseline ambient CNEL measured at site ES2 (70.4 dBA), an increase of ~~2~~ 3.6 dBA may be expected during construction in 2005.

¹⁶ LAWA NMD Airport Noise Monitoring and Management System, January through December 2003.

56. Subsection 4.5.6.3.4 on page IV-231 of the Draft EIR is hereby revised as follows:

4.5.6.3.4 Threshold of Significance - CNEL

Using the 5 dBA CNEL threshold of significance, construction noise that raises the 2003 *Baseline* ambient noise level to ~~73~~ 75.4 dBA (~~68~~ 70.4 dBA CNEL + 5 dBA = ~~73~~ 75.4 dBA CNEL) or more may be considered significant. In order to raise the total background noise level to ~~73~~ 75.4 dBA CNEL *during Project (2005) conditions*, construction noise would need to be ~~71.0~~ 74.5 dBA CNEL or more at a noise-sensitive site (68 dBA CNEL + ~~71~~ 74.5 dBA CNEL = ~~73~~ 75.4 dBA CNEL) *or 91 dBA CNEL or more at 50 ft from the construction activity*. For the closest noise-sensitive site, the estimated total (construction equipment and *Project (2005) non-construction ambient*) was ~~72~~ 74.0 dBA. Compared to 2003 *Baseline* ambient levels, an increase of ~~2~~ 3.6 dBA may be expected during Project (2005) conditions.

~~Both~~ The calculations above ~~were~~ results in an increase below the 5 dBA threshold of significance. Therefore, noise levels caused by SAIP construction activities are not expected to cause a significant impact on noise-sensitive areas and no additional mitigation is required

57. The first bulleted sentence in subsection 4.5.6.4 on page IV-231 of the Draft EIR is hereby revised as follows:

- Newly exposed to 65 CNEL and higher: 4,714 dwelling units, 13,452 residents, and ~~35~~ 34 non-residential noise-sensitive locations

58. The third bulleted sentence in subsection 4.5.6.4 on page IV-231 of the Draft EIR is hereby revised as follows:

- 1.5 CNEL or greater increase within areas exposed to 65 CNEL and higher: 9,278 dwelling units, 28,574 residents, and ~~51~~ 50 non-residential noise-sensitive locations

59. Table 4.5-26 on page IV-232 of the Draft EIR is hereby revised as follows:

Table 4.5-26

Significant Impact Summary – Noise Exposure Effects of Project (2005) Compared with 2003 Baseline Conditions by Jurisdiction

Impact Category	LA City	LA County	El Segundo	Inglewood	Hawthorne	Total
65 CNEL and Greater						
Net Change in Acres Exposed	122.3	-17.8	-53.9	205.1	0.0	255.7
Net Change in Units Exposed	1,142	102	-443	2,299	0	3,100
Net Change in Population Exposed	2,476	57	-941	6,546	0	8,138
Net Change in Non-residential Noise-Sensitive Uses Exposed	6	-2	-1	24 23	0	27 26
Newly Exposed Units	1,261	736	0	2,717	0	4,714
Newly Exposed Population	2,829	2,572	0	8,051	0	13,452
Newly Exposed Non-residential Noise-sensitive Uses	8	2	0	25 24	0	35 34
75 CNEL and Higher						
Net Change in Acres Exposed	0	7	-0.4	0	0	6.6
Net Change in Units Exposed	0	119	-23	0	0	96
Net Change in Population Exposed	0	487	-53	0	0	434
Newly Exposed Units	0	176	0	0	0	176
Newly Exposed Population	0	756	0	0	0	756
1.5 CNEL increase in areas exposed to 65 CNEL and Higher						
Units Exposed	2,153	1,293	0	5,832	0	9,278
Population Exposed	4,900	5,148	0	18,526	0	28,574
Non-residential Noise-Sensitive Uses exposed ^{1/}	14 15	4 5	0	33 34	0	51 504
94 dBA SEL						
Change in Units Exposed	943	-1,190	-763	2,446	-8	1,428
Change in Population Exposed	1,886	-4,645	-1,612	6,632	-30	2,231
Newly Exposed Units	1,123	0	0	4,389	0	5,512
Newly Exposed Population	2,426	0	0	13,637	0	16,063
Single Event Effects on Schools						
Schools Newly Exposed ^{2/}	3	3	0	0	0	6

Notes:

- 1/ The number of noise-sensitive uses newly exposed to 65 CNEL and 75 CNEL is documented in Table 4.5-16, *Newly Impacted Residential and Noise Sensitive Land Use Areas: Project (2005) Compared with 2003 Baseline Conditions*.
- 2/ The number of noise-sensitive uses exposed to a 1.5 CNEL increase above 65 CNEL is documented in Table 4.5-17, *Residential and Noise Sensitive Land Use Areas Exposed to 1.5 CNEL Increase: Project (2005) Compared with 2003 Baseline conditions*.
- 3/ The number of residential units newly exposed to potential nighttime awakenings is documented in Table 4.5-18, *94 dBA Single Event Noise Effects on Awakenings: 2005 Project (2005) Compared with 2003 Baseline Conditions*.
- 4/ The number of schools newly exposed to potential classroom disruption is documented in Table 4.5-23, *"Listing of Schools Newly Exposed to High Single Event Noise Levels: Project (2005) Compared with 2003 Baseline Conditions"*.

Sources: Ricondo and Associates with Wyle Laboratories, 2004. Based on Landrum & Brown INM analysis and PCR, Inc. GIS analysis, 2002 – LAX Master Plan Final EIR.
 Prepared by: Ricondo and Associates, 2004

60. After the first paragraph in subsection 4.5.8.2 on page IV-238 of the Draft EIR, the following text is added:

Overall, the average 24-hour CNEL level emitted by construction equipment noise at the construction site needs to be maintained at a level that does not increase the existing ambient more than 5 dBA for the closest noise-sensitive sites. According to the ambient levels reported in Section 4.5 (subsection 4.5.6.3) of the Draft EIR, the daily average CNEL should not exceed 91 dBA 50 ft from the site of construction activity. At this level, the projected ambient level for the closest noise-sensitive areas will increase to a level that is 5 dBA CNEL more than the existing 2003 ambient level. The 91 dBA CNEL reference level is applicable to construction taking place in work areas located on the west end of Runway 25L. The reference level for other work areas in the middle and east end of the site may be higher, because nearby noise-sensitive areas are located further away (see Exhibit 4.5-16 of the Draft EIR).

Based on this guideline, the Contractor will be required to develop construction site-specific noise control and monitoring plans, baseline noise data measurements, a compliance measurement plan, and equipment requirements. LAWA will provide through the SAIP Construction Manager acoustical engineers to review and monitor compliance of the Construction Noise Control Plan (CNCP) developed by the Contractor.

The construction contract specifications for SAIP include environmental requirements. First, the Contractor shall designate a Contractor Environmental Compliance Officer (CECO) to ensure the implementation of all components of the construction-related environmental requirements through management direction, compliance monitoring, direct inspections, maintenance of records, and investigations of complaints.

The Contractor shall prepare for submittal and approval by LAWA a project CNCP. The plan shall describe how the Contractor will manage construction related to noise. The intent is to control noise impacts to noise sensitive areas. Specific items include:

- Noise control measures to be proposed may include, but shall not be limited to, devices such as equipment mufflers, enclosures, and barriers on all construction equipment to reduce noise impacts. Natural and artificial barriers such as existing dirt berms, ground elevation changes, solid fencing, and existing buildings can be utilized, where appropriate, to shield construction noise.*
- Construction equipment not complying with the requirements of the CNCP shall be replaced with compliant equipment except where specifically approved by the Engineer.*
- The Contractor shall remedy environmental malfunctions within 24 hours of discovery of such or the equipment shall be removed from the site.*
- All construction equipment with stationary internal combustion engines, but without enclosures, (such as pumps and generators) that are operated during noise sensitive times of day as defined by the Draft City of Los Angeles CEQA Thresholds Guide shall have barriers provided to mitigate noise. Alternately, the Contractor shall implement other noise mitigation measures as approved by the Engineer.*

- *The Contractor shall utilize rubber-tired or rubber-tracked equipment, if feasible, as determined by the Engineer for the type of work being performed. The Contractor shall document the use of all tracked equipment and why a rubber tired unit would not suffice.*
- *At no time shall any truck equipped with an "engine brake" utilize the engine brake while on site or on designated routes. Construction equipment noise control devices shall be properly installed, maintained and utilized by the Contractor.*

Section 5.1, Land Use

1. The first sentence of the third full paragraph on page V-3 is revised as follows:

In addition to Mitigation Measures MM-N-7 through MM-N-10 and LAX Master Plan Commitment C-1, *Establishment of a Ground Transportation/Construction Coordination Office*, N-1, *Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program*, and LAX Master Plan Commitments ST-9, ST-12, ST-14, ST-16, ST-17, ST-18, *ST-21*, and *ST-22* would address construction impacts on sensitive land uses.

2. The second sentence of the fourth full paragraph on page V-4 is revised as follows:

Potential land use incompatibilities associated with construction traffic would be less than significant with implementation of LAX Master Plan Commitments C-1, ST-9, ST-12, ST-14, ST-16, ST-17, ST-18, *ST-21*, and *ST-22*, presented in Section 4.2.

Section 5.2, Population, Housing, Employment and Growth-Inducement

1. The fourth bullet point under Section 5.2.3.2 is hereby revised as follows:

- EJ-4. Community Mitigation Monitoring ~~Aviation Curriculum~~

Section 5.7, Solid Waste

1. The third sentence of the fourth paragraph on page V-22 is hereby revised as follows:

Additionally, LAX Master Plan Commitments *SW-2, Requirements for the Use of Recycled Materials During Construction*, and *SW 3, Requirements for the Recycling of Construction and Demolition Waste*, would reduce the amount of demolition and construction waste requiring disposal by requiring contractors to *use recycled construction materials and to recycle demolition and construction-related waste.*

2. The following bullet point is added to Section 5.7.3.2:

- ***SW-2. Requirements for the Use of Recycled Materials During Construction.***

3. The second sentence of the first full paragraph on page V-23 is hereby revised as follows:

Specific to the SAIP, *a minimum of 20 percent of recycled materials such as existing concrete and asphalt pavements, will be required to be used during construction under Master Plan Commitment SW-2. In fulfillment of Master Plan Commitment SW-3, a minimum of 20 percent of construction waste materials, such as concrete and asphalt, will be required to be recycled.* ~~under Master Plan Commitment SW-3.~~

Section 5.12, Public Services

1. The fifth sentence of the third full paragraph on page V-36 is revised as follows:

Implementation of LAX Master Plan Commitment C-1, *Establishment of a Ground Transportation/Construction Coordination Office*, and LAX Master Plan Commitments ST-9, ST-12, ST-14, ST-16, ST-17, ST-18, *ST-21*, and ST-22, would reduce impacts of construction on emergency response times to less than significant.

Section 5.13, Schools

1. The third sentence of the third paragraph on page V-39 of the Draft EIR is hereby revised as follows:

As listed in Table 4.5-23, such aircraft noise impacts would include ~~44~~ 12 schools newly exposed to noise of 65 CNEL and higher, ~~24~~ 25 schools exposed to noise increases of 1.5 CNEL or more in areas exposed to 65 CNEL and higher, and 6 schools newly ~~exposed~~ ~~exposure~~ to interior noise levels that result classroom disruption.

4.3 Corrections and Additions to Appendices to the Draft EIR

Appendix L, Ambient Air Quality Human Health Risk Assessment

1. **Table L-3** on page L-10 is hereby revised as follows:

Table L-3

Annual Average SAIP Construction Source TAC Emissions in 2005

Source	Annual Emissions ^{1/} (tons/yr)		Avg Daily Emissions ^{1/,3/} (lbs/day)	
	ROC	PM ₁₀ ^{2/}	ROC	PM ₁₀ ^{2/}
Off-Road Equipment-Diesel ^{4/}	6.14	0.42	40.91	2.82
On-Road Equipment:				
Diesel ^{4/}	1.78	0.86	11.84	5.77
Gasoline ^{4/}	1.81	0.10	12.07	0.67
Generators ^{4/}	3.32	0.50	22.16	3.34
<i>Building Materials</i> ^{5/}	53.66		357.71	
Total Project ^{6/}	66.7143-05	1.89	444.6986-98	12.59

Notes:

ROC = Reactive organic compounds, assumed to be equivalent to volatile organic compounds (VOC).

1/ Assumes LAX Master Plan Final EIR air quality mitigation measures for construction are implemented.

2/ PM₁₀ represents combustion PM₁₀ only

3/ Average daily emissions equal annual emissions divided by 300 days (25 days per month x 12 months per year).

4/ Emissions estimates use emission factors from CARB OFFROAD Model, Year 2005 and EMFAC2002, as obtained from the LAX Master Plan Final EIR prepared by CDM.

5/ *Building materials include emissions from asphalt concrete, pavement paint (striping), and valve/connection paint.*

5/6/ Totals may not add exactly due to rounding.

Source: PCR Services Corporation, 2005

Prepared by: CDM

2. **Table L-4** on page L-10 is hereby revised as follows:

Table L-4

Peak Daily Construction Source TAC Emissions

Source	Peak Day Emissions ^{1,2/} (tons/day)		Peak Day Emissions ^{1,2/} (lbs/day)	
	ROC	PM ₁₀ ^{3/}	ROC	PM ₁₀ ^{3/}
Off-Road Equipment-Diesel ^{4/}	0.049	0.004	97.26	7.42
On-Road Equipment:				
Diesel ^{4/}	0.018	0.107	36.01	213.99
Gasoline ^{4/}	0.008	0.003	16.36	5.23
Generators ^{4/}	0.011	0.002	22.16	3.34
Building Materials ^{5/}	544.20		3,628.12	
Total Project ^{6/}	544.29	0.115	3,799.91	229.97

Notes:

ROC = Reactive organic compounds, assumed to be equivalent to volatile organic compounds (VOC).

1/ Assumes LAX Master Plan Final EIR air quality mitigation measures for construction are implemented.

2/ Peak daily emissions are assumed to occur during 3rd Quarter of construction schedule because that was the peak quarter for construction activity and emissions.

3/ PM10 represents combustion PM₁₀ only.

4/ Emissions estimates use emission factors from CARB OFFROAD Model, Year 2005 and EMFAC2002, as obtained from the LAX Master Plan Final EIR prepared by CDM.

5/ Building materials include emissions from asphalt concrete, pavement paint (striping), and valve/connection paint. Totals may not add exactly due to rounding.

6/ Totals may not add exactly due to rounding.

Source: PCR Services Corporation, 2005

Prepared by: CDM

3. The first paragraph, on page L-17 of the Draft EIR is hereby revised as follows:

Risk estimates for ~~the combined~~ construction and operational sources are presented in the following sections. **Attachment 3** to this Appendix presents calculations and results for incremental cancer risks and incremental non-cancer chronic *hazards from operational sources only*. ~~and non-cancer acute hazards for residents and school children exposed to TACs from combined construction and operational sources are also included in Attachment 3 to this Appendix.~~ Risk estimates for construction sources only are presented in **Attachment 4** to this Appendix, and indicate that construction impacts to health risk are below the thresholds of significance. Therefore, the risk estimates for combined sources that exceed the thresholds are primarily driven by operational sources.

4. Section L.4.1 on page L-17 of the Draft EIR is hereby revised as follows:

L.4.1 Incremental Risks and Non-Cancer Hazards Associated with SAIP Operations and Construction

~~Cancer and chronic non-cancer Risk~~ estimates for ~~the combined construction and~~ operational sources are presented below for on-airport workers (occupational exposure), and off-airport residents, workers, and school children. ~~Acute risks for combined construction and operational sources are also discussed as well as chronic non-cancer risks are discussed.~~

5. The first sentence of the fourth paragraph, on page L-17 of the Draft EIR is hereby revised as follows:

Workers are evaluated by comparing estimated annual air concentrations of TACs *from SAIP operations for the SAIP* to the California Occupational Safety and Health Administration (CalOSHA) 8-hour Time-Weighted Average Permissible Exposure Levels (PEL-TWAs).

6. The first sentence of the second paragraph, on page L-18 of the Draft EIR is hereby revised as follows:

Incremental MEI cancer risks and non-cancer health hazards were calculated for adult residents, resident children ages 0 to 6 years, and for elementary-aged school children at fenceline locations where maximum air concentrations for TACs *from SAIP operations* were predicted.

7. **Table L-11** on page L-19 of the Draft EIR is hereby revised as follows:

Table L-11

Incremental Cancer Risks and Chronic Non-Cancer Human Health Hazards for Maximally Exposed Individuals for 2005 SAIP Compared to 2003 Baseline

Receptor Type	Incremental Cancer Risks ^{1/} (per million people)
Child Resident	6
School Child	2
Adult + Child Resident ^{2/}	20 21
Adult Resident	19 20
	Incremental Non-Cancer Chronic Hazards ^{3/}
Child Resident	5
School Child	2
Adult Resident	1

Notes:

- 1/ Values provided are changes in the number of cancer cases per million people exposed as compared to baseline conditions. All estimates are rounded to one significant figure.
 2/ Includes exposure to TACs released from LAX from childhood (ages 0-6) through adulthood (ages 7-70).
 3/ Hazard indices are totals for all TACs that may affect the respiratory system. This incremental hazard index is essentially equal to the total for all TACs.

Values in **BOLD** exceed thresholds of significance.

Source: CDM, 2005.
 Prepared by: CDM

8. The first sentence of the first paragraph on page L-19 of the Draft EIR is hereby revised as follows:

Total estimated incremental cancer risk for adult residents and child residents for the SAIP were ~~19-20~~ in one million and 6 in one million, respectively.

9. The third sentence of the first paragraph on page L-19 of the Draft EIR is hereby revised as follows:

Total estimated incremental cancer risks for a young child through adulthood (adult + child) with maximum predicted TAC concentrations was ~~20~~ **21** in one million.

10. A sentence is added to the end of the second paragraph on page L-20 of the Draft EIR as follows:

Although the acute (1-hour average) dispersion analysis was conducted with combined operational and construction sources, the acrolein contribution to acute hazards from operations was greater than all acute TAC hazards from construction sources (more than a factor of 100 greater at the maximum acute hazard impact locations).

11. **Table L-12** on page L-20 of Appendix L of the Draft EIR is hereby revised as follows:

Table L-12

Incremental Acute Hazard Indices for the 2005 SAIP Compared to the 2003 Baseline

Summary of Hazard Indices	
	2005 SAIP Increment
Residential	
Maximum HI	10
Minimum HI	1
Average HI	4
Off-Site Worker	
Maximum HI	19
Minimum HI	1
Average HI	5

Notes:

HI = Hazard Index

*Values in **BOLD** exceed thresholds of significance.*

Source: CDM 2005

Prepared by: CDM

Appendix M. Supplemental Noise Analysis Information

1. **Table M-11 (4 of 12)** on page M-42 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
2. **Table M-11 (8 of 12)** on page M-46 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
3. **Table M-11 (12 of 12)** on page M-50 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
4. **Table M-12 (4 of 12)** on page M-54 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.

5. **Table M-12 (8 of 12)** on page M-58 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
6. **Table M-12 (12 of 12)** on page M-62 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
7. **Table M-13 (4 of 12)** on page M-66 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
8. **Table M-13 (8 of 12)** on page M-70 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
9. **Table M-13 (12 of 12)** on page M-74 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
10. **Table M-14 (4 of 12)** on page M-78 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
11. **Table M-14 (8 of 12)** on page M-82 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
12. **Table M-14 (12 of 12)** on page M-86 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
13. **Table M-15 (4 of 12)** on page M-90 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
14. **Table M-15 (8 of 12)** on page M-94 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
15. **Table M-15 (12 of 12)** on page M-98 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
16. **Table M-16 (4 of 12)** on page M-102 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
17. **Table M-16 (8 of 12)** on page M-106 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
18. **Table M-16 (12 of 12)** on page M-110 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
19. **Table M-17 (4 of 12)** on page M-114 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
20. **Table M-17 (8 of 12)** on page M-118 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.

21. **Table M-17 (12 of 12)** on page M-122 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
22. **Table M-18 (4 of 12)** on page M-126 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
23. **Table M-18 (8 of 12)** on page M-130 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.
24. **Table M-18 (12 of 12)** on page M-134 of Appendix M of the Draft EIR is hereby revised. Please see the following revised table.

Table M-11 (4 of 12)

Location Points Description: Baseline 2003 Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	Owner of Record per County Assessor
X07	Regular Grid	48,000	6,000	Not Applicable
X08	Regular Grid	48,000	9,000	Not Applicable
X09	Regular Grid	48,000	12,000	Not Applicable
Y01	Regular Grid	51,000	-12,000	Not Applicable
Y02	Regular Grid	51,000	-9,000	Not Applicable
Y03	Regular Grid	51,000	-6,000	Not Applicable
Y04	Regular Grid	51,000	-3,000	Not Applicable
Y05	Regular Grid	51,000	0	Not Applicable
Y06	Regular Grid	51,000	3,000	Not Applicable
Y07	Regular Grid	51,000	6,000	Not Applicable
Y08	Regular Grid	51,000	9,000	Not Applicable
Y09	Regular Grid	51,000	12,000	Not Applicable
Z01	Regular Grid	54,000	-12,000	Not Applicable
Z02	Regular Grid	54,000	-9,000	Not Applicable
Z03	Regular Grid	54,000	-6,000	Not Applicable
Z04	Regular Grid	54,000	-3,000	Not Applicable
Z05	Regular Grid	54,000	0	Not Applicable
Z06	Regular Grid	54,000	3,000	Not Applicable
Z07	Regular Grid	54,000	6,000	Not Applicable
Z08	Regular Grid	54,000	9,000	Not Applicable
Z09	Regular Grid	54,000	12,000	Not Applicable
CH006	Church	18,362	851	Alfredo Figueroa
CH008	Church	-1,056	-6,191	American Baptist Churches of The
CH011	Church	33,776	-3,732	Amos Temple Christian Methodist
CH012	Church	34,672	611	Andrew & Carol Hammitt
CH019	Church	16,609	-6,394	Archdiocese of LA Educ & Welfare Corp
CH020	Church	16,609	-5,892	Archdiocese of LA Educ & Welfare Corp
CH022	Church	18,259	9,542	Archdiocese of LA Educ & Welfare Corp
CH025	Church	16,984	-6,155	Archdiocese of LA Educ & Welfare Corp
CH026	Church	772	5,897	Archdiocese of LA Educ & Welfare Corp
CH030	Church	37,397	-3,562	Archdiocese of LA Educ & Welfare Corp
CH031	Church	29,694	4,531	Arthur McGlothen
CH032	Church	34,999	-2,528	Assembly of Christian
CH037	Church	12,173	2,634	Bay-West LA Southern Crescent
CH044	Church	29,459	444	Beth Ezel Baptist Church
CH047	Church	36,169	6,797	Bethany Apostolic Church Inc
CH048	Church	36,695	2,519	Bethany Prayer Temple Church
CH049	Church	29,734	8,749	Bethel African Methodist
CH052	Church	28,386	11,458	Bethel Missionary Baptist Church
CH053	Church	32,138	10,827	Bethlehem Missionary Baptist Church
CH056	Church	29,496	10,032	Bill & Lillie English
CH058	Church	37,445	-3,804	Bobby Sheffield
CH060	Church	37,453	1,503	Bright Throne Missionary Baptist Church
CH062	Church	18,436	-9,362	Calvary Baptist Ch of Hawthorne
CH067	Church	24,220	9,999	Cedar Grove Baptist Church
CH069	Church	24,032	-1,953	Central Baptist Church
CH072	Church	36,144	10,802	Christ Centered Pentecostal Church
CH075	Church	36,127	-1,223	Christian Reformed Board Of
CH076	Church	36,351	8,763	Christian Tabernacle Inc
CH078	Church	30,942	225	Christ's Community Church LA
CH082	Church	15,556	4,179	Church of God Pentecostal INC
CH083	Church	-5,007	6,170	Church of Messiah Congregational
CH087	Church	15,502	10,235	Church of Religious Science of Inglewood

Table M-11 (8 of 12)

Location Points Description: Baseline 2003 Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	Owner of Record per County Assessor
CH462	Church	37,658	2,565	St Mark Missionary Faithful
CH463	Church	28,157	7,476	St Marks United Methodist Church
CH465	Church	29,437	-2,633	St Thomas Baptist Church
CH469	Church	36,307	9,187	Steven Shaw
CH470	Church	15,830	5,944	Strait-Way Apostolic Church Inc
CH471	Church	34,666	3,437	Strangers Rest Missionary Baptist Church
CH472	Church	34,478	360	Sweet Hill Baptist Church Inc
CH479	Church	29,687	3,172	Thompson Memorial Chapel Church Inc
CH480	Church	36,132	8,126	Three Oaks Baptist Church
CH481	Church	6,983	6,070	Tikvah Congregation Brnai
CH482	Church	35,540	2,955	Tolutasi United Methodist Church
CH485	Church	37,466	9,880	Trinity C M E Church
CH493	Church	36,143	9,513	True Gospel Missionary Baptist Church
CH497	Church	12,760	12,329	Truevine Baptist Church
CH500	Church	29,680	2,945	Twenty Third Church of Christ Scientist
CH503	Church	-2,777	-7,028	United Methodist Church of El Segundo
CH507	Church	38,086	-1,785	Upper Room Church God
CH509	Church	34,671	8,932	Vermont Ave Church of Christ
CH513	Church	17,184	8,722	Wardens & Vestrymen Rector
CH518	Church	5,989	6,176	Westchester Assembly of God
CH519	Church	-4,691	6,400	Westchester Ch of the Nazarene
CH520	Church	3,327	10,191	Westchester Lutheran Church
CH521	Church	427	8,681	Westchester United Methodist Church
CH522	Church	13,607	1,267	Westside Christian Fellowship of Los An
CH524	Church	34,683	4,171	Wiley & Gloria Sapp Jr.
CH529	Church	37,462	-1,270	Woodcrest Congregation Of
CH532	Church	23,813	9,141	Zion Hill Baptist Church
CH533	Church	29,674	1,811	Juan & Irma Aquilar
CH540	Church	29454	359	Mt. Hebron Baptist Church
CH541	Church	29669	654	Airway Prayer House Church
CH542	Church	30078	1173	Century Blvd Church of Christ
HOS05	Hospital	15,713	-5,495	Burton Russell Co
HOS07	Hospital	15,334	-5,123	Catholic Healthcare West Southern Calif
HOS09	Hospital	23,095	8,420	Crippled Children's Society Of
HOS10	Hospital	18,684	3,896	Desco Health Care Inc
HOS11	Hospital	18,500	8,884	Freeman Med Towers Lp
HOS12	Hospital	13,791	-5,987	Golden West Convalescent Hospital Investm
HOS13	Hospital	29,985	5,901	Grp Bedford
HOS15	Hospital	17,190	1,285	Robert & Richard Binkert
HOS16	Hospital	13,553	7,081	Samuel & Kathryn Dixon
HOS18	Hospital	13,797	-3,917	State of Calif
HOS19	Hospital	17,676	2,790	Washington Mut Bk
LIB01	Library	15,816	-9,101	Hawthorne City
LIB02	Library	15,450	7,185	Inglewood City
LIB03	Library	24,178	-3,305	Inglewood City
LIB04	Library	23,842	6,513	Inglewood City Library
LIB05	Library	3,672	4,468	LA City
LIB06	Library	32,350	-1,151	LA County
LIB07	Library	16,622	-1,444	Lennox Branch
LIB10	Library	37,424	2,049	Mark Twain Branch
LIB11	Library	-3,147	-6,769	El Segundo Library
LIB13	Library	-3,179	6,210	Loyola Village Branch
NH003	Hospital, Convalescent	29,488	7,434	American Philanthropy Assn Inc
NH004	Hospital, Convalescent	34,331	5,967	Archdiocese of LA Educ & Welfare Corp
NH007	Hospital, Convalescent	17,108	11,062	C & H Health Care
NH008	Hospital, Convalescent	20,727	-198	Charles Perkins

Table M-11 (12 of 12)

Location Points Description: Baseline 2003 Conditions

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	Owner of Record per County Assessor
PVS104	Private School	9,240	3,525	Westchester Neighborhood School
PVS105	Private School	14,468	-9,493	Acacia Baptist School
PVS106	Private School	26,663	6,419	Calvary Christian School
PVS107	Private School	3,658	5,088	Escuela de Montessori
PVS108	Private School	23,359	6,499	Faith Lutheran Church School
PVS109	Private School	18,639	3,216	K-Anthony's Middle School
PVS110	Private School	-573	-8,780	Saint Anthony's Catholic School
PVS111	Private School	16,874	-6,105	St Joseph's Catholic Church School
<i>PVS115</i>	<i>Private School</i>	<i>15907</i>	<i>3499</i>	<i>Century Community Charter School</i>
<i>PVS116</i>	<i>Private School</i>	<i>30035</i>	<i>1171</i>	<i>California Technical Union High School</i>
<i>PVS117</i>	<i>Private School</i>	<i>30486</i>	<i>1003</i>	<i>Ruby's Christian Academy</i>
PBS114	Private School	9,739	3,976	University of West Los Angeles
PBS116	Private School	8,575	4,739	University of West Los Angeles
PVS138	Private School	-2,901	10,004	Loyola Marymount University

1/ X and Y distances are measured in feet from the airport reference point.

Source: Landrum & Brown, Inc., 2002
 Prepared by: Ricondo and Associates, 2004

Table M-12 (4 of 12)

Location Points CNEL Values and Comparison: Baseline 2003 and Project (2005) Conditions^{2/}

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 CNEL	Project (2005) CNEL	Difference
X05	Regular Grid	48,000	0	55.8	54.8	-1.0
X06	Regular Grid	48,000	3,000	60.5	60.5	0.0
X07	Regular Grid	48,000	6,000	57.2	59.5	2.3
X08	Regular Grid	48,000	9,000	56.9	58.9	2.0
X09	Regular Grid	48,000	12,000	52.3	55.0	2.7
Y01	Regular Grid	51,000	-12,000	39.0	37.1	-1.9
Y02	Regular Grid	51,000	-9,000	40.9	39.3	-1.6
Y03	Regular Grid	51,000	-6,000	43.7	42.5	-1.2
Y04	Regular Grid	51,000	-3,000	47.8	46.9	-0.9
Y05	Regular Grid	51,000	0	54.7	53.6	-1.1
Y06	Regular Grid	51,000	3,000	59.7	59.2	-0.5
Y07	Regular Grid	51,000	6,000	57.1	59.1	2.0
Y08	Regular Grid	51,000	9,000	56.3	58.7	2.4
Y09	Regular Grid	51,000	12,000	52.5	55.5	3.0
Z01	Regular Grid	54,000	-12,000	38.8	36.7	-2.1
Z02	Regular Grid	54,000	-9,000	40.4	38.8	-1.6
Z03	Regular Grid	54,000	-6,000	43.2	41.9	-1.3
Z04	Regular Grid	54,000	-3,000	47.1	46.1	-1.0
Z05	Regular Grid	54,000	0	53.6	52.3	-1.3
Z06	Regular Grid	54,000	3,000	58.7	57.8	-0.9
Z07	Regular Grid	54,000	6,000	57.0	58.7	1.7
Z08	Regular Grid	54,000	9,000	55.8	58.1	2.3
Z09	Regular Grid	54,000	12,000	52.7	55.6	2.9
CH006	Church	18,362	851	65.2	69.7	4.5
CH008	Church	-1,056	-6,191	63.6	62.4	-1.2
CH011	Church	33,776	-3,732	50.5	49.5	-1.0
CH012	Church	34,672	611	63.2	61.8	-1.4
CH019	Church	16,609	-6,394	52.5	51.1	-1.4
CH020	Church	16,609	-5,892	53.0	51.6	-1.4
CH022	Church	18,259	9,542	51.9	53.2	1.3
CH025	Church	16,984	-6,155	52.4	51.0	-1.4
CH026	Church	772	5,897	61.4	64.0	2.6
CH030	Church	37,397	-3,562	49.8	49.0	-0.8
CH031	Church	29,694	4,531	58.7	61.7	3.0
CH032	Church	34,999	-2,528	53.1	52.0	-1.1
CH037	Church	12,173	2,634	60.9	64.1	3.2
CH044	Church	29,459	444	65.9	64.5	-1.4
CH047	Church	36,169	6,797	59.4	61.9	2.5
CH048	Church	36,695	2,519	62.7	64.0	1.3
CH049	Church	29,734	8,749	57.6	59.3	1.7
CH052	Church	28,386	11,458	49.1	50.5	1.4
CH053	Church	32,138	10,827	51.7	53.3	1.6
CH056	Church	29,496	10,032	53.3	54.8	1.5
CH058	Church	37,445	-3,804	49.3	48.5	-0.8
CH060	Church	37,453	1,503	63.2	62.6	-0.6
CH062	Church	18,436	-9,362	48.9	47.4	-1.5
CH067	Church	24,220	9,999	51.6	53.1	1.5
CH069	Church	24,032	-1,953	60.2	57.5	-2.7
CH072	Church	36,144	10,802	53.5	55.0	1.5
CH075	Church	36,127	-1,223	57.1	55.2	-1.9
CH076	Church	36,351	8,763	58.2	60.0	1.8
CH078	Church	30,942	225	64.5	62.9	-1.6
CH082	Church	15,556	4,179	64.8	68.8	4.0

Table M-12 (8 of 12)

Location Points CNEL Values and Comparison: Baseline 2003 and Project (2005) Conditions²⁾

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 CNEL	Project (2005) CNEL	Difference
CH459	Church	34,981	4,311	58.8	61.6	2.8
CH461	Church	2,474	-5,106	63.7	62.4	-1.3
CH462	Church	37,658	2,565	62.6	63.7	1.1
CH463	Church	28,157	7,476	61.0	62.7	1.7
CH465	Church	29,437	-2,633	54.9	53.5	-1.4
CH469	Church	36,307	9,187	57.2	59.0	1.8
CH470	Church	15,830	5,944	65.1	66.7	1.6
CH471	Church	34,666	3,437	60.5	62.9	2.4
CH472	Church	34,478	360	62.7	61.2	-1.5
CH479	Church	29,687	3,172	60.3	63.4	3.1
CH480	Church	36,132	8,126	59.3	61.2	1.9
CH481	Church	6,983	6,070	59.6	60.6	1.0
CH482	Church	35,540	2,955	61.7	63.8	2.1
CH485	Church	37,466	9,880	55.7	57.6	1.9
CH493	Church	36,143	9,513	56.4	58.2	1.8
CH497	Church	12,760	12,329	49.1	49.1	0.0
CH500	Church	29,680	2,945	61.2	63.9	2.7
CH503	Church	-2,777	-7,028	62.1	60.9	-1.2
CH507	Church	38,086	-1,785	54.2	52.9	-1.3
CH509	Church	34,671	8,932	57.7	59.4	1.7
CH513	Church	17,184	8,722	53.5	54.9	1.4
CH518	Church	5,989	6,176	58.8	60.1	1.3
CH519	Church	-4,691	6,400	57.6	59.7	2.1
CH520	Church	3,327	10,191	52.8	54.3	1.5
CH521	Church	427	8,681	55.2	57.2	2.0
CH522	Church	13,607	1,267	60.3	63.4	3.1
CH524	Church	34,683	4,171	59.0	61.7	2.7
CH529	Church	37,462	-1,270	56.3	54.6	-1.7
CH532	Church	23,813	9,141	54.0	55.6	1.6
CH540	Church	29,454	359	65.7	64.2	-1.5
CH541	Church	29,669	654	66.1	65.0	-1.1
CH542	Church	30,078	1,173	65.8	66.1	0.3
HOS05	Hospital	15,713	-5,495	54.2	52.8	-1.4
HOS07	Hospital	15,334	-5,123	54.9	53.5	-1.4
HOS09	Hospital	23,095	8,420	56.7	58.2	1.5
HOS10	Hospital	18,684	3,896	61.7	65.7	4.0
HOS11	Hospital	18,500	8,884	53.3	54.9	1.6
HOS12	Hospital	13,791	-5,987	55.7	54.2	-1.5
HOS13	Hospital	29,985	5,901	60.7	63.5	2.8
HOS15	Hospital	17,190	1,285	61.8	66.2	4.4
HOS16	Hospital	13,553	7,081	57.9	59.2	1.3
HOS18	Hospital	13,797	-3,917	58.1	56.7	-1.4
HOS19	Hospital	17,676	2,790	58.4	62.3	3.9
LIB01	Library	15,816	-9,101	50.9	49.3	-1.6
LIB02	Library	15,450	7,185	58.3	59.8	1.5
LIB03	Library	24,178	-3,305	54.8	53.1	-1.7
LIB04	Library	23,842	6,513	63.4	65.3	1.9
LIB05	Library	3,672	4,468	66.7	68.1	1.4
LIB06	Library	32,350	-1,151	59.4	57.0	-2.4
LIB07	Library	16,622	-1,444	69.1	63.9	-5.2
LIB10	Library	37,424	2,049	63.2	63.5	0.3
LIB11	Library	-3,147	-6,769	63.1	61.8	-1.3
LIB13	Library	-3,179	6,210	58.0	60.2	2.2
NH003	Hospital, Convalescent	29,488	7,434	61.0	62.8	1.8
NH004	Hospital, Convalescent	34,331	5,967	59.0	61.8	2.8

Table M-12 (12 of 12)

Location Points CNEL Values and Comparison: Baseline 2003 and Project (2005) Conditions^{2/}

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 CNEL	Project (2005) CNEL	Difference
PVS101	Private School	29,432	-911	61.9	59.5	-2.4
PVS103	Private School	3,278	9,736	53.4	55.0	1.6
PVS104	Private School	9,240	3,525	67.5	72.2	4.7
PVS105	Private School	14,468	-9,493	51.6	49.9	-1.7
PVS106	Private School	26,663	6,419	62.7	64.9	2.2
PVS107	Private School	3,658	5,088	62.7	64.8	2.1
PVS108	Private School	23,359	6,499	63.5	65.4	1.9
PVS109	Private School	18,639	3,216	59.0	63.4	4.4
PVS110	Private School	-573	-8,780	57.2	56.3	-0.9
PVS111	Private School	16,874	-6,105	52.6	51.2	-1.4
PVS115	Private School	15,907	3,499	61.2	65.6	4.4
PVS116	Private School	30,035	1,171	65.8	66.1	0.3
PVS117	Private School	30,486	1,003	65.8	65.4	-0.4
PBS114	Private School	9,738	3,976	69.4	72.6	3.2
PBS116	Private School	8,575	4,739	69.8	70.8	1.0
PVS138	Private School	-2,901	10,004	51.9	53.4	1.5

Note:

Shaded cells represent grid points with an increase of 1.5 decibels or greater in 2005 (compared to 2003) if the 2005 CNEL value is greater than or equal to 65.0 decibels.

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

2/ Calculated CNEL levels represent levels at the specific grid point location. This data provides supplemental information for specific noise-sensitive locations. Determination of significance is conducted via noise-sensitive parcel selection using calculated CNEL contours.

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR

Prepared by: Ricondo & Associates, Inc.

Table M-13 (4 of 12)

Location Points TA-65 Values and Comparison: Baseline 2003 Conditions and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-65	Project (2005) TA-65	Difference
X05	Regular Grid	48,000	0	8.7	12.2	3.5
X06	Regular Grid	48,000	3,000	49.8	46.1	-3.7
X07	Regular Grid	48,000	6,000	11.4	28.8	17.4
X08	Regular Grid	48,000	9,000	23.1	31.9	8.8
X09	Regular Grid	48,000	12,000	4.2	4.8	0.6
Y01	Regular Grid	51,000	-12,000	0.0	0.0	0.0
Y02	Regular Grid	51,000	-9,000	0.1	0.0	-0.1
Y03	Regular Grid	51,000	-6,000	0.1	0.0	-0.1
Y04	Regular Grid	51,000	-3,000	0.2	0.2	0.0
Y05	Regular Grid	51,000	0	5.5	7.9	2.4
Y06	Regular Grid	51,000	3,000	40.4	34.1	-6.3
Y07	Regular Grid	51,000	6,000	12.2	28.5	16.3
Y08	Regular Grid	51,000	9,000	14.9	21.2	6.3
Y09	Regular Grid	51,000	12,000	4.5	5.6	1.1
Z01	Regular Grid	54,000	-12,000	0.0	0.0	0.0
Z02	Regular Grid	54,000	-9,000	0.1	0.0	-0.1
Z03	Regular Grid	54,000	-6,000	0.1	0.0	-0.1
Z04	Regular Grid	54,000	-3,000	0.2	0.1	-0.1
Z05	Regular Grid	54,000	0	4.3	2.9	-1.4
Z06	Regular Grid	54,000	3,000	29.9	22.1	-7.8
Z07	Regular Grid	54,000	6,000	12.9	26.5	13.6
Z08	Regular Grid	54,000	9,000	8.2	20.0	11.8
Z09	Regular Grid	54,000	12,000	4.6	7.3	2.7
CH006	Church	18,362	851	91.8	101.8	10.0
CH008	Church	-1,056	-6,191	63.0	47.7	-15.3
CH011	Church	33,776	-3,732	0.6	1.1	0.5
CH012	Church	34,672	611	79.5	59.7	-19.8
CH019	Church	16,609	-6,394	0.4	0.4	0.0
CH020	Church	16,609	-5,892	0.6	0.7	0.1
CH022	Church	18,259	9,542	1.1	2.2	1.1
CH025	Church	16,984	-6,155	0.5	0.5	0.0
CH026	Church	772	5,897	50.5	97.7	47.2
CH030	Church	37,397	-3,562	0.5	0.8	0.3
CH031	Church	29,694	4,531	28.7	59.7	31.0
CH032	Church	34,999	-2,528	2.8	2.0	-0.8
CH037	Church	12,173	2,634	35.2	61.4	26.2
CH044	Church	29,459	441	103.4	79.4	-24.0
CH047	Church	36,169	6,797	45.2	80.1	34.9
CH048	Church	36,695	2,519	75.2	74.1	-1.1
CH049	Church	29,734	8,749	30.6	42.9	12.3
CH052	Church	28,386	11,458	0.5	0.8	0.3
CH053	Church	32,138	10,827	3.1	1.0	-2.1
CH056	Church	29,496	10,032	4.8	2.1	-2.7
CH058	Church	37,445	-3,804	0.5	0.6	0.1
CH060	Church	37,453	1,503	79.0	65.8	-13.2
CH062	Church	18,436	-9,362	0.0	0.0	0.0
CH067	Church	24,220	9,999	2.5	1.5	-1.0
CH069	Church	24,032	-1,953	42.9	18.7	-24.2
CH072	Church	36,144	10,802	5.3	2.6	-2.7
CH075	Church	36,127	-1,223	15.0	13.1	-1.9
CH076	Church	36,351	8,763	36.5	57.4	20.9
CH078	Church	30,942	225	91.8	69.3	-22.5
CH082	Church	15,556	4,179	87.8	152.9	65.1

Table M-13 (8 of 12)

Location Points TA-65 Values and Comparison: Baseline 2003 Conditions and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-65	Project (2005) TA-65	Difference
CH459	Church	34,981	4,311	21.9	50.9	29.0
CH461	Church	2,474	-5,106	63.6	43.4	-20.2
CH462	Church	37,658	2,565	72.6	71.6	-1.0
CH463	Church	28,157	7,476	61.4	106.3	44.9
CH465	Church	29,437	-2,633	4.6	3.5	-1.1
CH469	Church	36,307	9,187	28.1	37.9	9.8
CH470	Church	15,830	5,944	89.0	149.4	60.4
CH471	Church	34,666	3,437	47.4	68.0	20.6
CH472	Church	34,478	360	75.3	54.7	-20.6
CH479	Church	29,687	3,172	39.9	72.2	32.3
CH480	Church	36,132	8,126	46.6	78.6	32.0
CH481	Church	6,983	6,070	19.7	24.6	4.9
CH482	Church	35,540	2,955	64.4	74.9	10.5
CH485	Church	37,466	9,880	11.9	12.8	0.9
CH493	Church	36,143	9,513	21.2	24.5	3.3
CH497	Church	12,760	12,329	0.2	0.3	0.1
CH500	Church	29,680	2,945	52.4	75.6	23.2
CH503	Church	-2,777	-7,028	42.7	33.2	-9.5
CH507	Church	38,086	-1,785	4.4	3.4	-1.0
CH509	Church	34,671	8,932	30.2	47.6	17.4
CH513	Church	17,184	8,722	3.4	3.0	-0.4
CH518	Church	5,989	6,176	9.0	14.9	5.9
CH519	Church	-4,691	6,400	9.3	24.4	15.1
CH520	Church	3,327	10,191	0.1	0.1	0.0
CH521	Church	427	8,681	1.5	4.7	3.2
CH522	Church	13,607	1,267	16.9	62.3	45.4
CH524	Church	34,683	4,171	23.8	52.5	28.7
CH529	Church	37,462	-1,270	11.2	10.4	-0.8
CH532	Church	23,813	9,141	5.7	3.8	-1.9
CH540	Church	29,454	359	102.5	78.1	-24.4
CH541	Church	29,669	654	104.3	81.4	-22.9
CH542	Church	30,078	1,173	102.3	87.6	-14.7
HOS05	Hospital	15,713	-5,495	1.0	1.1	0.1
HOS07	Hospital	15,334	-5,123	1.3	1.5	0.2
HOS09	Hospital	23,095	8,420	22.2	25.8	3.6
HOS10	Hospital	18,684	3,896	68.1	130.2	62.1
HOS11	Hospital	18,500	8,884	3.8	3.0	-0.8
HOS12	Hospital	13,791	-5,987	1.3	0.9	-0.4
HOS13	Hospital	29,985	5,901	57.2	104.6	47.4
HOS15	Hospital	17,190	1,285	46.5	90.7	44.2
HOS16	Hospital	13,553	7,081	22.0	27.0	5.0
HOS18	Hospital	13,797	-3,917	6.0	4.6	-1.4
HOS19	Hospital	17,676	2,790	13.1	46.4	33.3
LIB01	Library	15,816	-9,101	0.0	0.0	0.0
LIB02	Library	15,450	7,185	31.8	43.9	12.1
LIB03	Library	24,178	-3,305	3.9	2.3	-1.6
LIB04	Library	23,842	6,513	79.3	134.8	55.5
LIB05	Library	3,672	4,468	111.1	176.8	65.7
LIB06	Library	32,350	-1,151	35.7	18.6	-17.1
LIB07	Library	16,622	-1,444	115.9	70.8	-45.1
LIB10	Library	37,424	2,049	79.3	71.1	-8.2
LIB11	Library	-3,147	-6,769	52.0	42.7	-9.3
LIB13	Library	-3,179	6,210	12.8	29.7	16.9
NH003	Hospital, Convalescent	29,488	7,434	60.8	106.8	46.0
NH004	Hospital, Convalescent	34,331	5,967	36.2	76.2	40.0

Table M-13 (12 of 12)

Location Points TA-65 Values and Comparison: Baseline 2003 Conditions and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 TA-65	Project (2005) TA-65	Difference
PVS101	Private School	29,432	-911	64.9	33.1	-31.8
PVS103	Private School	3,278	9,736	0.1	0.3	0.2
PVS104	Private School	9,240	3,525	116.3	169.3	53.0
PVS105	Private School	14,468	-9,493	0.0	0.0	0.0
PVS106	Private School	26,663	6,419	74.0	126.6	52.6
PVS107	Private School	3,658	5,088	72.0	123.5	51.5
PVS108	Private School	23,359	6,499	80.4	137.0	56.6
PVS109	Private School	18,639	3,216	26.6	66.6	40.0
PVS110	Private School	-573	-8,780	7.8	4.7	-3.1
PVS111	Private School	16,874	-6,105	0.5	0.5	0.0
<i>PVS115</i>	<i>Private School</i>	<i>15,907</i>	<i>3,499</i>	<i>58.0</i>	<i>115.2</i>	<i>57.2</i>
<i>PVS116</i>	<i>Private School</i>	<i>30,035</i>	<i>1,171</i>	<i>102.4</i>	<i>87.7</i>	<i>-14.7</i>
<i>PVS117</i>	<i>Private School</i>	<i>30,486</i>	<i>1,003</i>	<i>101.6</i>	<i>84.3</i>	<i>-17.3</i>
PBS114	Private School	9,738	3,976	110.5	169.2	58.7
PBS116	Private School	8,575	4,739	103.9	159.1	55.2
PVS138	Private School	-2,901	10,004	0.0	0.0	0.0

Note:

TA-65 = Total number of minutes per day that exceed 65 decibels at indicated location.

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Table M-14 (4 of 12)

Location Points TA-75 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-75	Project (2005) TA-75	Difference
X05	Regular Grid	48,000	0	0.0	0.0	0.0
X06	Regular Grid	48,000	3,000	1.9	3.4	1.5
X07	Regular Grid	48,000	6,000	0.0	0.6	0.6
X08	Regular Grid	48,000	9,000	0.6	0.1	-0.5
X09	Regular Grid	48,000	12,000	0.0	0.0	0.0
Y01	Regular Grid	51,000	-12,000	0.0	0.0	0.0
Y02	Regular Grid	51,000	-9,000	0.0	0.0	0.0
Y03	Regular Grid	51,000	-6,000	0.0	0.0	0.0
Y04	Regular Grid	51,000	-3,000	0.0	0.0	0.0
Y05	Regular Grid	51,000	0	0.0	0.0	0.0
Y06	Regular Grid	51,000	3,000	1.4	0.8	-0.6
Y07	Regular Grid	51,000	6,000	0.1	0.1	0.0
Y08	Regular Grid	51,000	9,000	0.1	0.2	0.1
Y09	Regular Grid	51,000	12,000	0.0	0.0	0.0
Z01	Regular Grid	54,000	-12,000	0.0	0.0	0.0
Z02	Regular Grid	54,000	-9,000	0.0	0.0	0.0
Z03	Regular Grid	54,000	-6,000	0.0	0.0	0.0
Z04	Regular Grid	54,000	-3,000	0.0	0.0	0.0
Z05	Regular Grid	54,000	0	0.0	0.0	0.0
Z06	Regular Grid	54,000	3,000	0.2	0.2	0.0
Z07	Regular Grid	54,000	6,000	0.1	0.3	0.2
Z08	Regular Grid	54,000	9,000	0.0	0.0	0.0
Z09	Regular Grid	54,000	12,000	0.0	0.0	0.0
CH006	Church	18,362	851	9.4	35.8	26.4
CH008	Church	-1,056	-6,191	1.7	0.7	-1.0
CH011	Church	33,776	-3,732	0.1	0.0	-0.1
CH012	Church	34,672	611	5.1	6.4	1.3
CH019	Church	16,609	-6,394	0.0	0.0	0.0
CH020	Church	16,609	-5,892	0.0	0.0	0.0
CH022	Church	18,259	9,542	0.1	0.1	0.0
CH025	Church	16,984	-6,155	0.0	0.0	0.0
CH026	Church	772	5,897	0.2	1.7	1.5
CH030	Church	37,397	-3,562	0.0	0.0	0.0
CH031	Church	29,694	4,531	0.4	1.2	0.8
CH032	Church	34,999	-2,528	0.1	0.0	-0.1
CH037	Church	12,173	2,634	0.7	3.9	3.2
CH044	Church	29,459	444	15.6	11.8	-3.8
CH047	Church	36,169	6,797	2.1	1.1	-1.0
CH048	Church	36,695	2,519	3.3	10.6	7.3
CH049	Church	29,734	8,749	0.8	0.1	-0.7
CH052	Church	28,386	11,458	0.0	0.1	0.1
CH053	Church	32,138	10,827	0.0	0.1	0.1
CH056	Church	29,496	10,032	0.0	0.1	0.1
CH058	Church	37,445	-3,804	0.0	0.0	0.0
CH060	Church	37,453	1,503	5.3	7.6	2.3
CH062	Church	18,436	-9,362	0.0	0.0	0.0
CH067	Church	24,220	9,999	0.1	0.1	0.0
CH069	Church	24,032	-1,953	1.0	0.4	-0.6
CH072	Church	36,144	10,802	0.0	0.1	0.1
CH075	Church	36,127	-1,223	0.1	0.1	0.0
CH076	Church	36,351	8,763	1.5	0.1	-1.4
CH078	Church	30,942	225	8.5	8.1	-0.4
CH082	Church	15,556	4,179	14.6	28.0	13.4

Table M-14 (8 of 12)

Location Points TA-75 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-75	Project (2005) TA-75	Difference
CH459	Church	34,981	4,311	0.2	1.3	1.1
CH461	Church	2,474	-5,106	1.4	0.5	-0.9
CH462	Church	37,658	2,565	3.2	9.9	6.7
CH463	Church	28,157	7,476	3.2	1.3	-1.9
CH465	Church	29,437	-2,633	0.1	0.1	0.0
CH469	Church	36,307	9,187	0.9	0.0	-0.9
CH470	Church	15,830	5,944	17.2	23.5	6.3
CH471	Church	34,666	3,437	1.2	7.6	6.4
CH472	Church	34,478	360	3.5	4.5	1.0
CH479	Church	29,687	3,172	0.5	7.8	7.3
CH480	Church	36,132	8,126	2.2	0.7	-1.5
CH481	Church	6,983	6,070	0.3	1.0	0.7
CH482	Church	35,540	2,955	2.6	9.9	7.3
CH485	Church	37,466	9,880	0.0	0.0	0.0
CH493	Church	36,143	9,513	0.1	0.0	-0.1
CH497	Church	12,760	12,329	0.0	0.0	0.0
CH500	Church	29,680	2,945	1.7	9.4	7.7
CH503	Church	-2,777	-7,028	1.2	0.3	-0.9
CH507	Church	38,086	-1,785	0.1	0.0	-0.1
CH509	Church	34,671	8,932	1.2	0.0	-1.2
CH513	Church	17,184	8,722	0.1	0.2	0.1
CH518	Church	5,989	6,176	0.2	0.8	0.6
CH519	Church	-4,691	6,400	0.0	0.0	0.0
CH520	Church	3,327	10,191	0.0	0.0	0.0
CH521	Church	427	8,681	0.0	0.0	0.0
CH522	Church	13,607	1,267	1.0	6.3	5.3
CH524	Church	34,683	4,171	0.2	1.7	1.5
CH529	Church	37,462	-1,270	0.1	0.1	0.0
CH532	Church	23,813	9,141	0.1	0.1	0.0
CH540	Church	29,454	359	14.7	11.0	-3.7
CH541	Church	29,669	654	16.5	14.0	-2.5
CH542	Church	30,078	1,173	14.8	16.6	1.8
HOS05	Hospital	15,713	-5,495	0.0	0.0	0.0
HOS07	Hospital	15,334	-5,123	0.0	0.0	0.0
HOS09	Hospital	23,095	8,420	0.2	0.2	0.0
HOS10	Hospital	18,684	3,896	3.5	6.8	3.3
HOS11	Hospital	18,500	8,884	0.1	0.2	0.1
HOS12	Hospital	13,791	-5,987	0.0	0.0	0.0
HOS13	Hospital	29,985	5,901	2.8	2.7	-0.1
HOS15	Hospital	17,190	1,285	1.6	16.0	14.4
HOS16	Hospital	13,553	7,081	0.3	0.5	0.2
HOS18	Hospital	13,797	-3,917	0.2	0.2	0.0
HOS19	Hospital	17,676	2,790	0.6	2.2	1.6
LIB01	Library	15,816	-9,101	0.0	0.0	0.0
LIB02	Library	15,450	7,185	0.7	0.5	-0.2
LIB03	Library	24,178	-3,305	0.1	0.1	0.0
LIB04	Library	23,842	6,513	8.7	9.0	0.3
LIB05	Library	3,672	4,468	21.3	35.3	14.0
LIB06	Library	32,350	-1,151	0.3	0.2	-0.1
LIB07	Library	16,622	-1,444	34.5	9.0	-25.5
LIB10	Library	37,424	2,049	5.0	9.5	4.5
LIB11	Library	-3,147	-6,769	1.7	0.8	-0.9
LIB13	Library	-3,179	6,210	0.0	0.0	0.0
NH003	Hospital, Convalescent	29,488	7,434	3.3	1.5	-1.8
NH004	Hospital, Convalescent	34,331	5,967	1.7	1.1	-0.6

Table M-14 (12 of 12)

Location Points TA-75 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-75	Project (2005) TA-75	Difference
PVS101	Private School	29,432	-911	2.7	0.4	-2.3
PVS103	Private School	3,278	9,736	0.0	0.0	0.0
PVS104	Private School	9,240	3,525	22.1	44.3	22.2
PVS105	Private School	14,468	-9,493	0.0	0.0	0.0
PVS106	Private School	26,663	6,419	4.7	6.9	2.2
PVS107	Private School	3,658	5,088	2.1	2.4	0.3
PVS108	Private School	23,359	6,499	9.4	10.3	0.9
PVS109	Private School	18,639	3,216	0.7	3.1	2.4
PVS110	Private School	-573	-8,780	0.0	0.0	0.0
PVS111	Private School	16,874	-6,105	0.0	0.0	0.0
PVS115	Private School	15,907	3,499	3.2	8.0	4.8
PVS116	Private School	30,035	1,171	14.9	16.8	1.9
PVS117	Private School	30,486	1,003	14.8	15.2	0.4
PBS114	Private School	9,738	3,976	36.6	65.9	29.3
PBS116	Private School	8,575	4,739	38.5	57.4	18.9
PVS138	Private School	-2,901	10,004	0.0	0.0	0.0

Note:

TA-75 = Total number of minutes per day that exceed 75 decibels at indicated location.

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Table M-15 (4 of 12)

Location Points TA-85 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-85	Project (2005) TA-85	Difference
X05	Regular Grid	48,000	0	0.0	0.0	0.0
X06	Regular Grid	48,000	3,000	0.0	0.0	0.0
X07	Regular Grid	48,000	6,000	0.0	0.0	0.0
X08	Regular Grid	48,000	9,000	0.0	0.0	0.0
X09	Regular Grid	48,000	12,000	0.0	0.0	0.0
Y01	Regular Grid	51,000	-12,000	0.0	0.0	0.0
Y02	Regular Grid	51,000	-9,000	0.0	0.0	0.0
Y03	Regular Grid	51,000	-6,000	0.0	0.0	0.0
Y04	Regular Grid	51,000	-3,000	0.0	0.0	0.0
Y05	Regular Grid	51,000	0	0.0	0.0	0.0
Y06	Regular Grid	51,000	3,000	0.0	0.0	0.0
Y07	Regular Grid	51,000	6,000	0.0	0.0	0.0
Y08	Regular Grid	51,000	9,000	0.0	0.0	0.0
Y09	Regular Grid	51,000	12,000	0.0	0.0	0.0
Z01	Regular Grid	54,000	-12,000	0.0	0.0	0.0
Z02	Regular Grid	54,000	-9,000	0.0	0.0	0.0
Z03	Regular Grid	54,000	-6,000	0.0	0.0	0.0
Z04	Regular Grid	54,000	-3,000	0.0	0.0	0.0
Z05	Regular Grid	54,000	0	0.0	0.0	0.0
Z06	Regular Grid	54,000	3,000	0.0	0.0	0.0
Z07	Regular Grid	54,000	6,000	0.0	0.0	0.0
Z08	Regular Grid	54,000	9,000	0.0	0.0	0.0
Z09	Regular Grid	54,000	12,000	0.0	0.0	0.0
CH006	Church	18,362	851	0.2	3.8	3.6
CH008	Church	-1,056	-6,191	0.0	0.0	0.0
CH011	Church	33,776	-3,732	0.0	0.0	0.0
CH012	Church	34,672	611	0.0	0.0	0.0
CH019	Church	16,609	-6,394	0.0	0.0	0.0
CH020	Church	16,609	-5,892	0.0	0.0	0.0
CH022	Church	18,259	9,542	0.0	0.0	0.0
CH025	Church	16,984	-6,155	0.0	0.0	0.0
CH026	Church	772	5,897	0.0	0.0	0.0
CH030	Church	37,397	-3,562	0.0	0.0	0.0
CH031	Church	29,694	4,531	0.0	0.0	0.0
CH032	Church	34,999	-2,528	0.0	0.0	0.0
CH037	Church	12,173	2,634	0.0	0.1	0.1
CH044	Church	29,459	444	0.0	0.0	0.0
CH047	Church	36,169	6,797	0.0	0.0	0.0
CH048	Church	36,695	2,519	0.0	0.0	0.0
CH049	Church	29,734	8,749	0.0	0.0	0.0
CH052	Church	28,386	11,458	0.0	0.0	0.0
CH053	Church	32,138	10,827	0.0	0.0	0.0
CH056	Church	29,496	10,032	0.0	0.0	0.0
CH058	Church	37,445	-3,804	0.0	0.0	0.0
CH060	Church	37,453	1,503	0.0	0.0	0.0
CH062	Church	18,436	-9,362	0.0	0.0	0.0
CH067	Church	24,220	9,999	0.0	0.0	0.0
CH069	Church	24,032	-1,953	0.0	0.0	0.0
CH072	Church	36,144	10,802	0.0	0.0	0.0
CH075	Church	36,127	-1,223	0.0	0.0	0.0
CH076	Church	36,351	8,763	0.0	0.0	0.0
CH078	Church	30,942	225	0.0	0.0	0.0
CH082	Church	15,556	4,179	0.2	1.0	0.8

Table M-15 (8 of 12)

Location Points TA-85 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-85	Project (2005) TA-85	Difference
CH459	Church	34,981	4,311	0.0	0.0	0.0
CH461	Church	2,474	-5,106	0.0	0.0	0.0
CH462	Church	37,658	2,565	0.0	0.0	0.0
CH463	Church	28,157	7,476	0.0	0.0	0.0
CH465	Church	29,437	-2,633	0.0	0.0	0.0
CH469	Church	36,307	9,187	0.0	0.0	0.0
CH470	Church	15,830	5,944	0.6	0.1	-0.5
CH471	Church	34,666	3,437	0.0	0.0	0.0
CH472	Church	34,478	360	0.0	0.0	0.0
CH479	Church	29,687	3,172	0.0	0.0	0.0
CH480	Church	36,132	8,126	0.0	0.0	0.0
CH481	Church	6,983	6,070	0.0	0.0	0.0
CH482	Church	35,540	2,955	0.0	0.0	0.0
CH485	Church	37,466	9,880	0.0	0.0	0.0
CH493	Church	36,143	9,513	0.0	0.0	0.0
CH497	Church	12,760	12,329	0.0	0.0	0.0
CH500	Church	29,680	2,945	0.0	0.0	0.0
CH503	Church	-2,777	-7,028	0.0	0.0	0.0
CH507	Church	38,086	-1,785	0.0	0.0	0.0
CH509	Church	34,671	8,932	0.0	0.0	0.0
CH513	Church	17,184	8,722	0.0	0.0	0.0
CH518	Church	5,989	6,176	0.0	0.0	0.0
CH519	Church	-4,691	6,400	0.0	0.0	0.0
CH520	Church	3,327	10,191	0.0	0.0	0.0
CH521	Church	427	8,681	0.0	0.0	0.0
CH522	Church	13,607	1,267	0.1	0.1	0.0
CH524	Church	34,683	4,171	0.0	0.0	0.0
CH529	Church	37,462	-1,270	0.0	0.0	0.0
CH532	Church	23,813	9,141	0.0	0.0	0.0
CH540	Church	29,454	359	0.0	0.0	0.0
CH541	Church	29,669	654	0.1	0.0	-0.1
CH542	Church	30,078	1,173	0.0	0.0	0.0
HOS05	Hospital	15,713	-5,495	0.0	0.0	0.0
HOS07	Hospital	15,334	-5,123	0.0	0.0	0.0
HOS09	Hospital	23,095	8,420	0.0	0.0	0.0
HOS10	Hospital	18,684	3,896	0.0	0.1	0.1
HOS11	Hospital	18,500	8,884	0.0	0.0	0.0
HOS12	Hospital	13,791	-5,987	0.0	0.0	0.0
HOS13	Hospital	29,985	5,901	0.0	0.0	0.0
HOS15	Hospital	17,190	1,285	0.1	0.1	0.0
HOS16	Hospital	13,553	7,081	0.0	0.0	0.0
HOS18	Hospital	13,797	-3,917	0.0	0.0	0.0
HOS19	Hospital	17,676	2,790	0.0	0.0	0.0
LIB01	Library	15,816	-9,101	0.0	0.0	0.0
LIB02	Library	15,450	7,185	0.0	0.0	0.0
LIB03	Library	24,178	-3,305	0.0	0.0	0.0
LIB04	Library	23,842	6,513	0.0	0.0	0.0
LIB05	Library	3,672	4,468	1.0	0.3	-0.7
LIB06	Library	32,350	-1,151	0.0	0.0	0.0
LIB07	Library	16,622	-1,444	1.5	0.1	-1.4
LIB10	Library	37,424	2,049	0.0	0.0	0.0
LIB11	Library	-3,147	-6,769	0.0	0.0	0.0
LIB13	Library	-3,179	6,210	0.0	0.0	0.0
NH003	Hospital, Convalescent	29,488	7,434	0.0	0.0	0.0
NH004	Hospital, Convalescent	34,331	5,967	0.0	0.0	0.0

Table M-15 (12 of 12)

Location Points TA-85 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 TA-85	Project (2005) TA-85	Difference
PVS101	Private School	29,432	-911	0.0	0.0	0.0
PVS103	Private School	3,278	9,736	0.0	0.0	0.0
PVS104	Private School	9,240	3,525	1.3	4.0	2.7
PVS105	Private School	14,468	-9,493	0.0	0.0	0.0
PVS106	Private School	26,663	6,419	0.0	0.0	0.0
PVS107	Private School	3,658	5,088	0.0	0.1	0.1
PVS108	Private School	23,359	6,499	0.0	0.0	0.0
PVS109	Private School	18,639	3,216	0.0	0.1	0.1
PVS110	Private School	-573	-8,780	0.0	0.0	0.0
PVS111	Private School	16,874	-6,105	0.0	0.0	0.0
PVS115	Private School	15,907	3,499	0.0	0.1	0.1
PVS116	Private School	30,035	1,171	0.0	0.0	0.0
PVS117	Private School	30,486	1,003	0.0	0.0	0.0
PBS114	Private School	9,738	3,976	2.1	3.7	1.6
PBS116	Private School	8,575	4,739	2.1	2.1	0.0
PVS138	Private School	-2,901	10,004	0.0	0.0	0.0

Note:

TA-85 = Total number of minutes per day that exceed 75 decibels at indicated location.

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Table M-16 (4 of 12)

Location Points TA-95 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 TA-95	Project (2005) TA-95	Difference
X05	Regular Grid	48,000	0	0.0	0.0	0.0
X06	Regular Grid	48,000	3,000	0.0	0.0	0.0
X07	Regular Grid	48,000	6,000	0.0	0.0	0.0
X08	Regular Grid	48,000	9,000	0.0	0.0	0.0
X09	Regular Grid	48,000	12,000	0.0	0.0	0.0
Y01	Regular Grid	51,000	-12,000	0.0	0.0	0.0
Y02	Regular Grid	51,000	-9,000	0.0	0.0	0.0
Y03	Regular Grid	51,000	-6,000	0.0	0.0	0.0
Y04	Regular Grid	51,000	-3,000	0.0	0.0	0.0
Y05	Regular Grid	51,000	0	0.0	0.0	0.0
Y06	Regular Grid	51,000	3,000	0.0	0.0	0.0
Y07	Regular Grid	51,000	6,000	0.0	0.0	0.0
Y08	Regular Grid	51,000	9,000	0.0	0.0	0.0
Y09	Regular Grid	51,000	12,000	0.0	0.0	0.0
Z01	Regular Grid	54,000	-12,000	0.0	0.0	0.0
Z02	Regular Grid	54,000	-9,000	0.0	0.0	0.0
Z03	Regular Grid	54,000	-6,000	0.0	0.0	0.0
Z04	Regular Grid	54,000	-3,000	0.0	0.0	0.0
Z05	Regular Grid	54,000	0	0.0	0.0	0.0
Z06	Regular Grid	54,000	3,000	0.0	0.0	0.0
Z07	Regular Grid	54,000	6,000	0.0	0.0	0.0
Z08	Regular Grid	54,000	9,000	0.0	0.0	0.0
Z09	Regular Grid	54,000	12,000	0.0	0.0	0.0
CH006	Church	18,362	851	0.0	0.0	0.0
CH008	Church	-1,056	-6,191	0.0	0.0	0.0
CH011	Church	33,776	-3,732	0.0	0.0	0.0
CH012	Church	34,672	611	0.0	0.0	0.0
CH019	Church	16,609	-6,394	0.0	0.0	0.0
CH020	Church	16,609	-5,892	0.0	0.0	0.0
CH022	Church	18,259	9,542	0.0	0.0	0.0
CH025	Church	16,984	-6,155	0.0	0.0	0.0
CH026	Church	772	5,897	0.0	0.0	0.0
CH030	Church	37,397	-3,562	0.0	0.0	0.0
CH031	Church	29,694	4,531	0.0	0.0	0.0
CH032	Church	34,999	-2,528	0.0	0.0	0.0
CH037	Church	12,173	2,634	0.0	0.0	0.0
CH044	Church	29,459	444	0.0	0.0	0.0
CH047	Church	36,169	6,797	0.0	0.0	0.0
CH048	Church	36,695	2,519	0.0	0.0	0.0
CH049	Church	29,734	8,749	0.0	0.0	0.0
CH052	Church	28,386	11,458	0.0	0.0	0.0
CH053	Church	32,138	10,827	0.0	0.0	0.0
CH056	Church	29,496	10,032	0.0	0.0	0.0
CH058	Church	37,445	-3,804	0.0	0.0	0.0
CH060	Church	37,453	1,503	0.0	0.0	0.0
CH062	Church	18,436	-9,362	0.0	0.0	0.0
CH067	Church	24,220	9,999	0.0	0.0	0.0
CH069	Church	24,032	-1,953	0.0	0.0	0.0
CH072	Church	36,144	10,802	0.0	0.0	0.0
CH075	Church	36,127	-1,223	0.0	0.0	0.0
CH076	Church	36,351	8,763	0.0	0.0	0.0
CH078	Church	30,942	225	0.0	0.0	0.0
CH082	Church	15,556	4,179	0.0	0.0	0.0

Table M-16 (8 of 12)

Location Points TA-95 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 TA-95	Project (2005) TA-95	Difference
CH459	Church	34,981	4,311	0.0	0.0	0.0
CH461	Church	2,474	-5,106	0.0	0.0	0.0
CH462	Church	37,658	2,565	0.0	0.0	0.0
CH463	Church	28,157	7,476	0.0	0.0	0.0
CH465	Church	29,437	-2,633	0.0	0.0	0.0
CH469	Church	36,307	9,187	0.0	0.0	0.0
CH470	Church	15,830	5,944	0.0	0.0	0.0
CH471	Church	34,666	3,437	0.0	0.0	0.0
CH472	Church	34,478	360	0.0	0.0	0.0
CH479	Church	29,687	3,172	0.0	0.0	0.0
CH480	Church	36,132	8,126	0.0	0.0	0.0
CH481	Church	6,983	6,070	0.0	0.0	0.0
CH482	Church	35,540	2,955	0.0	0.0	0.0
CH485	Church	37,466	9,880	0.0	0.0	0.0
CH493	Church	36,143	9,513	0.0	0.0	0.0
CH497	Church	12,760	12,329	0.0	0.0	0.0
CH500	Church	29,680	2,945	0.0	0.0	0.0
CH503	Church	-2,777	-7,028	0.0	0.0	0.0
CH507	Church	38,086	-1,785	0.0	0.0	0.0
CH509	Church	34,671	8,932	0.0	0.0	0.0
CH513	Church	17,184	8,722	0.0	0.0	0.0
CH518	Church	5,989	6,176	0.0	0.0	0.0
CH519	Church	-4,691	6,400	0.0	0.0	0.0
CH520	Church	3,327	10,191	0.0	0.0	0.0
CH521	Church	427	8,681	0.0	0.0	0.0
CH522	Church	13,607	1,267	0.0	0.0	0.0
CH524	Church	34,683	4,171	0.0	0.0	0.0
CH529	Church	37,462	-1,270	0.0	0.0	0.0
CH532	Church	23,813	9,141	0.0	0.0	0.0
CH540	Church	29,454	359	0.0	0.0	0.0
CH541	Church	29,669	654	0.0	0.0	0.0
CH542	Church	30,078	1,173	0.0	0.0	0.0
HOS05	Hospital	15,713	-5,495	0.0	0.0	0.0
HOS07	Hospital	15,334	-5,123	0.0	0.0	0.0
HOS09	Hospital	23,095	8,420	0.0	0.0	0.0
HOS10	Hospital	18,684	3,896	0.0	0.0	0.0
HOS11	Hospital	18,500	8,884	0.0	0.0	0.0
HOS12	Hospital	13,791	-5,987	0.0	0.0	0.0
HOS13	Hospital	29,985	5,901	0.0	0.0	0.0
HOS15	Hospital	17,190	1,285	0.0	0.0	0.0
HOS16	Hospital	13,553	7,081	0.0	0.0	0.0
HOS18	Hospital	13,797	-3,917	0.0	0.0	0.0
HOS19	Hospital	17,676	2,790	0.0	0.0	0.0
LIB01	Library	15,816	-9,101	0.0	0.0	0.0
LIB02	Library	15,450	7,185	0.0	0.0	0.0
LIB03	Library	24,178	-3,305	0.0	0.0	0.0
LIB04	Library	23,842	6,513	0.0	0.0	0.0
LIB05	Library	3,672	4,468	0.0	0.0	0.0
LIB06	Library	32,350	-1,151	0.0	0.0	0.0
LIB07	Library	16,622	-1,444	0.0	0.0	0.0
LIB10	Library	37,424	2,049	0.0	0.0	0.0
LIB11	Library	-3,147	-6,769	0.0	0.0	0.0
LIB13	Library	-3,179	6,210	0.0	0.0	0.0
NH003	Hospital, Convalescent	29,488	7,434	0.0	0.0	0.0
NH004	Hospital, Convalescent	34,331	5,967	0.0	0.0	0.0

Table M-16 (12 of 12)

Location Points TA-95 Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 TA-95	Project (2005) TA-95	Difference
PVS101	Private School	29,432	-911	0.0	0.0	0.0
PVS103	Private School	3,278	9,736	0.0	0.0	0.0
PVS104	Private School	9,240	3,525	0.0	0.0	0.0
PVS105	Private School	14,468	-9,493	0.0	0.0	0.0
PVS106	Private School	26,663	6,419	0.0	0.0	0.0
PVS107	Private School	3,658	5,088	0.0	0.0	0.0
PVS108	Private School	23,359	6,499	0.0	0.0	0.0
PVS109	Private School	18,639	3,216	0.0	0.0	0.0
PVS110	Private School	-573	-8,780	0.0	0.0	0.0
PVS111	Private School	16,874	-6,105	0.0	0.0	0.0
PVS115	Private School	15,907	3,499	0.0	0.0	0.0
PVS116	Private School	30,035	1,171	0.0	0.0	0.0
PVS117	Private School	30,486	1,003	0.0	0.0	0.0
PBS114	Private School	9,738	3,976	0.0	0.0	0.0
PBS116	Private School	8,575	4,739	0.0	0.0	0.0
PVS138	Private School	-2,901	10,004	0.0	0.0	0.0

Note:

TA-95 = Total number of minutes per day that exceed 75 decibels at indicated location.

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Table M-17 (4 of 12)

Location Points L_{eq} Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 L _{eq}	Project (2005) L _{eq}	Difference
X05	Regular Grid	48,000	0	51.7	51.0	-0.7
X06	Regular Grid	48,000	3,000	56.5	56.8	0.3
X07	Regular Grid	48,000	6,000	53.4	55.8	2.4
X08	Regular Grid	48,000	9,000	53.7	55.3	1.6
X09	Regular Grid	48,000	12,000	49.1	51.4	2.3
Y01	Regular Grid	51,000	-12,000	33.3	32.8	-0.5
Y02	Regular Grid	51,000	-9,000	35.7	35.0	-0.7
Y03	Regular Grid	51,000	-6,000	38.9	38.3	-0.6
Y04	Regular Grid	51,000	-3,000	43.4	42.8	-0.6
Y05	Regular Grid	51,000	0	50.6	49.8	-0.8
Y06	Regular Grid	51,000	3,000	55.7	55.4	-0.3
Y07	Regular Grid	51,000	6,000	53.3	55.5	2.2
Y08	Regular Grid	51,000	9,000	53.1	55.1	2.0
Y09	Regular Grid	51,000	12,000	49.3	52.0	2.7
Z01	Regular Grid	54,000	-12,000	33.0	32.4	-0.6
Z02	Regular Grid	54,000	-9,000	35.2	34.6	-0.6
Z03	Regular Grid	54,000	-6,000	38.5	37.7	-0.8
Z04	Regular Grid	54,000	-3,000	42.7	42.0	-0.7
Z05	Regular Grid	54,000	0	49.5	48.4	-1.1
Z06	Regular Grid	54,000	3,000	54.7	54.0	-0.7
Z07	Regular Grid	54,000	6,000	53.1	55.1	2.0
Z08	Regular Grid	54,000	9,000	52.5	54.5	2.0
Z09	Regular Grid	54,000	12,000	49.5	52.1	2.6
CH006	Church	18,362	851	60.9	65.8	4.9
CH008	Church	-1,056	-6,191	58.3	57.2	-1.1
CH011	Church	33,776	-3,732	45.9	45.4	-0.5
CH012	Church	34,672	611	59.2	58.1	-1.1
CH019	Church	16,609	-6,394	47.0	46.1	-0.9
CH020	Church	16,609	-5,892	47.5	46.7	-0.8
CH022	Church	18,259	9,542	48.0	49.4	1.4
CH025	Church	16,984	-6,155	47.0	46.1	-0.9
CH026	Church	772	5,897	57.8	60.2	2.4
CH030	Church	37,397	-3,562	45.3	44.8	-0.5
CH031	Church	29,694	4,531	55.0	57.7	2.7
CH032	Church	34,999	-2,528	48.7	47.9	-0.8
CH037	Church	12,173	2,634	56.4	59.4	3.0
CH044	Church	29,459	444	61.9	60.7	-1.2
CH047	Church	36,169	6,797	56.2	58.1	1.9
CH048	Church	36,695	2,519	58.7	60.3	1.6
CH049	Church	29,734	8,749	54.4	55.8	1.4
CH052	Church	28,386	11,458	45.5	47.1	1.6
CH053	Church	32,138	10,827	48.4	50.0	1.6
CH056	Church	29,496	10,032	49.9	51.4	1.5
CH058	Church	37,445	-3,804	44.8	44.3	-0.5
CH060	Church	37,453	1,503	59.2	58.9	-0.3
CH062	Church	18,436	-9,362	43.2	42.3	-0.9
CH067	Church	24,220	9,999	48.1	49.6	1.5
CH069	Church	24,032	-1,953	55.9	53.3	-2.6
CH072	Church	36,144	10,802	50.2	51.6	1.4
CH075	Church	36,127	-1,223	53.0	51.3	-1.7
CH076	Church	36,351	8,763	55.1	56.5	1.4
CH078	Church	30,942	225	60.5	59.1	-1.4
CH082	Church	15,556	4,179	61.6	64.6	3.0

Table M-17 (8 of 12)

Location Points L_{eq} Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 L_{eq}	Project (2005) L_{eq}	Difference
CH459	Church	34,981	4,311	54.9	57.7	2.8
CH461	Church	2,474	-5,106	58.4	57.3	-1.1
CH462	Church	37,658	2,565	58.5	60.0	1.5
CH463	Church	28,157	7,476	57.8	59.2	1.4
CH465	Church	29,437	-2,633	50.4	49.3	-1.1
CH469	Church	36,307	9,187	54.1	55.5	1.4
CH470	Church	15,830	5,944	62.0	63.3	1.3
CH471	Church	34,666	3,437	56.4	59.2	2.8
CH472	Church	34,478	360	58.7	57.5	-1.2
CH479	Church	29,687	3,172	56.1	59.5	3.4
CH480	Church	36,132	8,126	56.2	57.6	1.4
CH481	Church	6,983	6,070	55.5	56.6	1.1
CH482	Church	35,540	2,955	57.7	60.1	2.4
CH485	Church	37,466	9,880	52.5	54.0	1.5
CH493	Church	36,143	9,513	53.2	54.7	1.5
CH497	Church	12,760	12,329	44.1	44.8	0.7
CH500	Church	29,680	2,945	57.0	60.0	3.0
CH503	Church	-2,777	-7,028	56.7	55.7	-1.0
CH507	Church	38,086	-1,785	50.0	48.9	-1.1
CH509	Church	34,671	8,932	54.5	55.9	1.4
CH513	Church	17,184	8,722	49.6	51.1	1.5
CH518	Church	5,989	6,176	54.8	56.1	1.3
CH519	Church	-4,691	6,400	53.5	55.7	2.2
CH520	Church	3,327	10,191	48.6	50.2	1.6
CH521	Church	427	8,681	51.2	53.2	2.0
CH522	Church	13,607	1,267	55.3	59.2	3.9
CH524	Church	34,683	4,171	55.1	57.9	2.8
CH529	Church	37,462	-1,270	52.2	50.7	-1.5
CH532	Church	23,813	9,141	50.7	52.2	1.5
CH540	Church	29,454	359	61.7	60.4	-1.3
CH541	Church	29,669	654	62.0	61.2	-0.8
CH542	Church	30,078	1,173	61.8	62.3	0.5
HOS05	Hospital	15,713	-5,495	48.7	47.8	-0.9
HOS07	Hospital	15,334	-5,123	49.5	48.6	-0.9
HOS09	Hospital	23,095	8,420	53.5	54.8	1.3
HOS10	Hospital	18,684	3,896	58.4	61.4	3.0
HOS11	Hospital	18,500	8,884	49.6	51.2	1.6
HOS12	Hospital	13,791	-5,987	50.1	49.0	-1.1
HOS13	Hospital	29,985	5,901	57.5	59.5	2.0
HOS15	Hospital	17,190	1,285	57.3	62.3	5.0
HOS16	Hospital	13,553	7,081	54.2	55.4	1.2
HOS18	Hospital	13,797	-3,917	52.9	51.9	-1.0
HOS19	Hospital	17,676	2,790	54.3	57.9	3.6
LIB01	Library	15,816	-9,101	45.2	44.1	-1.1
LIB02	Library	15,450	7,185	54.9	56.2	1.3
LIB03	Library	24,178	-3,305	50.0	48.9	-1.1
LIB04	Library	23,842	6,513	60.3	61.8	1.5
LIB05	Library	3,672	4,468	63.5	64.7	1.2
LIB06	Library	32,350	-1,151	55.3	53.0	-2.3
LIB07	Library	16,622	-1,444	65.0	59.9	-5.1
LIB10	Library	37,424	2,049	59.2	59.8	0.6
LIB11	Library	-3,147	-6,769	57.6	56.6	-1.0
LIB13	Library	-3,179	6,210	53.9	56.1	2.2
NH003	Hospital, Convalescent	29,488	7,434	57.9	59.3	1.4
NH004	Hospital, Convalescent	34,331	5,967	55.6	57.8	2.2

Table M-17 (12 of 12)Location Points L_{eq} Values and Comparison: Baseline 2003 and Project (2005) Conditions

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 L_{eq}	Project (2005) L_{eq}	Difference
PVS101	Private School	29,432	-911	57.8	55.5	-2.3
PVS103	Private School	3,278	9,736	49.3	50.9	1.6
PVS104	Private School	9,240	3,525	64.0	67.6	3.6
PVS105	Private School	14,468	-9,493	45.8	44.6	-1.2
PVS106	Private School	26,663	6,419	59.6	61.2	1.6
PVS107	Private School	3,658	5,088	59.2	61.1	1.9
PVS108	Private School	23,359	6,499	60.4	61.8	1.4
PVS109	Private School	18,639	3,216	55.2	58.8	3.6
PVS110	Private School	-573	-8,780	51.7	51.0	-0.7
PVS111	Private School	16,874	-6,105	47.1	46.3	-0.8
PVS115	Private School	15,907	3,499	57.8	61.2	3.4
PVS116	Private School	30,035	1,171	61.8	62.3	0.5
PVS117	Private School	30,486	1,003	61.8	61.6	-0.2
PBS114	Private School	9,738	3,976	66.1	68.6	2.5
PBS116	Private School	8,575	4,739	66.7	67.6	0.9
PBS138	Private School	-2,901	10,004	47.5	49.1	1.6

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants-northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Table M-18 (4 of 12)

Location Points L_{max} Values and Comparison: Baseline 2003 and Project (2005)

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 L _{max}	Project (2005) L _{max}	Difference
X05	Regular Grid	48,000	0	81.6	76.5	-5.1
X06	Regular Grid	48,000	3,000	85.3	81.3	-4.0
X07	Regular Grid	48,000	6,000	82.2	78.4	-3.8
X08	Regular Grid	48,000	9,000	81.4	75.2	-6.2
X09	Regular Grid	48,000	12,000	78.5	73.8	-4.7
Y01	Regular Grid	51,000	-12,000	81.1	56.1	-25.0
Y02	Regular Grid	51,000	-9,000	81.1	58.3	-22.8
Y03	Regular Grid	51,000	-6,000	81.3	63.3	-18.0
Y04	Regular Grid	51,000	-3,000	82.9	68.3	-14.6
Y05	Regular Grid	51,000	0	80.4	75.6	-4.8
Y06	Regular Grid	51,000	3,000	82.9	80.5	-2.4
Y07	Regular Grid	51,000	6,000	81.8	78.8	-3.0
Y08	Regular Grid	51,000	9,000	81.2	76.0	-5.2
Y09	Regular Grid	51,000	12,000	77.8	74.0	-3.8
Z01	Regular Grid	54,000	-12,000	81.9	56.4	-25.5
Z02	Regular Grid	54,000	-9,000	79.2	58.2	-21.0
Z03	Regular Grid	54,000	-6,000	80.7	63.0	-17.7
Z04	Regular Grid	54,000	-3,000	81.8	67.5	-14.3
Z05	Regular Grid	54,000	0	79.3	74.7	-4.6
Z06	Regular Grid	54,000	3,000	82.2	79.8	-2.4
Z07	Regular Grid	54,000	6,000	81.2	79.1	-2.1
Z08	Regular Grid	54,000	9,000	80.9	74.2	-6.7
Z09	Regular Grid	54,000	12,000	78.1	73.4	-4.7
CH006	Church	18,362	851	95.1	93.4	-1.7
CH008	Church	-1,056	-6,191	82.8	77.7	-5.1
CH011	Church	33,776	-3,732	87.4	71.2	-16.2
CH012	Church	34,672	611	88.2	81.8	-6.4
CH019	Church	16,609	-6,394	88.8	71.7	-17.1
CH020	Church	16,609	-5,892	90.2	73.2	-17.0
CH022	Church	18,259	9,542	93.1	81.2	-11.9
CH025	Church	16,984	-6,155	90.1	72.2	-17.9
CH026	Church	772	5,897	84.3	81.0	-3.3
CH030	Church	37,397	-3,562	86.4	70.4	-16.0
CH031	Church	29,694	4,531	86.8	82.7	-4.1
CH032	Church	34,999	-2,528	87.7	74.5	-13.2
CH037	Church	12,173	2,634	93.9	91.1	-2.8
CH044	Church	29,459	444	94.0	87.6	-6.4
CH047	Church	36,169	6,797	83.6	79.4	-4.2
CH048	Church	36,695	2,519	88.5	83.4	-5.1
CH049	Church	29,734	8,749	86.0	87.4	1.4
CH052	Church	28,386	11,458	87.5	82.1	-5.4
CH053	Church	32,138	10,827	86.4	86.9	0.5
CH056	Church	29,496	10,032	87.4	87.4	0.0
CH058	Church	37,445	-3,804	86.2	70.0	-16.2
CH060	Church	37,453	1,503	88.2	82.4	-5.8
CH062	Church	18,436	-9,362	83.4	64.3	-19.1
CH067	Church	24,220	9,999	88.6	83.4	-5.2
CH069	Church	24,032	-1,953	92.3	84.1	-8.2
CH072	Church	36,144	10,802	84.3	84.4	0.1
CH075	Church	36,127	-1,223	86.6	77.3	-9.3
CH076	Church	36,351	8,763	81.1	79.0	-2.1
CH078	Church	30,942	225	89.5	85.5	-4.0
CH082	Church	15,556	4,179	93.9	95.8	1.9

Table M-18 (8 of 12)

Location Points L_{max} Values and Comparison: Baseline 2003 and Project (2005)

Grid Cell ID	Use	X Dist. (feet) ¹	Y Dist. (feet) ¹	2003 L _{max}	Project (2005) L _{max}	Difference
CH459	Church	34,981	4,311	85.7	80.3	-5.4
CH461	Church	2,474	-5,106	82.5	77.0	-5.5
CH462	Church	37,658	2,565	88.2	83.3	-4.9
CH463	Church	28,157	7,476	85.4	86.1	0.7
CH465	Church	29,437	-2,633	89.6	79.1	-10.5
CH469	Church	36,307	9,187	81.4	80.1	-1.3
CH470	Church	15,830	5,944	90.5	89.8	-0.7
CH471	Church	34,666	3,437	87.0	82.3	-4.7
CH472	Church	34,478	360	87.6	81.4	-6.2
CH479	Church	29,687	3,172	87.4	86.3	-1.1
CH480	Church	36,132	8,126	82.4	77.4	-5.0
CH481	Church	6,983	6,070	93.9	85.7	-8.2
CH482	Church	35,540	2,955	88.1	83.1	-5.0
CH485	Church	37,466	9,880	81.8	80.5	-1.3
CH493	Church	36,143	9,513	82.1	81.1	-1.0
CH497	Church	12,760	12,329	81.9	75.3	-6.6
CH500	Church	29,680	2,945	87.8	86.8	-1.0
CH503	Church	-2,777	-7,028	88.2	75.9	-12.3
CH507	Church	38,086	-1,785	86.3	75.3	-11.0
CH509	Church	34,671	8,932	82.2	81.4	-0.8
CH513	Church	17,184	8,722	92.8	80.7	-12.1
CH518	Church	5,989	6,176	96.0	84.5	-11.5
CH519	Church	-4,691	6,400	78.1	75.3	-2.8
CH520	Church	3,327	10,191	79.8	68.6	-11.2
CH521	Church	427	8,681	73.8	70.7	-3.1
CH522	Church	13,607	1,267	94.7	91.1	-3.6
CH524	Church	34,683	4,171	86.1	80.6	-5.5
CH529	Church	37,462	-1,270	86.1	76.7	-9.4
CH532	Church	23,813	9,141	88.3	85.6	-2.7
CH540	Church	29,454	359	90.9	87.5	-3.4
CH541	Church	29,669	654	91.2	87.9	-3.3
CH542	Church	30,078	1,173	90.8	88.3	-2.5
HOS05	Hospital	15,713	-5,495	89.9	74.6	-15.3
HOS07	Hospital	15,334	-5,123	90.4	75.9	-14.5
HOS09	Hospital	23,095	8,420	88.6	86.9	-1.7
HOS10	Hospital	18,684	3,896	91.3	91.6	0.3
HOS11	Hospital	18,500	8,884	90.3	82.5	-7.8
HOS12	Hospital	13,791	-5,987	82.4	73.9	-8.5
HOS13	Hospital	29,985	5,901	84.6	81.5	-3.1
HOS15	Hospital	17,190	1,285	94.3	91.8	-2.5
HOS16	Hospital	13,553	7,081	95.5	83.7	-11.8
HOS18	Hospital	13,797	-3,917	91.3	81.7	-9.6
HOS19	Hospital	17,676	2,790	92.9	89.4	-3.5
LIB01	Library	15,816	-9,101	76.9	65.5	-11.4
LIB02	Library	15,450	7,185	90.5	84.8	-5.7
LIB03	Library	24,178	-3,305	91.0	78.2	-12.8
LIB04	Library	23,842	6,513	88.8	89.8	1.0
LIB05	Library	3,672	4,468	96.5	94.2	-2.3
LIB06	Library	32,350	-1,151	88.2	80.3	-7.9
LIB07	Library	16,622	-1,444	96.4	91.1	-5.3
LIB10	Library	37,424	2,049	88.2	83.1	-5.1
LIB11	Library	-3,147	-6,769	93.0	77.2	-15.8
LIB13	Library	-3,179	6,210	76.5	74.3	-2.2
NH003	Hospital, Convalescent	29,488	7,434	84.1	84.0	-0.1
NH004	Hospital, Convalescent	34,331	5,967	84.2	79.3	-4.9

Table M-18 (12 of 12)

Location Points L_{max} Values and Comparison: Baseline 2003 and Project (2005)

Grid Cell ID	Use	X Dist. (feet)¹	Y Dist. (feet)¹	2003 L_{max}	Project (2005) L_{max}	Difference
PVS101	Private School	29,432	-911	88.3	84.2	-4.1
PVS103	Private School	3,278	9,736	80.4	69.7	-10.7
PVS104	Private School	9,240	3,525	98.0	101.7	3.7
PVS105	Private School	14,468	-9,493	73.3	65.2	-8.1
PVS106	Private School	26,663	6,419	86.2	84.9	-1.3
PVS107	Private School	3,658	5,088	93.9	89.2	-4.7
PVS108	Private School	23,359	6,499	88.9	90.4	1.5
PVS109	Private School	18,639	3,216	90.3	90.3	0.0
PVS110	Private School	-573	-8,780	76.3	69.1	-7.2
PVS111	Private School	16,874	-6,105	90.1	72.4	-17.7
PVS115	Private School	15,907	3,499	92.2	93.2	1.0
PVS116	Private School	30,035	1,171	90.8	88.4	-2.4
PVS117	Private School	30,486	1,003	90.9	87.6	-3.3
PBS114	Private School	9,738	3,976	97.5	100.7	3.2
PBS116	Private School	8,575	4,739	101.9	94.6	-7.3
PVS138	Private School	-2,901	10,004	67.2	64.2	-3.0

Note:

1/ The sites are located by X and Y coordinates in feet. Each X and Y value is a distance measured in feet from the airport reference point on the airport (near the Tom Bradley International Terminal). This type of coordinate system is called the Cartesian or rectangular coordinate system. This system is commonly defined by two axes at right angles (two lines that form a 90-degree angle to each other and are perpendicular) forming a plane (xy plane). The horizontal (moving left or right along the plane) axis is called the x-axis. The opposite is called the vertical (moving up or down along the plane) axis, which is called the y-axis. The point of intersection (where both the x and y axes meet) is called the origin point (depicted as 0,0 point). A unit of length is used to mark along the x and y axes, which forms a grid. To specify a particular point on a two dimensional coordinate system, you indicate the x unit first, followed by the y unit in the form (x,y), an ordered pair. The intersection of the two x-y axes creates four quadrants- northeast, southeast, southwest and northwest. In the northeast quadrant, values are (x,y), and southeast:(-x,y), southwest:(-x,-y) and northwest:(x,-y).

Source: Ricondo & Associates, Inc., 2004; Based on Landrum and Brown, 2002 Grids – Final LAX Master Plan EIS/EIR
 Prepared by: Ricondo & Associates, Inc.

Attachment 1 Original Comment Letters on the Draft EIR

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**Air Resources Board**1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.govAlan C. Lloyd, Ph.D.
Agency SecretaryArnold Schwarzenegger
Governor

September 14, 2005

Mr. Jim Ritchie
Deputy Executive Officer
1 World Way
P.O. Box 92216
Los Angeles, California 90009-2216

Dear Mr. Ritchie:

The California Air Resources Board (ARB) staff has reviewed the Los Angeles World Airports (LAWA) Draft Environmental Impact Report for South Airfield Improvement Project (Project DEIR), which assesses the potential impacts of relocating existing Runway 7R/25L at the Los Angeles International Airport (LAX) approximately 55 feet to the south and constructing a new center taxiway between the two south runways.

We understand that the runway relocation is the first of several projects designed to improve air traffic safety and security at LAX, without adding new capacity to handle more passengers or cargo. Because the Project DEIR is "tiered" from the LAX Master Plan Final EIR, it focuses on any additional impacts specific to this phase that were not already addressed in the Master Plan Final EIR.

LAWA has committed to an extensive mitigation program with a list of specific measures in the Master Plan Final EIR, as well as an open-ended commitment to continue working to develop additional measures that can be identified. We focused our review of the Project DEIR on the mitigation measures to reduce air pollution, especially diesel particulate matter, from mobile equipment during the construction effort.

For heavy diesel construction equipment, the Project DEIR relies on mitigation measures to reduce emissions by 85 percent for fine particulate (PM2.5) and 24 percent for nitrogen oxides (NOx) by 2005. These measures include use of Lubrizol fuel, particulate traps, and injection timing retard. For diesel generators, mitigation measures would achieve 83 percent control of PM2.5 and 46 percent control of NOx emissions via partial replacement with electric generators, plus use of Lubrizol and particulate traps.

We continue to be encouraged by LAWA's commitment for aggressive particulate and NOx reductions from the construction equipment and generators. Since LAWA originally developed the construction mitigation measures several years ago for the Master Plan EIR, we'd like to update you on the status of control technology available today. There has been considerable progress in designing and verifying retrofit control

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.ecb.ca.gov>.

California Environmental Protection Agency

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Mr. Jim Ritchie
September 14, 2005
Page 2

devices like diesel particulate traps and other devices that reduce NOx as well. Unfortunately, there are not yet devices available for all types of off-road diesel construction equipment.

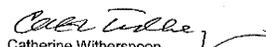
In light of technology development, LAWA may need to add other mitigation approaches to achieve the expected emission reductions from construction-related equipment. One possibility would be to use only newer diesel construction equipment meeting Tier 1 (or Tier 2/Tier 3, where available) emission standards on the project to supplement the other measures. For the generators, LAWA could assess the feasibility of requiring a higher proportion of electric units to meet the emission targets.

Based on discussions with your staff and consultants, we understand that LAWA intends to include air pollution mitigation requirements in its contracts for construction services. We are available to assist LAWA staff in developing mobile source emission control specifications for the construction contracts to ensure use of the most effective techniques to cut diesel pollution and the associated health risk.

ARB staff also reviewed the Human Health Risk Assessment chapter. We encourage LAWA to expand its documentation on the methodologies and assumptions used in the risk assessment. My staff has informally conveyed minor suggestions for improvement.

Thank you for the opportunity to review and comment on the Project DEIR. If you have questions, please contact Ms. Lynn Terry, Deputy Executive Officer, at (916) 322-2739, or have your staff contact Mr. Gary Honcoop, Manager of the Strategic Analysis and Liaison Section via e-mail at ghoncoop@arb.ca.gov or by phone at (916) 322-8474.

Sincerely,


Catherine Witherspoon
Executive Officer

cc: See next page.

SAIP-AS00001

Mr. Jim Ritchie
September 14, 2005
Page 3cc: Ms. Deborah Jordan, Director
Air Division, Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105Dr. Barry Wallerstein
Executive Officer
South Coast Air Quality Management
District
21885 Copley Drive
Diamond Bar, California 91765Ms. Karen Hoo
Los Angeles World Airports
Long Range Planning Department
7301 World Way West, Room 308
Los Angeles, California 90045-6803Mr. Scott Morgan
State Clearinghouse
Governor's Office of Planning and Research
SCH# 2004081039
P.O. Box 3044
Sacramento, California 95812-3044Ms. Lynn Terry
Deputy Executive Officer
Air Resources BoardMr. Gary Honcoop
Air Resources Board**DEPARTMENT OF TRANSPORTATION**DISTRICT 7
100 MAIN STREET, Suite 100
LOS ANGELES, CA 90012-3606
PHONE (213) 897-3747
FAX (213) 897-1337
TTY (213) 897-4937Flex your power!
Be energy efficient!

September 14, 2005

IGR/CEQA cs/050750 – NEG DEC
Los Angeles International Airport
South Airfield Improvement Project
SR-1 – LAX OC Sepulveda Blvd. Tunnel
Vic. LA-1-26.17; SCH # 2002004081039Ms. Karen Hoo
Los Angeles World Airports
7301 World Way West, Room 308
Los Angeles, California 90045

Dear Ms. Hoo:

Thank you for including the California Department of Transportation in the environmental review process for the above-mentioned project. Based on the information received, we have the following comments:

In the LAX South Airfield Improvement Project, LAWA proposes to construct a new 75-foot wide ADG parallel taxiway between Runways 7L-25R and 75-25L at LAX. Due to the proposed improvements, the section of the Sepulveda Blvd tunnel (Bridge number :53-0845, Bridge name: International Airport OC) underlying the airfield would be strengthened.

A portion of the bridge superstructure was strengthened in 1979. In 1999, the tunnel was lengthened 51.3m by adding a new extension at the north end.

In 2004, the bridge was designed for widening the strengthened portion of the International Airport OC by 16.89m. In addition, runway 25L will be upgraded to carry a new large class of aircraft (Airbus 380). Environmental clearance for this project was received in the form of a Categorical Exemption/Exclusion on June 9, 1998. LAWA plans to have a bid document for this project soon. The description of this project was located in the following section of the DEIR: Volume 1, section 2.4.2.

Any work to be performed within the State Right-of-way including on, beneath or over the State Right-of-way will need a Caltrans Encroachment Permit. A Maintenance agreement and a Cooperative Agreement may also be needed for the project.

We recommend that construction related truck trips on State highways be limited to off-peak commute periods. Transport of over-size or over-weight vehicles on State highways will need a Caltrans Transportation Permit.

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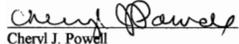
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Ms. Karen Hoo
September 14, 2005
Page Two

The contractor should agree to avoid excessive or poorly timed truck platooning (caravans of trucks) to minimize transportation related operational conflicts, minimize air quality impacts, and maximize safety concerns.

If you have any questions regarding our comments, please refer to our IGR/CEQA Record number cs/050750 and do not hesitate to contact me at (213) 897-3747.

Sincerely,



Cheryl J. Powell
IGR/CEQA Program Manager

cc: Scott Morgan, State Clearinghouse

"Caltrans improves mobility across California"

SAIP-AS00002



State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201



September 14, 2005

Los Angeles World Airports
Long Range Planning Department
Attention: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Draft Environmental Impact Report for the South Airfield Improvement Project at Los Angeles International Airport
State Clearinghouse Number 2004081039

Dear Ms. Hoo:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Environmental Impact Report (DEIR). The following statements and comments have been prepared pursuant to the Department's authority as a Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386), and pursuant to our authority as a Responsible Agency under CEQA Section 15381 over those aspects of the proposed project that come under the purview of either the California Endangered Species Act (Fish and Game Code Section 2050 *et seq.*) or the Streambed Alteration Program (Fish and Game Code Section 1600 *et seq.*).

The project consists of construction of a new 75-foot wide parallel taxiway between the two south airfield runways to meet the LAX Master Plan objectives. This requires relocation of Runway 7R-25L, along with all of its associated navigational and visual aids, and also includes utilities, lighting, signage, grading and drainage. Most of the environmental impacts associated with the South Airfield Improvement Project (SAIP) are included in the LAX Master Plan Final EIR, which was a programmatic level EIR. The DEIR for the SAIP focuses on potentially significant environmental effects at the project level that may not have been specifically addressed in the programmatic EIR.

The Department provided comments dated September 21, 2001 on the DEIS/DEIR for the Los Angeles International Airport Proposed Master Plan Improvements, and November 6, 2003 on the Supplement to the DEIS/DEIR (copies enclosed). As expressed in our previous comments, the modified HEP method that was used to assess habitat impacts is not a recognized methodology, nor is it logically sound. Therefore, the impact analysis and the determination of significance, which are both based on this, are not valid. That same methodology is used in the SAIP DEIR and continues to be a concern to the Department. The impact analysis that is based on this method undervalues the habitat loss associated with this project and has been used to support development of mitigation that is not consistent with regionally accepted mitigation measures, or with the conservation of the fish and wildlife resources of the State. Please refer to our previous letters for more details in this regard, and for suggested mitigation measures. In addition to this, although the SAIP DEIR at 4.6.4, says that the criteria for determining significance of impacts includes "...the proportion of the resource

Conserving California's Wildlife Since 1870

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Karen Hoo
September 14, 2005
Page 2

that would be affected,..." there seems to have been no consideration of the local or regional context of the habitat impacts, from either a project or cumulative perspective.

The Department requests that Los Angeles World Airports use an appropriate methodology in the determination of project impacts and provide an acceptable level of mitigation to address each significant impact. The Department finds that the project would not be *de minimis* in its effects on fish and wildlife per Section 711.4 of the California Fish and Game Code. Questions regarding this letter and further coordination on these issues should be directed to Pam Beare at pbeare@dfg.ca.gov or (858) 467-4229.

Sincerely,


for Michael J. Mulligan
Deputy Regional Manager

Enclosure
cc: State Clearinghouse

FB:pb
LAXSouthAirfieldDEIR.doc

SAIP-AS00003



State of California - The Resources Agency

GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201



November 6, 2003

Mr. Jim Ritchie
City of Los Angeles
Los Angeles World Airports
Master Plan Office
P.O. Box 92216
Los Angeles, California 90009-2216

Los Angeles International Airport (LAX) Draft Master Plan Supplement to the Draft Environmental Impact Statement/Environmental Impact Report
State Clearinghouse Number 1997061047

Dear Mr. Ritchie:

The Department of Fish and Game (Department) has reviewed the above-referenced Supplement to the Environmental Impact Statement/Environmental Impact Report (SEIS/EIR). The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386).

The Department has provided comments for the previous SEIS/EIR which considered Alternatives A, B, and C. Our letter, dated September 21, 2001, is attached.

Under Alternative D (Enhanced Safety and Security Plan), the number of runways would stay the same at four. Two existing runways would be moved, two runways would be lengthened, and all runways further separated from one another to improve operational efficiency and safety. Alternative D would encourage a long-term regional approach to serving air traffic demand in the Los Angeles basin by designing facilities at LAX to accommodate passenger and cargo activity levels equivalent to the No Action/No Project Alternative activity level, but would be designed to allow air carriers to emphasize international routes at LAX. Alternative D would enhance security by limiting access by private vehicles to the main airport infrastructure to reduce the risk to airport users. The public parking structures in the CTA would be relocated and would be replaced by new centralized passenger terminals. The existing Terminals 1 through 7 would be

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Mr. Jim Ritchie
November 6, 2003
Page 2

reconfigured. The Tom Bradley International Terminal (TBIT) would be reconfigured with the addition of a new North/South Linear Concourse. A West Satellite Concourse would be built west of the TBIT.

A new Ground Transportation Center (GTC) and an Intermodal Transportation Center (ITC) would be constructed east of Aviation Boulevard and would be the primary access points for all passenger drop-off and pick-up and vehicle parking. Passengers and employees would access the CTA via an Automated People Mover (APM) system from new GTC, ITC and consolidated Rental Car (RAC) facilities. Intersection improvements would be made to the off-airport transportation network to accommodate the shift in traffic patterns from the CTA to the GTC and ITC areas. Some cargo facilities would be modified under Alternative D, with the overall square footage being equivalent to the No Action/No Project Alternative.

Alternative D would require the acquisition of approximately 77 acres of property, the least amount of land acquisition of all the proposed build alternatives. The 340-acre, LAX Northside project described in the No Action/No Project Alternative that is currently recognized within the City's current General Plan and Zoning for 4.5 million square feet of development, would be developed for Alternative D; however, under Alternative D, the existing trip cap that exists for LAX Northside would be reduced to limit vehicle trips to a level comparable to that associated with the 2.6-million-square-foot Westchester Southside development proposed under Alternatives A, B, and C.

The Department offers the following comments and recommendations:

The precipitous decline of species associated with open grasslands within the Los Angeles Basin is well documented, with LAX likely supporting the largest population of loggerhead shrike (*Lanius ludovicianus*) in the Los Angeles Basin based on an estimate of five to eight sites remaining in the Basin and San Gabriel/San Fernando Valleys¹. The project site supports one of only three known occurrences of San Diego black tailed jackrabbit (*Lepus californicus bennettii*) within the Los Angeles Basin. Similarly, western spadefoot toad (*Scaphiopus hammondi*) is known from no more than five occurrences within the Los Angeles Basin. Federally threatened and endangered species that would be impacted by the project include the endangered El Segundo blue butterfly (*Euphilotes battoides allyni*) and Riverside fairy shrimp (*Streptocephalus woottoni*).

Although the impacts associated with Alternative D differ from other alternatives discussed in the previous EIS/EIR, the basic points of our letter addressing the inadequacies of the previous EIS/EIR apply in this case as well. Our most serious concerns remain the inadequate and inappropriate methodologies used for biologic baseline documentation, impact assessment, and mitigation calculations. For this reason we request an opportunity to meet with the applicant,

¹ Kimball Garrett, Ornithology Collections Manager, Natural History Museum of Los Angeles County, personal communication via electronic mail, November 5, 2003.

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Mr. Jim Ritchie
November 6, 2003
Page 3

the Federal Aviation Administration (FAA), and the City of Los Angeles to address our concerns prior to final certification action. The U.S. Fish and Wildlife Service should also be invited to participate.

At issue is the use of a "modified Habitat Evaluation Procedure" (re-named "Mitigation Land Evaluation Procedure - MLEP" for the SEIS/EIR). As stated in our previous letter this procedure does not accurately represent the current biologic conditions or the impacts of the project alternatives, nor does it provide for mitigation that is proportional to the impacts. The current application of the MLEP is therefore inadequate to meet the basic requirements of CEQA. In our extensive experience with land use planning and CEQA in southern California, this radical departure from accepted impact analysis methods has no precedence or justification.

The Department has determined that all of the four alternatives as currently proposed would have significant, unmitigated impacts on sensitive biological resources. Specifically, the actions will substantially reduce the habitat of sensitive wildlife species, reduce the numbers of endangered, threatened or rare species, and result in significant impacts in light of past habitat losses and the small amount of remaining habitat to support sensitive species in western Los Angeles County. Suggested mitigation measures are provided in our previous comment letter.

Questions regarding this letter and further coordination on these issues should be directed to Brad Henderson at (310) 214-9950.

Sincerely,


William E. Tippets
Environmental Program Manager

cc: Pam Emerson, California Coastal Commission
Ken Corey, U.S. Fish and Wildlife Service
Brad Henderson, Department of Fish and Game
File

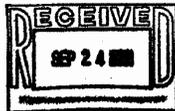
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STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
South Coast Region
9 Viewridge Avenue
San Diego, California 92123
(858) 487-4201
FAX (858) 487-4235

GRAYDAVIS, Governor

September 21, 2001



Mr. Jim Ritchie
City of Los Angeles
Los Angeles World Airports
Master Plan Office
P.O. Box 92216
Los Angeles, California 90009-2216

Draft Environmental Impact Statement / Environmental Impact Report for the Los Angeles International Airport Proposed Master Plan Improvements, Los Angeles, Los Angeles County, California
(SCR 1997061047)

Dear Mr. Ritchie:

The Department of Fish and Game (Department) has reviewed the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) dated January 2001, for the Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Los Angeles, Los Angeles County, California. The Department is identified as a Trustee Agency pursuant to California Environmental Quality Act (CEQA) Section 15386 and is responsible for the conservation, protection and management of the state's biological resources.

The proposed project consists of three alternative expansion scenarios for LAX as well as a "no project" alternative. Under Alternative A, a new runway would be added to the north airfield complex, and two existing runways would be lengthened; all runways would be further separated from one another. This alternative differs from the other build options because it would not develop the Manchester Square property acquired as part of the LAX noise mitigation program. This alternative would fully meet the projected demand for aviation services at LAX by accommodating 97.9 million passengers and 4.2 million tons of cargo in 2015. As with each of the three build alternatives (A, B and C), a new passenger terminal complex would be constructed at the west end of the airport on Pershing Drive connected to the I-105 and I-405 freeways by a ring road encircling the airport. An LAX Expressway would be built along side the I-405 and would provide direct freeway access to the airport via a connection to the ring road. New midfield concourses would be connected to the west terminal and the existing central terminal by an Automated People Mover. New air cargo facilities would be built on newly acquired land east of the airport. The LAX Northside project would be reconfigured into a

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smaller, 2.65 million square-foot mixed use development and would be renamed the Westchester Southside project. The Continental City site would be used for air cargo facilities.

Under Alternative B, a new runway would be added to the south airfield complex, and two existing runways would be lengthened; all runways would be further separated from one another. This alternative would fully meet the projected demand for aviation services at LAX by accommodating 97.9 million passengers and 4.2 million tons of cargo in 2015. As with each of the three build alternatives (A, B and C), a new passenger terminal complex would be constructed at the west end of the airport on Pershing Drive connected to the I-105 and I-405 freeways by a ring road encircling the airport. An LAX Expressway would be built along side the I-405 and would provide direct freeway access to the airport via the MTA railroad right-of-way adjacent to Florence Avenue, and a connection to the ring road. New midfield concourses would be connected to the west terminal and the existing central terminal by an Automated People Mover. New air cargo facilities would be built on newly acquired land east of the airport. Again, the LAX Northside project would be reconfigured into a smaller, 2.65 million square-foot mixed use development and would be renamed the Westchester Southside project. The Continental City site would be used for air cargo facilities.

Under Alternative C, the number of runways would stay the same at four. Two existing runways would be moved, one runway widened, three runways lengthened and all runways further separated from one another to improve operational efficiency. This alternative would not fully meet the projected demand for aviation services at LAX. It would fully accommodate the cargo demand of 4.2 million tons in 2015. However, it would accommodate only 89.6 million passengers (a shortfall of 8.3 million passengers) in 2015. As with the other build alternatives, a new passenger terminal complex would be constructed at the west end of the airport on Pershing Drive connected to the I-105 and I-405 freeways by a ring road encircling the airport. An LAX Expressway would be built along side the I-405 and would provide direct freeway access to the airport via a connection to the ring road. New midfield concourses would be connected to the west terminal and the existing central terminal by an Automated People Mover. New air cargo facilities would be built on newly acquired land east of the airport. The LAX Northside project would be reconfigured into a smaller, 2.65-million-square-foot mixed use development and would be renamed the Westchester Southside project. The Continental City site would be used for air cargo facilities. LAWA staff has chosen this option as its preferred alternative. (The FAA has not yet identified its preferred alternative and, in accordance with its regulations, the FAA will identify a preferred alternative in the Final EIS/EIR.)

According to the DEIS/EIR, the proposed project will impact non-native grasslands, disturbed areas, valley needlegrass grasslands, southern fescue, southern dune scrub, and vernal ponded areas. Federally threatened and endangered species that will or have potential to be impacted by the project include the endangered El Segundo blue butterfly (*Euphilotes battoides*

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alyni) and Riverside fairy shrimp (*Streptocephalus woottoni*). Sensitive species, including several California Species of Special Concern (CSC) that would potentially be impacted by the proposed project include the loggerhead shrike (*Leiurus ludovicianus* - CSC), burrowing owl (*Athene cunicularia* - CSC), western spadefoot toad (*Scaphiopus hammondi* - CSC), silvery legless lizard (*Amniella pulchra* - CSC), San Diego horned lizard (*Phrynosoma coronatum blainvilliei* - CSC), San Diego black tailed jackrabbit (*Lepus californicus bennettii* - CSC), Trask's mail (*Helminthoglypta traskii*), Henne's eucosman moth (*Eucosa hennei*), Ford's sand dune moth (*Psammobrya fordii*), and Globiose dune beetle (*Coelus globosus*). Sensitive plant species include Lewis' evening primrose (*Camissonia lewisii*), duneflower or sand foot (*Phollama arenarium*), and California spinnelower (*Muscroca californica*).

The Department offers the following comments concerning this project:

Habitat Evaluation Procedures Methodology

The DEIS/EIR relies on the Habitat Evaluation Procedures (HEP) methodology to define biological impacts and develop biological mitigation measures. For the reasons described below, the Department does not concur with the manner by which the HEP was applied; and, therefore we do not believe that the mitigation measures are acceptable.

The HEP methodology was first developed in the 1970's by the USFWS for the evaluation of impacts to individual species and their habitats. The HEP methodology is designed to quantify the habitat quality of given areas for a particular species. The HEP technique can be a useful tool for impact analysis for a target species by providing a consistent method of assessing the adverse or beneficial effects of a project and its alternatives. Using the *habitat requirements of the target species* as a basis for analysis, the importance of the study area's environmental variables to the target species are analyzed and used to generate a habitat suitability index (HSI), referred to as Habitat Value in the DEIS/EIR. A Habitat Value may range from 0.0-1.0, depending on the value to the target species. Multiplying the HSI or Habitat Value by the acreage of a study area yields habitat units (HU), a measure of a site's acreage and value for a particular species. For example, if a HEP analysis is conducted for two separate target species (Species "A" and Species "B") within an area supporting optimal habitat for Species A but only marginal habitat for Species B, the HSI values and HU values would be much higher for Species A than Species B. The HEP analysis presented in the DEIS/EIR does not follow this accepted methodology, and is flawed in the following fundamental ways:

1. The DEIS/EIR's HEP is developed based on idealized vernal pool/native grassland landscape characteristics that are not demonstrated as important features for any particular species of interest. The two reference sites chosen as idealized habitats for the analysis of the LAX project are the Santa Rosa Plateau and the Carrizo Plain Natural

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Area, both inland areas that support some similar types of habitat (grassland, forb, and vernal pool) but their similarity to the historical coastal habitats of the study area is questionable. In fact, they are very dissimilar to the existing condition of the study area, and are not at all analogous to southern foredune and southern dune scrub. Rather than focusing on low high quality habitats associated with the reference sites might help define the specific habitat requirements of the target species found at LAX, the DEIS/EIR develops a generalized HEP that largely ignores the requirements of the target species. For instance, the analysis quantifies such factors as vernal pool flora, native grasses over 10%, and contiguous native habitat over 40 acres, which have very different relevance to species as diverse as the loggerhead shrike, Riverside fairy shrimp, black-tailed jackrabbit, or Lewis' evening primrose.

2. The HEP analysis arbitrarily assigns values to habitat components without any justification. For example, the category "under regulatory conservation" which measures the strength of environmental land-use laws for a given habitat type and fails to evaluate the quality of the habitat itself, is given twice the importance (0.10) as real habitat components such as "summer desiccation" which is critical to the survival of Riverside fairy shrimp. On the other hand, "summer desiccation" would not necessarily be an equally important element in consideration of the habitat requirements for the loggerhead shrike, burrowing owl, silvery legless lizard, etc.
3. The DEIS/EIR inappropriately assigns Habitat Values to all of the study area's different vegetation communities based on one vegetation community/landscape (the idealized reference sites). The artificially constructed habitat value measurements for vernal pools/native grasslands are applied to completely unrelated habitats using the same inappropriate categories. Southern foredune, for example, is downgraded because it does not contain "areas with periods of inundation of equal to or greater than 30 days", a habitat value that does not apply to the sandy substrates of southern foredune habitats. The southern foredune habitat on the El Segundo dunes, widely acknowledged as some of the highest quality and most diverse examples of its type in southern California, only rates a 0.45 value in the analysis because of this misapplication of specific habitat components to unrelated and structurally very different habitats. As a result, the entire project site is given artificially low Habitat Values because many areas do not exhibit "mound-depression microrelief", "native soils with slope less than 10%", "sensitive/listed vernal pool-associated species (reproducing)", etc. that are comparable to a vernal pool landscape. Many of the habitat components listed in Table 4.10-1 are insignificant in the context of assessing the importance of the site's vegetation resources.
4. The HEP used in the DEIS/EIR inappropriately "banks" habitat units of urbanized landscape areas that are subsequently used to downgrade the impacts of the proposed

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project on unrelated habitats. For example, the DEIS/EIR (Page 4-646) considers future ornamental landscaping within the facility (arbitrarily assigned a value of 2.68 habitat units for 53.6 acres of landscaping) to offset the loss of non-native grasslands and disturbed areas supporting sensitive species.

5. The DEIS/EIR proposes that the restoration of disturbed dune scrub/foredune (Habitat Value of 0.35 according to DEIS/EIR) to southern foredune (Habitat Value of 0.45 according to DEIS/EIR) would result in a mitigation credit value of 0.8 per acre, a higher value than southern foredune or any other existing habitat within the study area. Using the DEIS/EIR's methodology, a change in Habitat Value from 0.35 to 0.45 is a difference of 0.1, not 0.8. Using the DEIS/EIR's methodology and Table 4.10-1, the restored southern foredune community would "ideally" resemble grassland/vernal pool habitats of Santa Rosa Plateau and Carrizo Plain, an undesirable result.
6. The mitigation ratio of 1:1 (as measured in "Habitat Units" in the DEIS/EIR) results in inadequate compensation for the loss of habitats occupied by sensitive species including the loggerhead shrike, San Diego black-tailed jackrabbit, and western spadefoot toad. In the following discussion we will examine the example of the non-native grassland and disturbed/bare ground communities under 2015 Alternative "A". The entire study area contains approximately 704.9 acres of non-native grassland (designated as non-native grassland/ruderal in the DEIS/EIR). Approximately 363.4 acres would be impacted under Alternative A. Using the DEIS/EIR's HEP analysis, this 363.4 acres is equivalent to 54.47 Habitat Units. The DEIS/EIR then combines the impacts for disturbed/bare ground (94.8 acres or 9.48 Habitat Units) with the grassland habitat units (54.47+9.48=63.95 Habitat Units). An arbitrarily assigned credit for future landscaped areas is then subtracted from the total impacts to yield the total Habitat Units of impact (63.95 Habitat Units-2.68 Habitat Units (or 53.6 acres of landscaping) = 61.27 Habitat Units. The proposed mitigation plan consists of three components: (1) enhancement of 16.9 acres of non-native grassland to needlegrass grassland; (2) restoration of 18.06 acres of existing roadways within the El Segundo blue butterfly preserve to southern foredune; and (3) enhancement of 74.6 acres of disturbed dune scrub/foredune to southern foredune. Of this total, only 16.9 acres would provide comparable mitigation (enhancement of non-native grassland to native grassland) for losses of 363.4 acres of grassland and 94.8 acres of disturbed habitat supporting sensitive species.
7. Most of the habitats present on LAX are artificially assigned low values, which then are used as the basis for developing mitigation measures. After creating these artificial habitat units, the DEIS/EIR then proposes that units are fully exchangeable, such that impacts to one habitat type, for instance grasslands, could be mitigated through enhancement of different habitat types supporting different species, such as southern

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foredune. By implying this arbitrary "exchange system" of mitigation, the DEIS/EIR has failed to establish a credible basis for the nexus and proportionality of the mitigation process.

8. In summary, we believe that the modified HEP method used for this analysis is flawed and misapplied, and is inappropriate for use in defining biological impacts and developing acceptable mitigation measures. The following discussion of impacts to habitats and sensitive species omits any references to habitat values as defined or used in the DEIS/EIR.

Federally-Listed Species

9. We understand that the USFWS currently in formal consultation with the Federal Aviation Administration regarding proposed impacts to occupied habitat of the Riverside fairy shrimp.

Restoration of vernal pools sufficient to support Riverside fairy shrimp is experimental and often unsuccessful. Therefore, mitigation ratios typically vary from 3:1 to 5:1 for impacts to vernal pools depending on the quality of the pools to be disturbed. The "ephemerally wetted areas" on LAX are not high quality vernal pools, however, they do support two species of fairy shrimp and the western spadefoot toad, which require vernal pools for reproduction. Therefore, we recommend that the mitigation for impacts to the pools at LAX be 3:1, at the low end of the typical mitigation range. The surface area of the pools to be impacted on LAX is 1.3 acres, therefore the surface area of the mitigation ponds should be 3.9 acres.

Successful creation of functional vernal pool habitat must include provisions for the creation and management of surrounding upland habitats. These upland habitats serve both as buffers and watersheds for created vernal pools. The ratio of upland watershed to pool surface area on natural and successfully created pools is at least 10:1 and often 15:1. Therefore the amount of land minimally required to support the created pools will be 39 acres. We have recommended splitting this acreage between two or more sites, to increase the chances of successfully restoring the specific conditions which the fairy shrimp and western spadefoot toad require to breed.

Please review the Vernal Pool Construction Monitoring Protocol and Habitat Replacement Evaluation produced by the USFWS located at: <http://pacific.fws.gov/ea/vpfinal.html>

10. Potential impacts to the El Segundo Blue butterfly include 320 square feet of occupied

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habitat under Alternative A. Considering the rarity of the species and its habitat, direct, permanent impacts to southern fordsone and dune scrub communities containing the butterfly should be mitigated at a 5:1 ratio. This would result in the creation of 0.05 acres of suitable habitat. We recommend that this restoration occur in currently unoccupied portions of the dune preserve, such as subites 45 or 50, or in the 104 acres north of the existing preserve. Impacts to the high density butterfly population in subite 9 from the proposed ring road and World Way West realignment have not been sufficiently investigated, as described below in the light emissions discussion. We recommend further disclosure of the engineering plans being considered for the World Way West interchange area, in order to fully analyze the potential impacts associated with this portion of the proposed project.

Other Impacts

- 11. The ring road which is proposed to replace Pershing Drive and circle the expanded airport presents a number of potential impacts to wildlife and habitats that have not been analyzed or mitigated. The DEIS/EIR states that a number of rare vertebrate species, such as the black-tailed jackrabbit, San Diego horned lizard, and silvery legless lizard occur, or are proposed to be reintroduced to the dunes. However, no analysis is presented as to the effects of increased speeds and traffic volume on rates of road kill for these species. These populations of sensitive species are already reduced due to the limited extent of habitat available, and therefore significant rises in mortality rates due to increased road kill may render these populations unsustainable. New technologies for deterring road crossings by small vertebrates are currently available (<http://www.fhwa.dot.gov/environment/wildlifecrossings/index.htm>). These technologies should be incorporated into the designs of the ring road, so as to prevent increases in road kill of sensitive species.
- 12. Light emissions are known to disrupt the circadian rhythms of birds, butterflies, small mammals, and other species. This is especially true of nocturnal species, such as the numerous rare, endemic moth species restricted to the dunes. Light emissions along Pershing Drive are currently very low, with only a few street lights present adjacent to the preserve. However, as noted in the DEIS/EIR, several streetlights at the westerly end of World Way West light a wide area of the dunes preserve. The foot-candles emitted by these lights were not measured or analyzed in the DEIS/EIR. The number of additional streetlights proposed for the ring road and the additional infrastructure on the airport are also not disclosed, but the DEIS/EIR estimates that the light reaching the dunes preserve will increase to 0.60 foot-candles. How this figure was reached is not described. We recommend that the Final DEIS/EIR include a more detailed analysis of the biological effects of night lighting. Mitigation measures to offset potentially significant impacts

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should also be proposed.

- 13. The effects of increased noise levels on sensitive species and habitats are not adequately analyzed in the DEIS/EIR. Research has shown that chronic noise levels can be disruptive to avian species, amphibians, and rodents.
- 14. The DEIS/EIR may fail to disclose and analyze proposed impacts to the northern 104 acres of the dunes. An approved EIR, circa 1983, was certified by the City of Los Angeles for the LAX Northside Project. The development of this area is considered part of the "no project alternative", but project changes since 1983 are not discussed in detail. The LAX Northside project has been re-named and reconfigured as the Westchester South project. However, the DEIS/EIR appears to present potential new impacts for project components not previously analyzed. Several figures in the DEIS/EIR Biological Assessment Technical Report depict a golf course, resort hotel, light industrial, and commercial/mixed use in the northern area of the dunes. We recommend that any reasonably foreseeable direct and/or indirect physical changes associated with the project should be included as part of the project and analyzed for potentially significant environmental effects and appropriate mitigation measures.

Mitigation

- 15. Because of the regional significance of declining species and habitats found within the Master Plan boundaries, we recommend that all biological mitigation areas associated with the project, both within and outside of the current preserve area, are protected and managed in perpetuity. Department staff are available to work with LAWA in the design and implementation of maintenance and monitoring plans to meet long-term biological goals.
- 16. Long-term management of the dunes is essential if the area is to provide mitigation opportunities for project impacts. Currently, portions of the dune preserve are in a state of degradation due to a general lack of management. In the last several years the dunes have been allowed to deteriorate through invasion by exotic plant species, and contain a highly altered vertebrate community through the abundance of red fox. We recommend the creation of a non-wasting endowment to support implementation of an approved management plan. Management of the dunes should be accomplished through an independent management organization with extensive expertise in managing sensitive habitats and endangered species.
- 17. The DEIS/EIR contains language in virtually all of the biological mitigation measures limiting monitoring and maintenance to "not more than five years." The accepted

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mitigation monitoring and maintenance period pursuant to CEQA is typically a period of not less than five years. In some cases five years or less is sufficient to meet performance standards; in other cases it is not. By limiting the maintenance and monitoring period to less than five years regardless of the success of the mitigation site, the DEIS/EIR implies that if performance criteria are not met within five years, no further maintenance or monitoring need be performed. If a mitigation site fails to meet acceptable performance standards, the significant impacts of the project would not be reduced below a level of significance. For these reasons, we recommend that all mitigation areas meet acceptable performance criteria, before LAWA is relieved of mitigation responsibility. On the other hand, it is often appropriate to cease maintenance and monitoring responsibilities if a mitigation site has clearly met acceptable performance standards prior to the end of five years.

- 18. The Department is concerned with the loss of grasslands in southern California, including both native and non-native grasslands. Grasslands and other open areas on the site provide foraging habitat for raptors, and support sensitive species including burrowing owl, loggerhead shrike, western spadefoot toad, and San Diego black-tailed jackrabbit. The mitigation proposed in the DEIS/EIR is unacceptable. The Department recommends that proposed impacts to annual grassland be mitigated in-kind at a ratio of 0.5:1 to compensate for the loss of raptor foraging habitat and sensitive species habitat. Because LAX is one of the last expanses of grassland in the area, nearby mitigation sites with sufficient acreage may not exist. If sufficient acreage is not available on the site or nearby, an off-site grassland preserve should be considered. Primary consideration should be given to areas supporting or capable of supporting sensitive species impacted by the project. The establishment of an off-site grassland preserve would not necessarily mitigate for losses of habitat on a local level, but would at least provide compensatory habitat within the region.
- 19. The success criteria outlined in the mitigation measure for impacts to Lewis' evening primrose (MM-BC-2) are not acceptable. The acreage currently occupied by the species is 2.5 acres according to the DEIS/EIR. The estimate of 300 individuals present likely only represents an estimate of flowering individuals present at a given time. This species, like most other annual plants, is likely very dynamic in both the spatial distribution and numbers of observable (flowering) individuals present from year to year. Due to various dormancy mechanisms, annuals of xeric habitats rarely exhaust the entire seedbank in any given year. Observations of flowering individuals of annual plant species do not necessarily provide a census of the entire population (i.e., the seedbank). To better quantify the loss and appropriate mitigation measures, the acreage of occupied habitat must be taken into account along with the estimated number of flowering plants observed. We recommend that MM-BC-2 is revised to establish an area of no less than 2.5 acres of

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currently unoccupied but otherwise suitable habitat to disperse seed. The success criteria should not only include the "establishment" (germination?) of 300 seeds in the first year after dispersal, but should also include true success criteria, including measures of seed set, recruitment, and spatial distribution over the mitigation area for the entire five-year monitoring/maintenance period.

- 20. We recommend that the planting of mature trees associated with MM-BC-3, as well as all landscaping associated with future improvements, avoid establishing non-native trees in areas where the presence of the trees could impact native dune or grassland communities. Impacts associated with non-native trees include the invasive tendencies of some plant materials, alterations of native arthropod communities due to irrigation and other changes, and creation of habitat for aggressive or non-native bird species. The Department recommends the use of locally native plants to the greatest extent feasible in the landscape areas. The applicant should not plant, seed or otherwise introduce invasive exotic plant species to the landscaped areas adjacent to or near mitigation or open space areas. Exotic plant species not to be used include those species listed on Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999." This list includes such species as: pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capeweed, tree of heaven, periwinkle, sweet alyssum, English ivy, and Spanish broom. A copy of the complete list can be obtained by contacting the California Exotic Pest Plant Council at 32912 Calle del Tesoro, San Juan Capistrano, CA 92675-4427, or by accessing their web site at <http://www.calceppc.org>.
- 21. We recommend that the spadefoot toad mitigation (MM-BC-4, in part) be coordinated with the relocation of vernal pool resources and Riverside fairy shrimp previously mentioned. All buffer areas and the watersheds of vernal pools (i.e., mitigation areas) should be managed in perpetuity for both Riverside fairy shrimp and spadefoot toad.
- 22. The DEIS/EIR proposes to transport black-tailed jackrabbits to the dune preserve area (MM-BC-4, in part), and monitor their status for three years. Currently, jackrabbits inhabit a significant portion of the airfield west of the southern runway. Though the acreage occupied is not disclosed in the DEIS/EIR, it is likely greater than 100 acres. Within the habitat restoration area only 41 acres of grassland and dune scrub habitats are present. These two habitats are the primary habitats suitable for jackrabbits on the dunes. No analysis is presented to suggest that 41 acres of habitat is sufficient to establish a self sustaining population of jackrabbits. A much larger extent of these two habitats (92 acres) is present on the dunes to the north of the habitat restoration area. We recommend incorporating the northern dunes into the dune preserve and establishing a jackrabbit population on the combined acreage. As transplantation efforts are experimental and

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prone to failure, we also recommend the selection of a second site to establish a new population. Potential sites may include those finally selected as suitable for Riverside fairy shrimp habitat creation. A red fox control program will be essential to maintaining jackrabbits on the dunes or potentially in off-site mitigation areas.

23. The DEIS/EIR states that currently three pairs of loggerhead shrikes inhabit the dunes west of Pershing Drive. From the distribution of observation points mapped on figure 4.10-5, it appears one to two other pairs use the western airfield east of Pershing Drive for nesting. Therefore the proposed project will result in a loss of habitat, and potentially the loss of two out of five pairs of shrikes on the property. Shrikes maintain large territories, and though the enhancement of the dunes preserve may increase the foraging value for the resident pairs, there is no evidence to show that an enhanced dune area will support two more pairs over what it supports currently. It is doubtful that the mitigation as proposed would reduce the impact below a level of significance. We recommend that the acquisition or restoration of occupied grassland habitat as previously mentioned as an effective mitigation measure.
24. As previously mentioned, the proposed mitigation measures for loss of habitat for the three build alternatives (MM-BC-5, MM-BC-6, and MM-BC-7) should be revised. The Department recommends that grassland mitigation should be provided at a ratio of at least 0.5 to 1 for losses of grassland habitats. The DEIS/EIR's mitigation measures propose container stock planting densities for dominant species comprising valley needlegrass grassland, provided in plants/habitat unit. Converting these densities to plants per acre, and on-center spacing (assuming an even distribution of the container stock), the proposed spacings include: nodding needlegrass (5.18 feet on-center), white everlasting (31.7 feet on-center), doveweed (31.7 feet on-center), California croton (29.9 feet on-center), and dune primrose (23.97 feet on-center). These proposed spacings would result in an extremely low amount of cover, not at all resembling a natural grassland or grassland/forb community. Furthermore, the species diversity as suggested in the DEIS/EIR would result in a target community lacking the diversity of a natural community. We recommend an increased container stock density as well as the inclusion of many more species. Both container stock and seed should be considered for this effort.

Most importantly, the proposed success criteria of "attainment of at least a 10 percent cover of native cover" is not acceptable. The Department and many local agencies have adopted a threshold of ten percent cover by *native grass species* as a determining factor in the classification and mapping of a given area as a native grassland type. An upland site dominated by herbaceous species with only ten percent cover of grasses may represent a native grassland/forb community, or more commonly may represent an extremely degraded native grassland community with a high percentage of non-native, disturbance-

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- adapted species. The Department does not accept ten percent total native cover as an acceptable performance criteria for natural communities that achieve up to 75%-100% cover during the spring season. Therefore, the Department recommends: (1) examination of high quality needlegrass/forb habitat within the Master Plan boundaries for use as a reference site; and (2) consideration of published data documenting historical plant species and communities of the area. The success criteria for this mitigation measure should be the attainment of replacement habitat comparable to the existing and pre-disturbance condition of the reference site, rather than a goal of ten percent native cover.
25. The revegetation of needlegrass grassland is extremely difficult and has been subject to a high failure rate due primarily to competition by non-native plant species. Revegetation of native grassland is largely in the experimental phase, with many land managers and others currently exploring ways to increase the success of native grassland restoration. Site selection, cryptobiotic crusts, soil types, fire, soil and vegetation salvage, associated species, weed competition, and other factors interact to influence the success or failure of native grassland restoration. While the site may have historically supported more forbs than grasses, similar revegetation methods and constraints would apply. Based on past experience, the Department recommends an extended site preparation and installation period for revegetation of this plant community. In areas supporting non-native species, we recommend at least two to three years of weed control prior to the installation of native grass species, in addition to the five-year maintenance/monitoring period. In fact, some research has shown that five years may be only marginally sufficient for grassland revegetation sites to achieve significant native growth (see <http://www.basinrestserve.org/GrassRestore/GrassRest2.html>). We recommend that the project use salvaged materials from the project site, including soils, cryptobiotic crusts, native grasses, and geophytes, if these are available.
26. Needlegrass grassland is designated as a *Rare Natural Community (S.1.1)* that has suffered a decline of well over 99 percent in southern California. Because of the rarity of this community, the Department recommends a higher mitigation ratio (2:1 to 3:1) for impacts to needlegrass grassland (discussed in MM-BC-8, MM-BC-9, and MM-BC-10). Likewise, previous comments regarding specific revegetation methodology also apply to MM-BC-8.
27. The DEIS/EIR suggests that "Any combination of habitat replacement completed by LAWA or its designee drawn from the above-listed opportunities that equals at least
- Mattoni, R., and T. Longcore. 1997. The Los Angeles Coastal Prairie, a Vanished Community. *Crossroads* 26(2): 71-102

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61.27 habitat units shall be considered sufficient replacement for the loss of habitat resulting from implementation of Alternative A." As previously mentioned, the Department do not support this concept for this or any of the "build" alternatives.

We appreciate the opportunity to comment on the DEIS/EIR for the Los Angeles International Airport Proposed Master Plan Improvements project. The Department has determined that the project as currently proposed would have significant, unmitigated impacts on sensitive biological resources. Specifically, the actions will substantially reduce the habitat of sensitive wildlife species, reduce the numbers of endangered, threatened or rare species, and result in impacts that are cumulatively significant in light of past habitat losses and the small amount of remaining habitat to support sensitive species in western Los Angeles County. We request that the FAA and the City of Los Angeles not take final certification action until the Department has had the opportunity to meet with the applicant to address the concerns identified in this letter. If you have any questions or comments please call Brad Henderson at (310) 214-9950.

Sincerely,

William E. Tippets

William E. Tippets
Environmental Program Manager

cc: Department of Fish and Game
File

California Coastal Commission
Pam Emerson

U.S. Fish and Wildlife Service
Carlsbad
Anne Hoecker
Kevin Clark

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Arnold
Schwarzenegger
Governor

September 15, 2005

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Sean Walsh
Director

Karen Hoo
City of Los Angeles
Los Angeles World Airports, Long Range Planning
7301 World Way West, Room 308
Los Angeles, CA 90045

Subject: South Airfield Improvement Project
SCH#: 2004081039

Dear Karen Hoo:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on September 14, 2005, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

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Document Details Report
State Clearinghouse Data Base

SCH# 2004081039
Project Title South Airfield Improvement Project
Lead Agency Los Angeles, City of

Type EIR Draft EIR

Description The City of Los Angeles proposes to construct a new 75-foot wide Airplane Design Group V center taxiway between Runways 7L-25R and 7R-25L at LAX in order to minimize the potential for runway incursions. This project is identified as the first Phase 1 improvement project under Alternative D of the LAX Master Plan EIS/EIR. The project site is located on LAX property near the Airport's southern boundary. The site is currently paved and in active airfield use for commercial service aircraft operations.

Lead Agency Contact

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Agency City of Los Angeles
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City 7301 World Way West, Room 308 State CA Zip 90045
Los Angeles

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Sepulveda Boulevard Tunnel
Parcel No.
Township Range Section Base

Proximity to:

Highways
Airports LAX
Railways
Waterways
Schools
Land Use The site is currently paved, in active airfield use for commercial service aircraft operations and is near the Airport's southern boundary in the LAX area.

Project Issues Air Quality; Noise; Water Quality; Aesthetic/Visual; Archaeologic-Historic; Drainage/Absorption; Economics/Jobs; Geologic/Seismic; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services; California Highway Patrol; Caltrans, District 7; Caltrans, Division of Aeronautics; Caltrans, Division of Transportation Planning; Native American Heritage Commission; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 7; Air Resources Board, Airport Projects

Date Received 08/01/2005 Start of Review 08/01/2005 End of Review 09/14/2005

SAIP-AS00004

Note: Blanks in data fields result from insufficient information provided by lead agency.



STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Arnold Schwarzenegger
Governor

Sean Walsh
Director

September 15, 2005

Karen Hoo
City of Los Angeles
Los Angeles World Airports, Long Range Planning
7301 World Way West, Room 308
Los Angeles, CA 90045

Subject: South Airfield Improvement Project
SCH#: 2004081039

Dear Karen Hoo:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on September 14, 2005. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2004081039) when contacting this office.

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

SAIP-AS00005

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PAGE 02

State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

September 14, 2005



Los Angeles World Airports
Long Range Planning Department
Attention: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Draft Environmental Impact Report for the South Airfield Improvement Project at Los Angeles International Airport
State Clearinghouse Number 2004081039

Dear Ms. Hoo:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Environmental Impact Report (DEIR). The following statements and comments have been prepared pursuant to the Department's authority as a Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Section 15386), and pursuant to our authority as a Responsible Agency under CEQA Section 15381 over those aspects of the proposed project that come under the purview of either the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) or the Streambed Alteration Program (Fish and Game Code Section 1600 et seq.).

The project consists of construction of a new 75-foot wide parallel taxiway between the two south airfield runways to meet the LAX Master Plan objectives. This requires relocation of Runway 7R-25L, along with all of its associated navigational and visual aids, and also includes utilities, lighting, signage, grading and drainage. Most of the environmental impacts associated with the South Airfield Improvement Project (SAIP) are included in the LAX Master Plan Final EIR, which was a programmatic level EIR. The DEIR for the SAIP focuses on potentially significant environmental effects at the project level that may not have been specifically addressed in the programmatic EIR.

The Department provided comments dated September 21, 2001 on the DEIS/DEIR for the Los Angeles International Airport Proposed Master Plan Improvements, and November 6, 2003 on the Supplement to the DEIS/DEIR (copies enclosed). As expressed in our previous comments, the modified HEP method that was used to assess habitat impacts is not a recognized methodology, nor is it logically sound. Therefore, the impact analysis and the determination of significance, which are both based on this, are not valid. That same methodology is used in the SAIP DEIR and continues to be a concern to the Department. The impact analysis that is based on this method undervalues the habitat loss associated with this project and has been used to support development of mitigation that is not consistent with regionally accepted mitigation measures, or with the conservation of the fish and wildlife resources of the State. Please refer to our previous letters for more details in this regard, and for suggested mitigation measures. In addition to this, although the SAIP DEIR at 4.6.4, says that the criteria for determining significance of impacts includes "...the proportion of the resource

Conserving California's Wildlife Since 1870

SAIP-AS00005

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Karen Hoo
September 14, 2005
Page 2

that would be affected, ..." there seems to have been no consideration of the local or regional context of the habitat impacts, from either a project or cumulative perspective.

The Department requests that Los Angeles World Airports use an appropriate methodology in the determination of project impacts and provide an acceptable level of mitigation to address each significant impact. The Department finds that the project would not be *de minimis* in its effects on fish and wildlife per Section 711.4 of the California Fish and Game Code. Questions regarding this letter and further coordination on these issues should be directed to Pam Beare at pbeare@dfg.ca.gov or (858) 467-4229.

Sincerely,

for Michael J. Mulligan
Deputy Regional Manager

Enclosure
cc: State Clearinghouse

PS:pb
LAXSouthAirfieldDEIR.doc

SAIP-AS00005



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

FAXED: SEPTEMBER 15, 2005

September 15, 2005

Ms. Karen Hoo
Los Angeles World Airports
Long Range Planning Department
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

**Project-Level Tiered Draft Environmental Impact Report for
South Airfield Improvement Project, Los Angeles International Airport (LAX)
Proposed LAX Master Plan project
(August 2005)**

Dear Ms. Hoo:

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated in the Final Project Environmental Impact Report.

The SCAQMD needed an additional day to provide comments because the underlying air quality related spreadsheets were not provided with the draft document, which delayed staff review. For all future projects, please provide all technical support documents and spreadsheets (electronic versions) along with the draft CEQA documents.

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD with written responses to all comments contained herein prior to the certification of the Final Project Environmental Impact Report. The SCAQMD would be happy to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Charles Blankson, Ph.D., Air Quality Specialist – CEQA Section, at (909) 396-3304 if you have any questions regarding these comments.

Sincerely

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

Attachment
SS:CB
LAC050802-09 Control Number

SAIP-AR00001

Ms. Karen Hoo

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September 15, 2005

**South Airfield Improvement Project Environmental
Impact Report (SAIPEIR)
(August 2005)**

- MM-AQ-3:** On page IV-113 of the SAIPEIR, the lead agency identifies LAX Master Plan commitments and mitigation measures applicable to the SAIP. Included as part of the discussion is MM-AQ-3: Transportation-Related Measures. The SCAQMD requests that MM-AQ-3 be revised as follows:

 - **Developing Requiring** program to minimize the use of conventional-fueled fleet vehicles on a permanent basis to reduce air emissions from vehicles at the airport (LAX Master Plan Final EIS/EIR, page 4-727).
 - **Promoting Requiring** commercial vehicles/trucks/vans/construction worker shuttles using terminal areas (LAX and regional intermodal) to install the cleanest engines available including alternative-fueled and SULEV/ZEV engines to reduce vehicle air emissions (LAX Master Plan Final EIS/EIR, page 4-727).
 - **Promoting Requiring** "best-engine" technology (SULEV/ZEV) for rental cars using on-airport RAC facilities to reduce vehicle air emissions.
- Construction Mitigation Measure:** In order to further reduce construction emissions, SCAQMD staff recommends that the lead agency revise the following recommended measure to increase effectiveness:

 - In Table 4.3-9, the lead agency proposes to prohibit construction vehicles idling in excess of ten minutes. This measure should be revised to prohibit construction (heavy-duty) vehicles from idling more than five minutes, to be consistent with state law.
- Control Efficiencies:** In Table 4.3-8 on page IV-114 of the SAIPEIR and the mitigation measure spreadsheet in the construction emissions workbook in the file Construction Emissions_final(PM2.5).xls (provided separately from the SAIPEIR), the lead agency applies a control efficiency of 24 percent for NO_x and 85 percent for PM10. Emulsified diesel fuels for mobile sources, e.g., Lubrizol, only have interim verification status with a NO_x control efficiency of 14 percent and a PM10 control efficiency of 63 percent. Even assuming a control efficiency of five percent for keeping engines tuned up, the NO_x and PM10 control efficiency for off-road mobile sources is too high. Please explain or correct this apparent discrepancy.
- Additional Mitigation Measures:** Although the emission reduction capability of the following mitigation measures may not be easily quantified, the lead agency should consider implementing them wherever feasible.

 - To reroute truck traffic to avoid residential areas or schools.

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Ms. Karen Hoo

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September 15, 2005

- Trucks hauling dirt, sand, gravel or soil are to be covered or shall maintain at least two feet of freeboard in accordance with the requirements of Section 23114 of the California vehicle Code.
 - To sweep nearby or adjacent streets at the end of the day if visible soil material is carried over from the construction site.
 - To provide temporary wind fencing around the construction sites to prevent transport of dust to the surrounding areas during grading or site clearing.
 - To install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving construction site.
 - Reduce area graded to no more than five acres per day.
5. **Health Risk Assessment**
- It is unclear from the discussion in the Draft EIR whether carcinogenic risk from worker receptors were estimated as residential receptors, which is conservative; or if carcinogenic risk from worker receptors was not reported. The Final EIR should either include a statement that declares that carcinogenic risk from worker receptors were estimated as residential receptors, if this was done; or include risk for worker receptors.
 - The Draft EIR estimates risk for four receptor types, namely child resident, school child, adult + child and adult resident. On page IV-134, the Draft EIR states that "incremental MEI cancer risks and non-cancer health hazards were calculated for adult residents, residential children ages zero to six years, and for elementary-aged school children at fence-line locations where maximum air concentrations for TACs were predicted. Table L.3-1 presents concentrations and risk values for residence and school locations.
 - The carcinogenic risk value estimated for the school child was calculated with an averaging time of 25,550 days, which is inconsistent with the averaging time of 2,190 days displayed on the top of Table L.3-1 and used in the hazard quotient estimates.
 - Adjustments are allowed by SCAQMD for workers (i.e., a 40-year adjusted exposure based on working eight hours per day, 240 days per year). No other adjustments are acknowledged by SCAQMD for significance determination. Therefore, all receptors used for significance determination in the Final EIR must be modeled as either a residential receptor, which would include students or residential children receptors; or as an occupational receptor.
 - Appendix L includes risk estimates for construction and operational activities. Carcinogenic risk is estimated over an exposure duration, as stated earlier, SCAQMD only recognizes a 40-year adjusted exposure duration for workers and a 70-year exposure duration for residential receptors. Since the construction period for SAIP is proposed to be 1.5 years in duration, an analysis of carcinogenic risk from construction operations related to the SAIP may not have noteworthy meaning. However, the risk from all construction completed under the LAX Master Plan has more meaning because the total duration of all construction associated with the LAX

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Ms. Karen Hoo

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September 15, 2005

- Master Plan would occur over a substantially longer period of time. A discussion of the risk to receptors from SAIP as a portion of the total risk from all construction under the Master Plan appears to be a more appropriate analysis to be presented in the Final EIR.
- The Air Quality Section and Appendix L include risk estimates for construction and operational activities. A summary table that includes both the construction and operational noncarcinogenic chronic risk should be included in the Final EIR for ease of reference.
 - The Final EIR should also include a map of the proposed project and surrounding area that includes receptors, sources and identifies the MICR and receptors with the highest hazard indices.
 - The mass GLC scaler presented in the carcinogenic and chronic construction risk tables in Appendix L (Tables L-4.2 and L-4.3) do not appear to match the mass GLC scaler in the AERMOD diesel output file provided to SCAQMD separately from the Draft EIR. The mass GLC scaler used for risk calculations should be consistent with those in the AERMOD diesel output file. The Final EIR should include risk developed from the concentrations estimated by AERMOD.
6. **CO Hot Spots:** Although CO concentrations were estimated from on-site using AERMOD, the DEIR does not include a discussion on CO hot spots. The Final EIR should contain a discussion of Co hot spots.

SAIP-AR00001

Commissioners
Wayne Rew, Chair
Pat Modugno, Vice Chair
Esther L. Valadez
Leslie G. Bellamy
Harold V. Heisley

If you have any questions please call Julie Moore or Mark Child at (213) 974-6425, Monday through Thursday between 7:30 a.m. 6:00 p.m. Our office is closed on Fridays.

Very Truly Yours,

DEPARTMENT OF REGIONAL PLANNING
James E. Hartl, AICP
Director of Planning

Ronald D. Hoffman, Administrator
Advance Planning Division

RDH:JTM:MC

Attachment: ALUC Resolution dated 4/20/05

cc: ALUC
County of Los Angeles
City of El Segundo

August 22, 2005

Karen Hoo
Los Angeles World Airports
Long Range Planning Department
1 World Way, Room 308
Los Angeles, CA 90045-5803

RE: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
SOUTH AIRFIELD IMPROVEMENT PROJECT (SAIP)
AVIATION CASE NO. AD 017-04

Dear Ms. Hoo:

In response to your letter dated August 1, 2005 regarding the above referenced project, please be advised that in April 2005, the Los Angeles County Airport Land Use Commission (ALUC) ruled to uphold impasse appeals filed against the LAX Master Plan Program which have not been resolved by the Los Angeles City Council. Therefore, implementation of any aspect of the LAX Master Plan can not proceed until the project is either revised to resolve areas of appeal, or the Los Angeles City Council completes the necessary actions to overrule the ALUC's decision on the appeal. Pursuant to Public Utilities Code (PUC) Section 21670.2(a), a four-fifths vote of the City Council is required to successfully overrule the ALUC determination.

The impasse appeals were received from the City of El Segundo and from the County of Los Angeles, and were filed pursuant to PUC Section 21670.2 (a). As no action has been taken by the Los Angeles City Council on the impasse appeal issues, which are directly related to what is now the South Airfield Improvement Project (SAIP), moving forward with the SAIP at this stage would be inappropriate. Enclosed you will find a copy of the ALUC resolution for the action taken on April 20, 2005 on the impasse appeals.

James E. Hartl, AICP
Director of Planning
Dept. of Regional Planning

Rosie O. Ruiz
Secretary to the Commission

320 West Temple Street, Los Angeles, California 90012 Telephone (213) 974-6409 or TDD (213) 617-2292

SAIP-AL00001

James E. Hartl, AICP
Director of Planning
Dept. of Regional Planning

Rosie O. Ruiz
Secretary to the Commission

320 West Temple Street, Los Angeles, California 90012 Telephone (213) 974-6409 or TDD (213) 617-2292

SAIP-AL00001

FROM : FAX NO. : Mar. 11 2002 03:25PM P1

FAX TRANSMITTAL



DATE: 8/31/05

TO: FROM:

Name: Angelica Espinoza Name: Mark Child
Dept.: LAWA Dept.: SAIP
Phone No.: _____ Phone No.: _____
Fax No.: _____ Fax No.: _____

Number of Pages (Including Cover Sheet) _____

SUBJECT: Missing attachment from recent
letter we sent to you regarding comments on
SAIP EIR

COMMENTS:

Thanks,
Mark

faxcov11600g

SAIP-AL00001
P. 01

FROM : FAX NO. : Mar. 11 2002 03:25PM P2

RESOLUTION
LOS ANGELES COUNTY AIRPORT LAND USE COMMISSION

WHEREAS, the Los Angeles County Airport Land Use Commission ("ALUC") met publicly on March 30, 2005 to discuss the appeals submitted by the City of El Segundo and the County of Los Angeles regarding impasses that have resulted between the appellants and the City of Los Angeles over approval of the LAX Master Plan Program ("Master Plan").

WHEREAS, the Commission finds as follows:

1. The State Aeronautics Act ("Act"), Section 21670, et seq. of the California Public Utilities Code ("PUC") requires every county in which there is an airport served by a scheduled airline to establish an airport land use commission.
2. Pursuant to Section 21670.2 of the PUC, the Los Angeles County Regional Planning Commission has the responsibility for acting as the ALUC for Los Angeles County and thereby coordinating the airport planning of public agencies within the County.
3. Section 21670.2 of the PUC also provides that in instances where impasses result relative to airport planning, an appeal may be made to the ALUC by any public agency involved.
4. According to Section 21670(a)(1) of the PUC, one purpose of the Act is to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.
5. As described in Section 21670(a)(2) of the PUC, another purpose of the Act is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.
6. The powers and duties of the ALUC are contained in Section 21674(b) of the PUC which identifies the ALUC's role in coordinating airport planning at the state, regional, and local levels as one to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

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P. 02

7. The ALUC's review of an appeal primarily considers whether the airport planning being appealed is consistent with Article 3.5 of Chapter 4 of the Act (Section 21670 et seq. of the PUC). An appeal may be upheld by the ALUC if it finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the airport planning proposed by the public agency whose planning led to the appeal is not consistent with the purposes of the Act. An appeal shall be denied when the ALUC finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the proposed airport planning is consistent with the purposes of the Act.
8. Impasse appeals were received within 30 days of the date of the Los Angeles City Council's final decision on December 7, 2004 on the Master Plan, which is within the time limit established for receiving appeals by the ALUC pursuant to the ALUC Review Procedures, Chapter 2, Section 5.2.2.
9. On March 17, 2005, the ALUC was sent the following material:
- Appeal submittal from the City of El Segundo dated December 29, 2004 and March 20, 2005
 - Appeal submittal from the County of Los Angeles dated January 5, 2005
 - Correspondence from the California Department of Transportation, Division of Aeronautics dated January 28, 2005
 - Correspondence from Carlyle Hall, attorney for Los Angeles World Airports (2 letters, dated February 25, 2005 and February 28, 2005)
 - Correspondence from ALUC regarding impasse appeals to
 1. Response letter to R. Austin Wiswell dated March 8, 2005
 2. Response letter to Carlyle Hall dated March 15, 2005
 - Section 21670.2 of the PUC
 - ALUC Review Procedures (pages 2-21 through 2-24)
10. On March 30, 2005, the ALUC held a public hearing and received oral and/or written testimony from the two appellants, four elected/appointed officials or their representatives, and three members of the public all speaking in support of the impasse appeals. No one spoke in opposition to the impasse appeals. The City of Los Angeles was given several opportunities to speak; however, no one representing the City spoke or presented any written testimony.
11. The impasse issues from the City of El Segundo relate to **airport capacity and a regional approach to airport planning**. Impasse issues from the County of Los Angeles also concern a regional approach to airport planning, and in addition include **consistency with the Los Angeles**

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- County CLUP and airport security.** The impasses are between the appellants and the City of Los Angeles and concern the City of Los Angeles's decision to approve the Master Plan.
12. Regarding the **airport capacity** impasse:
- a. At the final stage of implementation, the Master Plan proposes to limit the number of aircraft gates to 153 to restrict the airport's capacity to 78.9 million annual passengers (MAP).
 - b. The City of El Segundo believes that restricting gates is an inadequate capacity control and a dispute over airport capacity between the City of Los Angeles and the City of El Segundo has reached an impasse.
 - c. Due to the present, limited ground access system, the maximum capacity of LAX is generally agreed to be 78.9 MAP. The present number of gates at LAX is 115 plus 48 remote stands (for a total of 163 gates).
 - d. An independent analysis of airport capacity was provided to the City of El Segundo by an airport facilities expert. The analysis presented information that caused the City of El Segundo to dispute the method used in the Master Plan to constrain capacity. The independent analysis notes that the present constraining factor, ground access, will be improved allowing increased utilization of gates which could increase the airport capacity to as much as 89 MAP.
 - e. The City of El Segundo contends that safeguards are not in place in the Master Plan to prevent more than 153 of gates from being used at intermediate phases in the implementation of the Master Plan. The Master Plan only restricts the number of gates in the final phase of development when all facilities have been developed.
 - f. Potential discrepancies in passenger capacity could result in unplanned airport impacts in the surrounding community. Unplanned impacts could potentially lead to inappropriate development surrounding the airport. Such development places local jurisdictions, property owners and the airport at odds and thereby prevents the purpose of the Act from being achieved.
 - g. The Master Plan proposes to realign the southernmost runway 50 feet to the south, which is one of the facility enhancements. A multi-family structure in the City of El Segundo is located within the proposed runway protection zone (RPZ). The proposed location of the RPZ will create a new safety problem in the City of El Segundo.

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SAIP-AL00001

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- h. The Act recognizes that noise and safety impacts cannot be completely avoided in airport planning. For this reason, airport land use compatibility planning brings together the affected jurisdictions to mutually-agreed impact levels. This type of coordinated planning between jurisdictions minimizes impacts because the airport's interests are protected while local jurisdictions, understanding the noise and safety impacts that will occur from the airport, plan accordingly and protect the interests of its constituents. Approval of the Master Plan while the MAP issue remains unresolved creates the potential for new noise and safety impacts to be introduced without adequate planning or mitigation and prevents the airport land use compatibility planning described in the Act from being accomplished, thereby thwarting the purposes of the Act.
13. Regarding the **regional approach** impasse:
- a. If the demand for increases in air travel is met with a greater emphasis on other airports in the region, significant capacity increases at LAX would not be necessary. Unnecessarily concentrating airport facilities at one location, LAX, is not the orderly expansion of airports the Act intends.
 - b. The ALUC role in orderly airport planning and development includes coordinating with jurisdictions on preferred locations of airport facilities and expansions with regard to surrounding land use compatibility.
 - c. The appellants contend that the Master Plan did not consider growth at other airports in the region where airport land use compatibility with the surrounding community may be better achieved.
 - d. A regional approach to airport planning that provides for the growth of aviation facilities in undeveloped or less developed areas, such as Palmdale Regional Airport, where airport land use compatibility planning can be more effective would be consistent with the purposes of the Act.
 - e. Providing airport facilities in urban areas can be consistent with the purposes of the Act provided that the public's exposure to excessive noise and safety hazards is minimized.
14. Regarding the **consistency with the CLUP** impasse issue:
- a. The appellant alleges that the ALUC can continue to discuss the matter of the Master Plan's inconsistency with the CLUP and the Los Angeles City Council decision to overrule the ALUC's determination that the Master Plan is inconsistent with the CLUP.

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SAIP-AL00001

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- b. The ALUC does not have the ability under the Act to continue the discussion regarding the inconsistency between the Master Plan and CLUP after the City of Los Angeles took its overrule action. During that overrule process, by resolution, the ALUC issued comments in opposition to the Master Plan as it relates to health and safety policies in the CLUP and opposed the City's overrule. The PUC gives the ALUC this authority and requires that the overruling agency consider those comments before taking final action on the overrule.
 - c. The Los Angeles City Council overruled the ALUC's determination that the Master Plan was inconsistent with the CLUP on December 7, 2004. The decision was made with a 12-3 vote by the City Council.
15. Regarding the **airport security** impasse:
- a. The appellant County of Los Angeles has requested that the City of Los Angeles refrain from taking final action on the Master Plan until the final results of a Rand Corporation study on airport security are released. The Rand Corporation study is focused on the security aspects of the proposed Ground Transportation Center (GTC).
 - b. The Rand Corporation study on airport security is in progress. A release date has not been made public.
 - c. The appellant's discussion on this impasse issue was minimal. Most significantly, the appellant failed to show a sufficient nexus between the security issues to be addressed in the Rand study and the purposes of the Act, including the powers and duties of the ALUC. For this reason, the appellant has failed to meet its burden of proof on the issue.
16. Final approval of the Master Plan will position the plan as the guiding planning document until 2015 (the Master Plan planning horizon). Discrepancies between airport plans and local jurisdictions' general or community plans will impair the ALUC's ability to fulfill its statutory responsibility to coordinate the planning for the areas surrounding each public use airport.
17. Airport land use compatibility planning cannot function in urban areas if airport planning does not include negotiation and coordination with surrounding jurisdictions concerning land use planning. When jurisdictions agree on activity and impact levels and plan using the same assumptions, both take responsibility to minimizing the public's exposure to health and safety impacts from the airport.

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- 18. Pursuant to Section 21670.2(a) of the PUC, the action taken by the ALUC on the impasse appeals may be overruled by a four-fifths vote of the Los Angeles City Council, the public agency whose planning led to the appeal.
- 19. The ALUC Review Procedures, Section 5.5 (ALUC's Possible Actions) provides the standard for action on an impasse appeal. That standard is whether the airport planning being appealed is consistent with the purposes of Article 3.5 of Chapter 4 of the Act (PUC Sections 21670-21679.5).

NOW, THEREFORE, BE IT RESOLVED that the County ALUC:

FOR AVIATION CASE RAV2005-00001 (APPEAL SUBMITTED BY THE CITY OF EL SEGUNDO):

- 1. Upholds the appeal on airport capacity because there are areas that will be affected by implementation of the Master Plan where new noise and safety problems will be created, thus the Master Plan is inconsistent with PUC Section 21670(a)(1).
- 2. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

AND FOR AVIATION CASE RAV2005-00002 (APPEAL SUBMITTED BY THE COUNTY OF LOS ANGELES):

- 1. Denies the appeal concerning the ALUC's prior inconsistency determination on the Master Plan's inconsistency with the CLUP because the ALUC has no authority to discuss the matter after the overrule.
- 2. Denies the appeal on airport security because the appellant has not met the burden of proof by demonstrating there is a nexus between airport security and the purposes of the Act.
- 3. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

I hereby certify that the foregoing resolution was adopted by the Los Angeles County

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SAIP-AL00001

AUG-31-2005 12:13

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Airport Land Use Commission on April 20, 2005.

By Rosie O. Ruiz
 Rosie O. Ruiz, Secretary
 Los Angeles County
 Airport Land Use Commission

APPROVED AS TO FORM:
OFFICE OF THE COUNTY COUNSEL

By Lawrence L. Hafetz
 LAWRENCE L. HAFETZ
 Principal Deputy County Counsel
 Public Works Division

RDH-JTM:MC
04/14/05

7

SAIP-AL00001

AUG-31-2005 12:13

94% P.08

SEP-16-2005 11:48 FROM DEP. EXEC. DIR. RITCHIE TO 6460686 P.03

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 CARMEN J. BORG
 VERA P. LARSEN
 DAVID HAWI
 ANDREW W. SCHWARTZ
 OF COUNSEL
 **NOT LICENSED IN CALIFORNIA

September 9, 2005

Via Facsimile

Karen Hoo
 Long Range Planning
 Los Angeles World Airports
 7301 World Way West, Room 308
 Los Angeles, CA 90045-5803

Re: South Airfield Improvement Project Draft EIR

Dear Ms. Hoo:

As we discussed over the telephone earlier this week, I am writing on behalf of the City of El Segundo ("City") to request a four-week extension in the deadline to submit comments on the air quality portion of the above-referenced draft EIR. The primary reason for this request is that LAWA did not provide us with critical background documents on the EIR's air quality analysis until Tuesday September 6, 2005. The delay in producing these documents—which we requested via a Public Records Act ("PRA") request on August 11, 2005—has prevented the City's air quality consultant from meaningfully analyzing the draft EIR. Because the City's consultant has been on a long-scheduled vacation this week, the City's consultant will not be able to commence that analysis until next week at the earliest.

The need for this request could have been avoided had LAWA responded to the City's PRA request within the ten days required under the Act. Indeed, it appears that LAWA did compile most, if not all, of the relevant information within this period. One of the three CD's prepared in response to this request is dated August 22, 2005, the second two days later, and the third simply as "August 2005." Nevertheless, LAWA did not make the documents available until more than two weeks after they were compiled, a full month after the City's initial request. Even this delayed response came only after my repeated phone calls to inquire as to the availability of these documents. Under these

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SEP-16-2005 11:48 FROM DEP. EXEC. DIR. RITCHIE TO 6460686 P.04

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circumstances, we believe that this request is amply justified.

I appreciate your attention to this request and look forward to your response. Please do not hesitate to contact me if you have any questions.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

ROBERT "PERL" PERLMUTTER

cc: Kim Day

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INGLEWOOD UNIFIED SCHOOL DISTRICT

 401 SOUTH INGLEWOOD AVENUE, INGLEWOOD, CALIFORNIA 90301
 310-419-2707 * 310-677-0685 (Fax)

September 12, 2005

 Los Angeles World Airports
 Long Range Planning
 Attention: Karen Hoo
 7301 World Way West, Room 308
 Los Angeles, CA 90045-5803

**Subject: Response to the Notice of Completion of the Draft Environmental Impact Report
 for the South Airfield Improvement Project of LAX (August 2005)**

Dear Ms. Hoo:

Please consider this correspondence and all prior responses to the LAX expansion as the response to the Notice of Completion of the Draft Environmental Impact Report for the South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX) as prepared by and for the City of Los Angeles.

The Inglewood Unified School District (IUSD) previously responded to the original Environmental Impact Report (September 2001). This prior EIR response remains on file as part of the District's technical response to any and all expansion at LAX and is incorporated by reference to the District's response.

The current Draft EIR (August 2005) was reviewed in its entirety; however, the following sections were reviewed in particular due to their specifics regarding school impacts.

Subsection 4.5.2.2.2 Classroom Disruption
 Including thresholds which are further discussed in Subsection 4.5.4

Subsection 4.5.3.1.3 Single Event Aircraft Noise Exposure
 Table 4.5-6 School Disruption

Subsection 4.5.6.1.4 Single Event Aircraft Noise Exposure and School Disruption
 Table 4.5-19, 4.5-20, 4.5-21

Subsection 4.5.8.1.2 Mitigation Measures and Single Event Noise Exposure Impacts and Classroom Disruption

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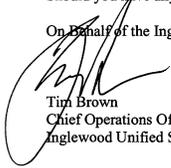
Although the Draft EIR addresses the aforementioned environmental issues, it does not include specific costs involved to mitigate noise and ancillary costs from collateral impacts in and around the streets of Inglewood, which include specifically related increased security concerns and traffic congestion in and around USD school sites.

The draft EIR fails to mention before and after school programs as well. Environmental Justice requires the identification of all impacts and revenue pertaining to the development of a major project, such as the LAX expansion in general and the SAIP in particular. Therefore, upon Inglewood Unified School District receiving LAX settlement funds, impacts shall be considered mitigated.

The Inglewood Unified School District has had prior discussions and has reached a settlement with LAX and related agencies towards the mitigation of sound and related environmental impacts. In the event funds are not received by the District, the SAIP will create significant and disruptive impacts regarding the health, safety and welfare of students, employees and parents and, therefore, environmental impacts will remain without adequate mitigation.

Should you have any questions regarding this letter, please feel free to call me at (310) 419-2793.

On behalf of the Inglewood Unified School District,



Tim Brown
 Chief Operations Officer
 Inglewood Unified School District

CC: Dr. Pamela Short-Powell, Superintendent
 Adrienne Konigar-Macklin, General Counsel

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CHEVALIER, ALLEN & LICHMAN LLP

 Attorneys at Law
 Commercial Litigation • Aviation Law & Litigation • Environmental Law & Litigation

September 14, 2005

 Mr. Jim Ritchie
 City of Los Angeles
 Los Angeles World Airports
 LAX Master Plan/Room 218
 P.O. Box 92216
 Los Angeles, CA 90009-2216

Re: Draft Environmental Impact Report for the South Airfield Improvement Project at Los Angeles International Airport - Comments by the City of Inglewood, City of Culver City and County of Los Angeles

Dear Mr. Ritchie:

The following comments are submitted by the City of Inglewood ("Inglewood"), the City of Culver City ("Culver City"), and the County of Los Angeles ("County") (collectively "Commentors") concerning the Draft Environmental Impact Report ("DEIR") for the South Airfield Improvement Project ("SAIP") at Los Angeles International Airport. The DEIR states that "[b]ecause the SAIP was analyzed in the Master Plan EIR, this Draft EIR is 'tiered' from, and incorporates by reference, the LAX Master Plan Final EIR" [DEIR, p. IV-1]. Commentors therefore incorporate their June 14, 2004 Comments on the Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements by reference into the comments presented herein. These comments should also be considered in the context of the full record of County comments on the LAX Master Plan CEQA and NEPA documents. The full record includes (1) a detailed formal comment letter on the initial Draft EIR/EIR released in 2001; (2) a detailed formal comment letter on the Supplement to the Draft EIS/EIR released in 2003; (3) a detailed formal comment letter on the Final EIS/EIR released in 2004; and (4) a detailed formal comment letter on the Consensus Plan and Alternative E that was submitted to LAWA in 2004. Those County comments are also incorporated herein by reference.

As a threshold issue, a consistent and central theme of Commentors' prior reviews and comments has been that LAWA has failed to present a fully reasoned, thoughtful and straightforward examination of the potential impacts of the proposed Master Plan project. A similar pattern is evident in the current SAIP DEIR. Our concerns have not been allayed by information provided in the DEIR about the SAIP, the design of which was substantially modified after certification of the Final Master Plan EIR ("FEIR"). A close review of LAX

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Master Plan CEQA documents over the past 5 years confirms the reality that the adopted Master Plan improvement project and proposed South Airfield improvements will:

- Facilitate unconstrained growth at LAX;
- Ineffectively serve stated security goals;
- Thwart the underlying goals and objectives of CEQA;
- Place a low priority on phasing of environmental and congestion improvements;
- Further erode environmental justice for residents of neighboring communities;
- Further weaken interagency communication and trust;
- Undermine the impetus for expanded regional air transportation; and
- Codify misleading baseline assumptions concerning noise, air quality and human health.

While the comments that follow will focus primarily on new material presented in the DEIR, it is important to note that the DEIR explicitly claims to be a "capacity neutral" project, in that it will neither increase nor decrease the operating capacity of LAX.¹ While the SAIP is only a single component of the more expansive Master Plan improvements, and, as such, does not provide the full capacity enhancements associated with the larger plan, it is critical to recognize that the SAIP *does* provide for additional airspace capacity at LAX, and it is *only* the gate constraints that are assumed for the complete set of planned LAX improvements that allow a capacity neutral assumption. By itself, the SAIP *does* increase capacity.

The assumed gate constraints are optimistic and represent the linchpin to the entire Master Plan impact analysis. If the assumed constraints are violated (as is almost assuredly going to happen), the entire LAX impact analysis is inadequate, and impacts are substantially understated.

¹ See for example, Section 2.5 of the DEIR, which explicitly states that "When the SAIP is completed in 2008, LAX's practical capacity will continue to be approximately the same." See also DEIR, Section 1, page I-1, "the SAIP itself would not increase airport's ability to accommodate passengers, cargo or aircraft operations, nor would it affect the demand for the use of the airport."

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I. THE DEIR UNDERESTIMATES SAIP CONSTRUCTION EMISSIONS IMPACTS.²

The DEIR effectively relies on the air quality analyses conducted for the larger LAX Master Plan,³ of which the SAIP is a component project, therefore the comments previously submitted for the Master Plan FEIR/FEIS are equally applicable to the estimated air quality impacts of the SAIP. Those comments will not be restated, however the comments contained in Commentors' February 17, 2005 letter to Mr. David B. Kessler of the Federal Aviation Administration in response to the FEIS are incorporated herein by reference and should be viewed as integral components of this comment letter.

The gate constraint assumption addressed above is equally critical to the air quality impact analysis for the SAIP DEIR. If the gate constraints are presumed to be effective, as is the case in the SAIP DEIR, then the only additional impacts associated with the actual implementation of the SAIP are limited to the specific impacts associated with construction equipment (as opposed to the construction impacts plus the operational impacts associated with added airspace capacity). Emissions associated with aircraft, passenger, and airport facility operations are estimated using the methodologies and data assumed in the Master Plan FEIR/FEIS, so there is little additional information on these sources in the DEIR. As a result, the additional comments that follow are related to the estimated construction emissions impacts and, where appropriate, the aggregation of those impacts with other airport emissions.

A. PM-2.5 Exceedances

It is noteworthy that PM-2.5 emission estimates are included in the DEIR. PM-2.5 emissions were not considered in the Master Plan impact analysis, but just as exceedances of both the PM-2.5 CAAQS and NAAQS are demonstrated in the SAIP DEIR, corresponding exceedances would have been demonstrated for the overall Master Plan. Moreover, the exceedances occur under both unmitigated and mitigated conditions, as well as under emissions estimation methodologies that are likely to significantly underestimate actual PM emission rates.

B. Off-road Equipment Emission Factors

The DEIR indicates that emission factors for off-road construction equipment were taken from the California Air Resources Board's (CARB's) OFFROAD Model. This is the appropriate

² See Attachment 1, Meszler Engineering Services Comments on the Air Quality Elements of the August 2005 Draft Environmental Impact Report for the LAX South Airfield Improvement Project

³ As presented in the April 2004 Final Environmental Impact Report (FEIR) and the January 2005 Final Environmental Impact Statement (FEIS).

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source, but the data presented in Table K-2 of Appendix K of the DEIR imply that the extracted emission factors may not be correct.

Since the SO₂ emission rate is determined on the basis of fuel sulfur content, SO₂ emission rates will be discussed separately from the emission rates for VOC, CO, NO_x, and PM. If the emission rates for these latter four emission species from OFFROAD for model year 2005 equipment are extracted, rates that are very close (in most cases) to those indicated in Table K-2 will result. However, these rates differ significantly from fleet average emission rates in 2005. In effect, model year 2005 emission rates assume that all equipment is new, while fleet average emission rates properly assume a mix of older and newer equipment. Unless LAWA intends to require that only new equipment can be used in the SAIP construction, it is not appropriate to use new equipment emission rates.

Comparing model year 1995 and 2005 emission rates from the OFFROAD Model for three of the equipment types listed in Table K-2 provides an indication of the potential sensitivity of emission impacts to such an assumption. This comparison shows that 1995 emission rates would be on the order of five times higher for VOC, two times higher for CO and NO_x, and three times higher for PM. Thus, a typical 2005 construction vehicle fleet mix would exhibit emission rates significantly higher than those assumed in the DEIR.

For SO₂, the DEIR assumes that all diesel fuel will contain 15 ppmW sulfur beginning in 2005. While this assumption is correct for 2007 and later, CARB currently assumes that 2005 diesel fuel sulfur in the South Coast Air Basin will be 130 ppmW.⁴ Since SO₂ emission rates are directly proportional to fuel sulfur content, this means that actual 2005 SO₂ emissions from construction vehicles (and other diesel equipment) will be approximately nine times higher than estimated in the DEIR.

These problems do not appear to affect that portion of the construction vehicle emissions inventory that is based on on-road emission factors derived from the CARB EMFAC model.

C. Reverse Thrust Emissions

This issue has been covered thoroughly in previous comment letters, but it is worth expanding those comments here since the DEIR now formalizes the assertion that reverse thrust emissions are inherently included in the "extremely conservative" takeoff and climbout mode

⁴ See "OFFROAD Modeling Change Technical Memo: Off-Road Exhaust Emissions Inventory Fuel Correction Factors," California Air Resources Board, July 25, 2005.

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emission estimates.⁵ As in the responses to comments to the Master Plan FEIR/FEIS, where this assertion was originally presented, there are no calculations demonstrating that the "extra" takeoff and climbout time is sufficient to offset reverse thrust operating time, or that emissions in climbout mode are equivalent to ground-level reverse thrust emissions from an ambient air quality standpoint. Instead, the assertion simply stands alone to be taken as demonstrative fact.

Tables K-8 and K-9 of DEIR Appendix K present the actual assumed takeoff and climbout times for all LAX aircraft. A quick review of these data indicates that the combined time of these two operating modes is generally on the order of 1.5 to 2 minutes. A typical reverse thrust operation is on the order of 15-20 seconds (0.25-0.33 minutes). Therefore, takeoff and climbout times must be overestimated by at least 15-30 percent to adequately incorporate reverse thrust operating time, and substantially more to be "extremely conservative." Accordingly, it would seem that a supporting demonstration would be in order before an assumption of conservatism is offered as fact.

D. Background Concentrations

Here also, prior comments provide extensive discussion of concerns associated with the use of the linear rollback method to estimate future background concentrations. Data presented in the DEIR provide additional insight into the difficulty associated with this approach. For example, the DEIR presents 1999-2003 data for the monitoring station used to estimate LAX background concentrations. [See Attachment 1, Meszler Engineering Services Report, page 4, Figure 1. "24-Hour PM-10 Concentrations ($\mu\text{g}/\text{m}^3$)" which presents a summary of that data for 24-hour PM-10 concentrations, selected for illustrative purposes since PM is the pollutant for which the greatest air quality impacts are predicted.] As indicated in Figure 1, a simple linear trend of 1999-2003 data indicates a modest uptrend in local PM-10 measurements. However, based on emission reductions expected in central Los Angeles between 2000 and 2005, the DEIR forecasts the 2005 background concentration to be approximately 30 percent below the trend line forecast.

⁵ The implication of the DEIR is that because takeoff and climbout times are based on maximum aircraft weight, and not all aircraft will be operating at that weight, that the emission rates for these modes are overstated. That may well be true, but the DEIR makes no attempt to quantify the degree to which: (1) actual weight will vary from maximum weight, or (2) the impact this variation has on takeoff and climbout times. Instead, the DEIR simply makes the qualitative assertion that this results in the times being "extremely conservative." (see DEIR page IV-92, footnote 19). As a result, it is not possible to compare reverse thrust times to the asserted "additional" takeoff and climbout times.

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Because the assumed reduction in background concentrations is the primary reason that airport emissions increases can be accommodated within the limits of the CAAQS/NAAQS (except for PM), it is incumbent on project proponents to demonstrate that linear rollback is reasonable for an emissions source that is on the perimeter of the inventory domain. If inventory reductions cannot be reasonably expected to produce similar air quality impacts throughout the domain, as could be the case at LAX with prevailing winds off the Pacific, then domain-wide emission reductions cannot serve as a reliable basis to estimate future changes in local background concentrations. As demonstrated in Figure 1, inventory reductions for PM in central Los Angeles do not appear to provide accurate future emission forecasts for background PM at LAX. While it would be prudent to conduct substantially more detailed analysis than the simple example illustrated before reaching a definitive conclusion, the point is that no such analysis has been performed for LAX, yet the entire range of air quality impacts depend directly on the accuracy of background emissions estimates.

E. Background PM-2.5 Concentrations

The 24-hour background concentration for PM-2.5 is entirely inconsistent with the assumed 24-hour background concentration for PM-10. It is physically impossible for PM-2.5 concentrations ($83.7 \mu\text{g}/\text{m}^3$) to exceed PM-10 concentrations ($61 \mu\text{g}/\text{m}^3$), as the latter includes the former. Either the assumed PM-10 concentration is too low, or the PM-2.5 concentration is too high. If the latter, then the air quality analysis would be conservative for PM-2.5, but it is unclear why such an inconsistency is carried throughout the DEIR. The DEIR does indicate that the two values are derived from different sources, but it is not clear why PM-2.5 to PM-10 ratios were not used in place of what appear to be absolute PM-2.5 data.

F. Combined Project Impacts

DEIR Table 4.3-14 presents the estimated air quality impacts of the SAIP, while Table 4.3-15 presents the combined impacts of the SAIP and other concurrent projects. From these tables, it is apparent that the impacts of the non-SAIP projects are assumed to be zero, except in the case of annual average PM-10 concentrations which actually decline when the SAIP is combined with other concurrent projects ($43.3 \mu\text{g}/\text{m}^3$ with the SAIP alone, versus $42.2 \mu\text{g}/\text{m}^3$ combined). It would be prudent for the null impact of the non-SAIP projects to be explicitly stated (as opposed to requiring the reader to compare forecasted air quality concentrations from two different tables) and justified. If none of the concurrent projects involve construction or other emissions equipment, it should be sufficiently simple to document that fact. As it is, the reader is left with only elementary project descriptions and tabulated null impacts.

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G. APU Assumptions

APU emissions, particularly as related to PM, are discussed extensively in previous Master Plan comment letters, and those comments apply equally to the SAIP. However, Tables K-10 and K-11 of DEIR Appendix K respectively list the APU assumptions used for the 2003 and 2005 air quality analyses. A cursory comparison of the tables indicates differences between 2003 and 2005 APU assumptions, even though the DEIR implies that such differences should not exist. For example, in Table K-10 (1 of 10), the following APU assumptions are indicated for 2003:

Airframe	APU	Operating Minutes per LTO
Airbus A300B	GTCP 660	15
Airbus A300-C4-200	GTCP 660	15
Airbus A310	GTCP 85	15

In Table K-11 (1 of 10), the corresponding APU assumptions indicated for 2005 are:

Airframe	APU	Operating Minutes per LTO
Airbus A300B	GTCP 660	7
Airbus A300-C4-200	None	
Airbus A310	None	

The DEIR should clarify these and any other inconsistencies.

H. Cumulative PM Impacts Do Not Meet CAAQS/NAAQOS

As with the LAX Master Plan, cumulative PM-10 impacts result in continuing violations of the CAAQS. CAAQS violations occur even with all indicated mitigation measures in place. Additionally, violations of both the CAAQS and the NAAQS occur for mitigated PM-2.5. This is particularly important since PM-2.5 impacts were not estimated in the Master Plan FEIR/FEIS. Nevertheless, the significance of SAIP PM-2.5 impacts clearly demonstrates that the PM-2.5 impacts of the overarching Master Plan would be equally (if not more) significant.

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II. THE SAIP WILL HAVE SIGNIFICANT INCREASED IMPACTS ON HYDROLOGY AND WATER QUALITY WHICH MUST BE MITIGATED.⁶

A. The Certified Master Plan Final EIR Presented Misleading Conclusions Concerning Hydrologic Impacts on Dominguez Channel

The 2004 LAX Master Plan Final EIR indicated that impacts on Dominguez Channel would be significantly lower, for all four studied alternatives, than now presented in the SAIP DEIR. The FEIR indicated that the Master Plan reduction in permeable area in the Dominguez Channel would range from a high of 7% (for Alternative C) to a low of 3% for the proposed Alternative D. Even at these levels, the FEIR acknowledged potentially significant adverse cumulative impacts on regional drainage facilities.

Ironically, the DEIR for the newly modified SAIP would significantly increase the impact on Dominguez Channel relative to Findings contained in the FEIR. Whereas the Final Master Plan EIR forecast a 3% reduction in permeable area for the preferred Alternative D, the SAIP would reduce permeable area by an estimated 14%. The new estimate represents twice the level of the highest-impact alternative previously studied, and more than triple the impact of the preferred Alternative D as presented in the Master Plan EIR. This is a direct contravention of CEQA, which requires that Lead Agencies utilize project alternatives to minimize or avoid significant impacts.

B. The Significant Adverse Direct and Cumulative Impacts on Dominguez Channel Can and Should be Mitigated by LAWA

The DEIR notes, in §4.1.7, "There are currently capacity constraints within the Dominguez Channel Watershed, especially at the point where the Dominguez subbasin drains into a Los Angeles County conveyance facility that was designed for a 10-year storm event. Although the SAIP would be designed to address flooding within the boundaries of the project study area, increased surface water runoff and peak flows resulting from the project, in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by the regional drainage infrastructure serving the Dominguez Channel watershed." The DEIR then finds, in §4.1.9, that implementation of Mitigation Measure HWQ-1 under the LAX Master Plan⁷ would mitigate this impact but, "...because this mitigation measure

⁶ See Attachment 2, A. C. Lazzaretto & Associates Preliminary Review of Hydrology, Water Quality and Human Health Risk Assessments Provided in the SAIP Draft EIR

⁷ Mitigation Measure HWQ-1 is as follows: "MM-HWQ-1. Upgrade Regional Drainage Facilities. This mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to

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is not fully within the jurisdiction of the lead agency to implement, the implementation of the mitigation cannot be guaranteed and therefore, the cumulative impact is considered to be potentially significant and unavoidable."

A review of the recommended drainage and water quality improvements provided in the Concept Drainage Plan provided in Appendix A indicates that LAWA has not fulfilled its commitment to identify "the overall improvements necessary to provide adequate drainage capacity to prevent flooding." Though significantly weighted toward the water quality review (compared with the drainage plan components), the CDP fails to take advantage of one obvious means of providing enhanced flood protection: the utilization of its water quality detention facilities to provide sustained storm water retention. Whether through this and/or other means, the County requests that LAWA provide on-site storm water retention facilities with capacity sufficient to contain all flows that would exceed the residual (unused) capacity of the downgradient storm drain system.

C. The SAIP Project May Impact Groundwater Resources

LAX is located just north of one of three critical seawater barriers (the West Coast Basin Barrier) that prevent seawater intrusion into the Central and West Coast Basin groundwater resources. The barriers are operated by the Los Angeles County Department of Public Works (LADPW), and the water replenishment supplies are purchased and supplied by the Water Replenishment District (WRD). The County requests that LAWA evaluate the extent to which reduced permeable land area may impact natural basin replenishment in this critical area. The

upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development." Commitment HWQ-1 is as follows: "HWQ-1. Concept Drainage Plan. This LAX Master Plan commitment requires the preparation of a Conceptual Drainage Plan (CDP) that identifies the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The CDP will provide the basis and specifications by which detailed drainage improvement plans shall be designed in conjunction with site engineering specific to each LAX Master Plan project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water. In accordance with this commitment, LAWA will prepare SUSMPs for individual LAX Master Plan projects. The overall result of LAX Master Plan Commitment HWQ-1 will be a drainage infrastructure that provides adequate drainage capacity to prevent flooding with the potential to harm people or damage property and to control peak flow discharges, and that incorporates BMPs to minimize the effect of airport operations on surface water quality and prevent a net increase of pollutant loads to receiving water bodies."

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County also requests that LAWA coordinate with LADPW and WRD to determine whether the expanded detention basins (see Item B. above) may be designed and located to enhance groundwater management controls.

III. THE DEIR DOES NOT ADEQUATELY DISCLOSE THE INCREASED ADVERSE HUMAN HEALTH IMPACTS OF SAIP CONSTRUCTION AND PROVIDES NO MITIGATION FOR THOSE INCREASED HUMAN HEALTH IMPACTS.

A. The Human Health Risk Assessment Must Show the Geographic Distribution of Emissions and Adverse Health Effects.

In order to fully disclose impacts associated with air pollutant and TAC emissions, the EIR needs to show the geographic distribution of pollutants and resulting health risks. This is routinely done by graphically depicting isopleths of pollutant concentrations (and the numerical values of the cancer and non-cancer health risks) on a map. Meaningful analysis of project impacts, the distribution of impacts, and the focus of mitigation to reduce those impacts is greatly impeded by not disclosing the geographic distribution of pollutants and resulting health risks. For example, if the geographic distribution of pollutants and health risk was over the ocean or primarily over industrial land uses, the adverse health risk would be substantially lower than if the geographic distribution of pollutants was over residential land uses and schools.

B. The DEIR Must Fully Disclose Chronic & Acute Non-Cancer Health Effects.

CEQA requires disclosure of impacts in layman's terms. While the DEIR quantitatively expresses chronic and acute non-cancer risks as a measure of the hazards index, it does not describe those risks. As an example, prolonged exposure to fine particulates results in increased respiratory symptoms and disease such as asthma, decrease lung function especially in children, alterations in lung tissue structure, respiratory tract defense mechanisms, and premature death of individuals subjected to chronic exposure of high concentrations of fine particulates. CEQA and recent case law [Bakersfield Citizens for Local Control v. City of Bakersfield, 124 Cal. App. 4th 1184 (2004)] requires that EIR air quality assessments not only quantify but also describe the impacts in terms understandable by the public at large.

C. The Communities to the East of LAX will be Disproportionately Impacted by SAIP Health Risks.

A review of the SAIP project description and the alignment of aircraft take-off and landing patterns indicates that the health risk impacts associated with the project will primarily affect areas located to the east of the runways. Commentors are concerned about the potential

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inequity of this impact, and again requests that the EIR depict the geographic distribution of pollutants and resulting health risks to adequately inform decision makers of project impacts.

D. The DEIR Fails to Disclose Environmental Justice Impacts.

In 1999, Senate Bill 115 was passed making environmental justice a requirement of CEQA (*Public Resources Code* §§ 72000-72001). The analysis is intended to determine whether minority and low-income communities are unfairly burdened by project impacts, with the goal of using mitigation measures to create a level playing field. Despite this requirement, the DEIR did not include an analysis of impacts on minority and low-income communities to determine whether they are unfairly burdened by project impacts, particularly those associated with Human Health Risks. Commentors again request that LAWA utilize the HHRA to quantify environmental justice impacts, including a detailed map showing the geographic distribution of health risks.

E. LAWA Must Provide Mitigation for Health Risks to the Maximum Extent Feasible.

DEIR Section 4.4 [p. IV-122] "Human Health Risk Assessment" states, in part, that "[b]ecause known level details were not available regarding construction phasing, the program-level LAX Master Plan Final EIR did not address health risks associated with construction activities of any individual Master Plan components, including the SAIP, nor did it consider specific impacts associated with changes in operations during construction, such as those that would occur as a result of the closure of Runway 7R-25L during construction of the SAIP . . ." However, the DEIR states elsewhere that LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program (MMRP) have been identified to mitigate the anticipated short-term construction-related impacts. [p. IV-34] Where additional mitigation is required to address impacts specific to the SAIP, new mitigation measures are evaluated and proposed. [p. I-5]. See also p. IV-5 [". . . new mitigation measures are separately identified after the various impact conclusions and proposed for adoption as conditions of approval."]

Although the DEIR states that SAIP human health impacts are greater than previously reported for the LAX Master Plan [p. I-11], it also states that "[n]o additional project specific mitigation measures are recommended in connection with the SAIP" [p. I-12]

Because health risks dramatically and permanently diminish the quality of life (including premature death) of the impacted population, LAWA must commit to mitigating these impacts to the maximum extent feasible. Mitigation should include the incorporation, as part of Phase 1 improvements, of electrical support equipment or ultra-low emissions technology to reduce health

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VI. THE AREAS OF KNOWN CONTROVERSY SECTION ADDRESSES OPERATIONS OF THE AIRFIELD FOLLOWING COMPLETION OF THE SAIP, BUT DOES NOT ADDRESS KNOWN CONTROVERSIES DURING SAIP CONSTRUCTION.

The very brief "Areas of Known Controversy" Section [DEIR Section 1.4, p. I-17] states that areas of known controversy "are related primarily to potential aircraft noise exposure in the City of El Segundo related to the approximately 55-foot relocation of Runway 7R-25L to the south. The areas of concern relate to both the relocation of the runway and concern that runway use patterns would change after construction of the SAIP. These concerns are addressed in this DEIR" In that "all effects related to the operation of the airport following completion of the SAIP are considered to be fully addressed in the LAX Master Plan Final EIR and are not evaluated further in this document." [DEIR, p. IV-2] the DEIR does not address the major area of controversy associated with SAIP construction - the transfer of aircraft operations to the North Airfield Complex and resulting increased noise impacts on schools and residents. "Noise sensitive uses in the County of Los Angeles . . . and City of Inglewood would be newly exposed to high noise levels and therefore these construction-related impacts would conflict with the respective plan noise element policies." [DEIR, page V-4] During relocation of Runway 7R-25L, there will be no aircraft noise in El Segundo. Aircraft noise will be transferred to the other three runways.

Temporary closure of Runway 7R-25L would redistribute all aircraft operations among the remaining three runways resulting in temporary noise impacts on some public schools located in Inglewood and Los Angeles County . . . such aircraft noise would include 11 schools newly exposed to noise of 65 CNEL and higher, 24 schools exposed to noise increases of 1.5 CNEL or more in areas exposed to 65 CNEL and higher, and 6 schools newly exposed to interior noise levels that result in classroom disruption. These aircraft noise impacts would be temporary (approximately 8 months) and unavoidable for those schools not subject to an existing aviation easement until the relocation of Runway 7L-25R is complete. [DEIR, page V-39]

Approximately half of the operations at the airport are from the South Airfield Complex, including almost all south and east bound traffic, as well as all wide-body departure traffic. The closure of Runway 7R-25L would require that portion of the traffic to be rerouted to Runway 7L-25R and the north airfield complex. [DEIR, p. II-15]. See also DEIR, p. II-17 [Runway 7R-25L would be closed for approximately eight months and all aircraft operations would be rerouted and distributed among the south airfield Runway 7L-25R and the two north airfield Runways 6L-24R and 6R-24L.]

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VII. THE DEIR PROVIDES NO NEW OR ADDITIONAL MITIGATION MEASURES FOR THE INCREASED SAIP CONSTRUCTION IMPACTS.

The DEIR states that "LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program (MMRP) have been identified to mitigate the anticipated short-term construction-related impacts."⁸ [DEIR, p. IV-34] "Where additional mitigation is required to address impacts specific to the SAIP, new mitigation measures are evaluated and proposed. [DEIR, p. I-5] ". . . new mitigation measures are separately identified after the various impact conclusions and proposed for adoption as conditions of approval." [DEIR, p. IV-5]. And yet, the DEIR contains no new mitigation measures for the newly identified, increased SAIP construction impacts. For example:

Noise - "SAIP construction would have no significant noise impacts and no additional mitigation is required." [DEIR, p. I-12]. "Construction traffic would not have a significant noise impact and additional mitigation is not required." [DEIR, p. I-12]. "Potentially significant and unavoidable aircraft noise exposure impacts during SAIP construction would remain [DEIR, p. I-15] and no other feasible measures [i.e. other than LAX Master Plan Commitments and Mitigation Measures] are available to either eliminate or diminish the significant, but temporary aircraft noise impacts. [DEIR, p. I-14]. Other than LAX Master Plan commitments and mitigation measures related to aircraft noise impacts as they relate to schools, no additional mitigation measures are provided. [DEIR Section 5.13.4.2, p. V-39]

Off-Airport Surface Transportation - Section 4.2.1 [DEIR, p. IV-34] - "LAX Master Plan commitments and mitigation measures consistent with the Master Plan Mitigation Monitoring and Reporting Program (MMRP) have been identified to mitigate the anticipated short-term construction-related impacts."

Air Quality - "No additional project specific mitigation measures are recommended in connection with the SAIP." [DEIR, pp. I-10, IV-121, IV-141]

Health Risk Assessment - "No additional project specific mitigation measures are recommended in connection with the SAIP." [DEIR, p. I-12]

⁸ The DEIR incorporates the same mitigation condition as in the LAX Master Plan FEIR - "Mitigation measures and LAX Master Plan commitments are applicable to the extent that the use of airport revenue to fund such measure is permissible under federal law and policies, or the ability of LAWA to develop other state or federal funding sources." [DEIR, p. IV-4, fn. 4]

risks. Mitigation should also include incentives for reduced aircraft emissions. The SAIP DEIR mitigation measures must also include a funding mechanism to pay for the increased cost to the County of health care services incurred as a result of the increased health risks associated with the proposed project.

IV. THE DEIR FAILS TO ADEQUATELY ANALYZE THE CUMULATIVE IMPACTS OF SAIP CONSTRUCTION.

The DEIR addresses six categories of environmental resources: (1) hydrology/water quality; (2) ground transportation; (3) air quality; (4) noise; (5) biotic communities; and (6) human health risks, which are potentially subject to construction related impacts. "In general, with the exception of hydrology/water quality, all effects related to the operation of the airport following completion of the SAIP are considered to be fully addressed in the LAX Master Plan Final EIR and are not evaluated further in this document." [DEIR, p. IV-2] "The SAIP is consistent with the entitlements approved for the LAX Master Plan, and thus, the cumulative effect of this project has been adequately addressed in the LAX Master Plan EIR." [DEIR, p. IV-5] The cumulative impacts of the SAIP project could not have been adequately addressed in the FEIR where the impacts of SAIP construction were not fully identified and analyzed until preparation of the DEIR.

Moreover, the DEIR fails to analyze the cumulative impacts of overlapping Alternative D Phase I projects [DEIR, p. III-10], concurrent stand-alone LAX construction projects [i.e., non-Master Plan construction activities [DEIR, p. III-11], and LAX Developments Projects Independent of the Master Plan. The DEIR does not provide construction schedules for those other projects, therefore it cannot be determined what the cumulative impacts of SAIP construction and other concurrent projects will be.

V. THE DEIR UNDERSTATES THE EXTENT AND DURATION OF SAIP CONSTRUCTION IMPACTS ON OFF-AIRPORT SURFACE TRANSPORTATION.

The DEIR cites only one intersection, at Imperial Highway and the I-105 Ramps east of Aviation Boulevard, that would potentially be significantly impacted by traffic generated during construction of the SAIP [DEIR, p. I-7]. Given the extent and duration of the SAIP construction project, it is highly improbable that only one intersection in the LAX area will be impacted by construction traffic. Similarly, the DEIR states that "project-related impacts associated with the SAIP would be short term, on the order of one month in duration [emphasis added] [DEIR, p. I-8], yet, elsewhere, the DEIR states that SAIP construction will require eight [DEIR, pp. I-13, II-15, II-17] to twelve [DEIR, p. IV-122] months. SAIP construction traffic impacts should be analyzed throughout the entire SAIP construction period.



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The DEIR should include additional mitigation measures for the increased SAIP construction impacts.

VIII. THE FEIR SHOULD INCLUDE AN UPDATED REFERENCE TO THE JUNE 21, 2005 VARIANCE.

The DEIR states that "[t]he airport is currently operating under a variance, which became effective on March 21, 2001" [DEIR, p. IV-165] and that operation of the airport after implementation of the SAIP will continue under the variance status and the airfield changes would be reflected in future reporting and future variance requests. [DEIR, Section 2.7.3, p. II-24] The FEIR should include an updated reference to the revised Variance approved by the California Department of Transportation on June 21, 2005.

The County of Los Angeles and Cities of Inglewood and Culver City thank LAVA for the opportunity to comment on the SAIP DEIR.

Sincerely,

CHEVALIER, ALLEN & LICHMAN, LLP

Berne C. Hart

Attachments [2]

cc: Mr. David B. Kessler, Federal Aviation Administration
Anita Willis, Esq., City Attorney, City of Inglewood
Dave McCarthy, Esq., Assistant City Attorney, City of Culver City
Thomas J. Faughnan, Esq., Principal Deputy County Counsel, County of Los Angeles

ATTACHMENT 1

SAIP-AL00004

SAIP-AL00004

**Comments on the Air Quality Elements
of the August 2005 Draft
Environmental Impact Report for the
LAX South Airfield Improvement Project**

Prepared for:

**The County of Los Angeles,
The City of Inglewood, and
The City of Culver City**

Prepared by:



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September 13, 2005

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Introduction: I have reviewed the air quality portions of the August 2005 Draft Environmental Impact Report (DEIR) for the LAX South Airfield Improvement Project (SAIP). Since the DEIR effectively relies on the air quality analyses conducted for the larger LAX Master Plan,¹ of which the SAIP is a component project, the comments previously submitted for the Master Plan FEIR/FEIS are equally applicable to the estimated air quality impacts of the SAIP. For convenience, those comments will not be restated, but letters of comment dated June 6, 2004, February 16, 2005, and February 17, 2005 are hereby incorporated by reference and should be viewed as integral components of this comment letter.²

While all additional comments that follow will focus primarily on new material presented in the DEIR, it is important to note that the DEIR explicitly claims to be a "capacity neutral" project, in that it will neither increase nor decrease the operating capacity of LAX.³ While the SAIP is only a single component of the more expansive Master Plan improvements, and, as such, does not provide the full capacity enhancements associated with the larger plan, it is critical to recognize that the SAIP *does* provide for additional airside capacity at LAX and it is *only* the gate constraints that are assumed for the complete set of planned LAX improvements that allow a capacity neutral assumption. By itself, the SAIP *does* increase capacity.

It is my view that the assumed gate constraints are optimistic and represent the linchpin to the entire Master Plan impact analysis. If the assumed constraints are violated (as is almost assuredly going to happen), the entire LAX impact analysis (including the air quality portions thereof) is inadequate (with impacts being substantially understated). The gate constraint assumption is equally critical to the air quality impact analysis for the SAIP DEIR. If the gate constraints are presumed to be effective, as is the case in the SAIP DEIR, then the only additional impacts associated with the actual implementation of the SAIP are limited to the specific impacts associated with construction equipment (as opposed to the construction impacts plus the operational impacts associated with added airside capacity). Emissions associated with aircraft, passenger, and airport facility operations are estimated using the methodologies and data assumed in the Master Plan FEIR/FEIS, so that there is little additional information on these sources in the SAIP DEIR. As a result, the additional comments that follow are related to the estimated construction emissions impacts and, where appropriate, the aggregation of those impacts with other airport emissions.

PM-2.5 Exceedances: It is noteworthy that PM-2.5 emission estimates are included in the DEIR. PM-2.5 emissions were not considered in the Master Plan impact analysis, but just as exceedances of both the PM-2.5 CAAQS and NAAQS are demonstrated in the SAIP DEIR, corresponding exceedances would have been demonstrated for the overall Master Plan.

¹ As presented in an April 2004 Final Environmental Impact Report (FEIR) and a January 2005 Final Environmental Impact Statement (FEIS).

² June 6, 2004 letter in response to the LAX Master Plan FEIR. February 16, 2005 letter in response to the LAX Master Plan FEIS. February 17, 2005 letter to Mr. David B. Kessler of the Federal Aviation Administration in response to the LAX Master Plan FEIS.

³ See for example, Section 2.5 of the DEIR, which explicitly states that "When the SAIP is completed in 2008, LAX's practical capacity will continue to be approximately the same."

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Moreover, the exceedances occur under both unmitigated and mitigated conditions, as well as under emissions estimation methodologies that are likely to significantly underestimate actual PM emission rates (as explained in detail in the cited reference letters).

Offroad Equipment Emission Factors: The DEIR indicates that emission factors for offroad construction equipment were taken from the California Air Resources Board's (CARB's) OFFROAD model. This is the appropriate source, but the data presented in Table K-2 of Appendix K of the DEIR imply that the extracted emission factors may not be correct.

Since the SO₂ emission rate is determined on the basis of fuel sulfur content, I will discuss it separately from the emission rates for VOC, CO, NO_x, and PM. If I extract emission rates for these latter four emission species from OFFROAD for model year 2005 equipment, I get rates that are very close (in most cases) to those indicated in Table K-2. However, these rates differ significantly from fleet average emission rates in 2005. In effect, model year 2005 emission rates assume that all equipment is new, while fleet average emission rates properly assume a mix of older and newer equipment. Unless LAX intends to require that only new equipment can be used in the SAIP construction, it is not appropriate to use new equipment emission rates.

To provide an indication of the potential sensitivity of emission impacts to such an assumption, I compared model year 1995 and 2005 emission rates from the OFFROAD model for three of the equipment types listed in Table K-2. This comparison shows that 1995 emission rates would be on the order of five times higher for VOC, two times higher for CO and NO_x, and three times higher for PM. Thus, a typical 2005 construction vehicle fleet mix would exhibit emission rates significantly higher than those assumed in the DEIR.

For SO₂, the DEIR assumes that all diesel fuel will contain 15 ppmW sulfur beginning in 2005. While this assumption is correct for 2007 and later, CARB currently assumes that 2005 diesel fuel sulfur in the South Coast Air Basin will be 130 ppmW.⁴ Since SO₂ emission rates are directly proportional to fuel sulfur content, this means that actual 2005 SO₂ emissions from construction vehicles (and other diesel equipment) will be approximately nine times higher than estimated in the DEIR.

These problems do not appear to affect that portion of the construction vehicle emissions inventory that is based on onroad emission factors derived from the CARB EMFAC model.

Reverse Thrust Emissions: This issue has of course been covered thoroughly in the cited reference letters, but it is perhaps worth expanding that discussion slightly since the DEIR now formalizes the assertion that reverse thrust emissions are inherently included in the "extremely conservative" takeoff and climbout mode emission estimates.⁵ As in the responses to comments

⁴ See "OFFROAD Modeling Change Technical Memo: Off-Road Exhaust Emissions Inventory Fuel Correction Factors," California Air Resources Board, July 25, 2005.

⁵ The implication of the DEIR is that because takeoff and climbout times are based on maximum aircraft weight, and not all aircraft will be operating at that weight, that the emission rates for these modes are overstated. That may well be true, but the DEIR makes no attempt to quantify the degree to which: (1) actual weight will vary from

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to the Master Plan FEIR/FEIS, where this assertion was originally presented, there are no calculations demonstrating that the "extra" takeoff and climbout time is sufficient to offset reverse thrust operating time, or that emissions in climbout mode are equivalent to ground-level reverse thrust emissions from an ambient air quality standpoint -- instead the assertion simply stands alone to be taken as demonstrative fact.

Tables K-8 and K-9 of DEIR Appendix K present the actual assumed takeoff and climbout times for all LAX aircraft. A quick review of these data indicates that the combined time of these two operating modes is generally on the order of 1.5 to 2 minutes. A typical reverse thrust operation is on the order of 15-20 seconds (0.25-0.33 minutes). Therefore, takeoff and climbout times must be overestimated by at least 15-30 percent to adequately incorporate reverse thrust operating time, and substantially more to be "extremely conservative." Accordingly, it would seem that a supporting demonstration would be in order before an assumption of conservatism is offered as fact.

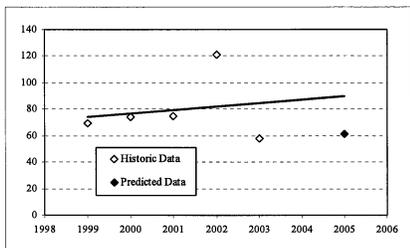
Background Concentrations: Here also, the cited reference letters provide extensive discussion of concerns associated with the use of the linear rollback method to estimate future background concentrations. There are data presented in the DEIR that provide additional insight into the difficulty associated with this approach. For example, the DEIR presents 1999-2003 data for the monitoring station used to estimate LAX background concentrations. Figure 1 presents a summary of that data for 24-hour PM-10 concentrations, selected for illustrative purposes since PM is the pollutant for which the greatest air quality impacts are predicted. As indicated, a simple linear trend of 1999-2003 data indicates a modest uptrend in local PM-10 measurements. However, based on emission reductions expected in central Los Angeles between 2000 and 2005, the DEIR forecasts the 2005 background concentration to be approximately 30 percent below the trend line forecast.

Since the assumed reduction in background concentrations is the primary reason that airport emissions increases can be accommodated within the limits of the CAAQS/NAAQs (except for PM), it is incumbent on project proponents to demonstrate that linear rollback is reasonable for an emissions source that is on the perimeter of the inventory domain. If inventory reductions cannot be reasonably expected to produce similar air quality impacts throughout the domain, as could be the case at LAX with prevailing winds off the Pacific, then domain-wide emission reductions cannot serve as a reliable basis to estimate future changes in local background concentrations. As demonstrated in Figure 1, inventory reductions for PM in central Los Angeles do not appear to provide accurate future emission forecasts for background PM at LAX. While it would be prudent to conduct substantially more detailed analysis than the simple example illustrated herein before reaching a definitive conclusion, the point is that no such analysis has yet been performed for LAX -- yet the entire range of air quality impacts depend directly on the accuracy of background emissions estimates.

maximum weight, or (2) the impact this variation has on takeoff and climbout times. Instead, the DEIR simply makes the qualitative assertion that this results in the times being "extremely conservative." (see DEIR page IV-92, footnote 19). As a result, it is not possible to compare reverse thrust times to the asserted "additional" takeoff and climbout times.

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Figure 1. 24-Hour PM-10 Concentrations (µg/m³)



Background PM-2.5 Concentrations: The 24-hour background concentration for PM-2.5 is entirely inconsistent with the assumed 24-hour background concentration for PM-10. It is physically impossible for PM-2.5 concentrations (83.7 µg/m³) to exceed PM-10 concentrations (61 µg/m³), as the latter includes the former. Either the assumed PM-10 concentration is too low, or the PM-2.5 concentration is too high. If the latter, then the air quality analysis would be conservative for PM-2.5, but it is unclear why such an inconsistency is carried through the DEIR. The DEIR does indicate that the two values are derived from different sources, but it is not clear why PM-2.5 to PM-10 ratios were not used in place of what appear to be absolute PM-2.5 data.

Combined Project Impacts: DEIR Table 4.3-14 presents the estimated air quality impacts of the SAIP, while Table 4.3-15 presents the combined impacts of the SAIP and other concurrent projects. From these tables, it is apparent that the impacts of the non-SAIP projects are assumed to be zero, except in the case of annual average PM-10 concentrations which actually decline when the SAIP is combined with other concurrent projects (43.3 µg/m³ with the SAIP alone, versus 42.2 µg/m³ combined). It would be prudent for the null impact of the non-SAIP projects to be explicitly stated (as opposed to requiring the reader to compare forecasted air quality concentrations from two different tables) and justified. If none of the concurrent projects involve construction or other emissions equipment, it should be sufficiently simple to document that fact. As it is, the reader is left with only elementary project descriptions and tabulated null impacts.

APU Assumptions: APU emissions, particularly as related to PM, are discussed extensively in the cited Master Plan reference letters and those comments apply equally to the SAIP. However, Tables K-10 and K-11 of DEIR Appendix K respectively list the APU assumptions used for the 2003 and 2005 air quality analyses, and a cursory comparison of the tables indicates differences

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between 2003 and 2005 APU assumptions, even though the DEIR implies that such differences should not exist. For example, in Table K-10 (1 of 10), the following APU assumptions are indicated for 2003:

Airframe	APU	Operating Minutes per LTO
Airbus A300B	GTCP 660	15
Airbus A300-C4-200	GTCP 660	15
Airbus A310	GTCP 85	15

In Table K-11 (1 of 10), the corresponding APU assumptions indicated for 2005 are:

Airframe	APU	Operating Minutes per LTO
Airbus A300B	GTCP 660	7
Airbus A300-C4-200	None	
Airbus A310	None	

The DEIR should clarify these and any other inconsistencies.

Cumulative PM Impacts Do Not Meet CAAQS/NAAQs: As with the LAX Master Plan, cumulative PM-10 impacts result in continuing violations of the CAAQS. CAAQS violations occur even with all indicated mitigation measures in place. Additionally, violations of both the CAAQS and the NAAQS occur for mitigated PM-2.5. This is particularly important since PM-2.5 impacts were not estimated in the Master Plan FEIR/FEIS. Nevertheless, the significance of SAIP PM-2.5 impacts clearly demonstrates that the PM-2.5 impacts of the overarching Master Plan would be equally (if not more) significant.

Respectfully Submitted September 13, 2005,

Daniel J. Meszler, P.E.

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**PRELIMINARY REVIEW OF HYDROLOGY,
WATER QUALITY
AND HUMAN HEALTH RISK ASSESSMENTS
PROVIDED IN THE SAIP DRAFT EIR**

Prepared
August 31, 2005

Submitted By:



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ATTACHMENT 2

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**PRELIMINARY REVIEW OF HYDROLOGY, WATER QUALITY
AND HUMAN HEALTH RISK ASSESSMENTS PROVIDED IN THE SAIP DRAFT EIR**

Introduction and General Comments

A.C. Lazzaretto & Associates has been retained by the Los Angeles County Chief Administrative Office to review and comment on certain portions of the Draft Environmental Impact Report (Draft EIR) prepared for City of Los Angeles - Los Angeles World Airport's (LAWA) proposed South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). Specifically, our review has focused on the adequacy of the EIR review of Hydrology, Water Quality and Drainage with respect to the County's facilities and permit requirements, and on the adequacy of the Ambient Air Quality Human Health Risk Assessment with respect to potential public health effects that may impact County residents living in the vicinity of LAX.

The comments presented herein should be considered in the context of the full record of County comments on the LAX Master Plan CEQA and NEPA documents. The full record includes (1) a detailed formal comment letter on the initial Draft EIR/EIR released in 2001; (2) a detailed formal comment letter on the Supplement to the Draft EIS/EIR released in 2003; (3) a detailed formal comment letter on the Final EIS/EIR released in 2004; and (4) a detailed formal comment letter on the Consensus Plan and Alternative E that was submitted to LAWA in 2004.

As a threshold issue, a consistent and central theme of the County's prior reviews has been that LAWA has failed to present a fully reasoned, thoughtful and straightforward examination of the potential impacts of the proposed Master Plan project. A similar pattern is somewhat evident in the current SAIP Draft EIR.

Our concerns have not been allayed by information provided in the Draft EIR about the SAIP, the design of which was substantially modified after certification of the Final Master Plan EIR. A close review of LAX Master Plan CEQA documents over the past 5 years confirms the reality that the adopted Master Plan improvement project and proposed South Airfield improvements will:

- Facilitate unconstrained growth at LAX;
- Ineffectively serve stated security goals;
- Inward the underlying goals and objectives of CEQA;
- Place a low priority on phasing of environmental and congestion improvements;
- Further erode environmental justice for residents of neighboring communities;
- Further weaken interagency communication and trust;
- Undermine the impetus for expanded regional air transportation; and
- Codify misleading baseline assumptions concerning noise, air quality and human health

Hydrology and Water Quality Concerns

1. The Certified Master Plan Final EIR Presented Misleading Conclusions Concerning Hydrologic Impacts on Dominguez Channel

The 2004 LAX Master Plan Final EIR indicated that impacts on Dominguez Channel would be significantly lower -- for all four studied alternatives -- than now presented in the SAIP Draft EIR. The Final EIR indicated that the Master Plan reduction in permeable area in the Dominguez Channel would range from a high of 7% (for Alternative C) to a low of 3% for the proposed Alternative D. Even at these levels, the Final EIR acknowledged potentially significant adverse cumulative impacts on regional drainage facilities.

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Ironically, the Draft EIR for the newly modified SAIP would significantly increase the impact on Dominguez Channel relative to Findings contained in the Final EIR. Whereas the Final Master Plan EIR forecast a 3% reduction in permeable area for the preferred Alternative D, the SAIP would reduce permeable area by an estimated 14%. The new estimate represents twice the level of the highest-impact alternative previously studied, and more than triple the impact of the preferred Alternative D as presented in the Master Plan EIR. This is a direct contravention of CEQA, which requires that Lead Agencies utilize project alternatives to minimize or avoid significant impacts.

2. The Significant Adverse Direct and Cumulative Impacts on Dominguez Channel Can and Should be Mitigated by LAWA

The Draft SAIP EIR notes, in §4.1.7, "There are currently capacity constraints within the Dominguez Channel Watershed, especially at the point where the Dominguez subbasin drains into a Los Angeles County conveyance facility that was designed for a 10-year storm event. Although the SAIP would be designed to address flooding within the boundaries of the project study area, increased surface water runoff and peak flows resulting from the project, in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by the regional drainage infrastructure serving the Dominguez Channel watershed." The EIR then finds, in §4.1.9, that implementation of Mitigation Measure HWQ-1 under the LAX Master Plan¹ would mitigate this impact but, "...because this mitigation measure is not fully within the jurisdiction of the lead agency to implement, the implementation of the mitigation cannot be guaranteed and therefore, the cumulative impact is considered to be potentially significant and unavoidable."

A review of the recommended drainage and water quality improvements provided in the Concept Drainage Plan provided in Appendix A indicates that LAWA has not fulfilled its commitment to identify "the overall improvements necessary to provide adequate drainage capacity to prevent flooding." Though significantly weighted toward the water quality review (compared with the drainage plan components), the CDP fails to take advantage of one obvious means of providing enhanced flood protection: the utilization of its water quality detention facilities to provide sustained storm water retention. Whether through this and/or other means, the County requests that LAWA provide on-site stormwater retention facilities with capacity sufficient to contain all flows that would exceed the residual (unused) capacity of the downgradient storm drain system.

¹ Mitigation Measure HWQ-1 is as follows: "MM-HWQ-1. Upgrade Regional Drainage Facilities. This mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development." Commitment HWQ-1 is as follows: "HWQ-1. Concept Drainage Plan. This LAX Master Plan commitment requires the preparation of a Conceptual Drainage Plan (CDP) that identifies the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The CDP will provide the basis and specifications by which detailed drainage improvement plans shall be designed in conjunction with site engineering specific to each LAX Master Plan project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water. In accordance with this commitment, LAWA will prepare SUSMPs for individual LAX Master Plan projects. The overall result of LAX Master Plan Commitment HWQ-1 will be a drainage infrastructure that provides adequate drainage capacity to prevent flooding with the potential to harm people or damage property and to control peak flow discharges, and that incorporates BMPs to minimize the effect of airport operations on surface water quality and prevent a net increase of pollutant loads to receiving water bodies."

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3. The SAIP Project May Impact Groundwater Resources

LAX is located just north of one of three critical seawater barriers (the West Coast Basin Barrier) that prevent seawater intrusion into the Central and West Coast Basin groundwater resources.

Human Health Risk Assessment

1. The Human Health Risk Assessment Must Show the Geographic Distribution of Emissions and Adverse Health Effects.

In order to fully disclose impacts associated with air pollutant and TAC emissions, the EIR needs to show the geographic distribution of pollutants and resulting health risks.

2. The SAIP Draft EIR Must Fully Disclose Chronic & Acute Non-Cancer Health Effects.

CEQA requires disclosure of impacts in layman's terms. While the SAIP Draft EIR quantitatively expresses chronic and acute non-cancer risks as a measure of the hazards index, it does not describe those risks.

3. The Community of Lennox will be Disproportionately Impacted by SAIP Health Risks

A review of the SAIP project description and the alignment of aircraft take-off and landing patterns indicates that the health risk impacts associated with the project will primarily affect areas located to the east of the runways.

4. The EIR Fails to Disclose Environmental Justice Impacts

In 1999, Senate Bill 115 was passed making environmental justice a requirement of CEQA (PRC §.72000-72001). The analysis is intended to determine whether minority and low-income

LAX SAIP Review August 31, 2005 A. C. Lazzaretto & Associates

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communities are unfairly burdened by project impacts, with the goal of using mitigation measures to create a level playing field. Despite this requirement, the EIR did not include an analysis of impacts on minority and low-income communities to determine whether they are unfairly burdened by project impacts, particularly those associated with Human Health Risk.

5. LAWA Must Provide Mitigation for Health Risks to the Maximum Extent Feasible

Because health risks dramatically and permanently diminish the quality of life (including premature death) of the impacted population, LAWA must commit to mitigating these impacts to the maximum extent feasible.

Closing Comments

As emphasized in prior comment letters, the County has a special responsibility in this process, since it represents the unincorporated communities that are most directly impacted by LAX operations.

LAX SAIP Review August 31, 2005 A. C. Lazzaretto & Associates

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SHUTE, MIHALY & WEINBERGER LLP ATTORNEYS AT LAW

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September 14, 2005

AMY J. BRICKER JENNY K. HARBINE MADELINE O. STONE GABRIEL H. S. ROSS DEBORAH L. KEETH WINTER KING ** LAUREL L. IMPETT, AICP CARMEN J. BORG URBAN PLANNERS DAVID NAWI ANDREW W. SCHWARTZ OF COUNSEL ** NOT LICENSED IN CALIFORNIA

Karen Hoo Los Angeles World Airports City of Los Angeles 7301 World Way West, Rm. 308 Los Angeles, CA 90045

Re: Project-Level Tiered Draft Environmental Impact Report for the South Airfield Improvement Project at Los Angeles International Airport, State Clearinghouse No. 2004081039.

Dear Ms. Hoo:

On behalf of the City of El Segundo, we have reviewed the August 2005 Project-Level Tiered Draft Environmental Impact Report for the proposed South Airfield Improvement Project (the "SAIP DEIR" or "DEIR").

The South Airfield Improvement Project ("SAIP" or "Project") is the first project to be pursued by Los Angeles World Airports ("LAWA") under the Master Plan devised for Los Angeles International Airport ("LAX").

Tiering is thus intended to be a means of avoiding redundancy. The SAIP DEIR, however, uses the concept as a justification for persistent flaws and omissions in its analysis and mitigation.

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even purport to analyze the Project's operational impacts following construction. Instead it relies exclusively on the program-level analysis set forth in the MPEIR.

In a similar fashion, the DEIR attempts to use the MPEIR's analysis of several large-scale, conceptual airport plans as an excuse for its refusal to consider any alternate means of achieving the safety improvements at the heart of the SAIP.

Moreover, even when the DEIR does discuss the SAIP's specific impacts, it repeatedly makes unsupported conclusions that the impact will be insignificant, or that vague and unenforceable mitigation measures will somehow reduce those impacts to less than significant levels.

As a result of the DEIR's inadequacies, there can be no meaningful public review of the Project's environmental impacts. CEQA accordingly requires LAWA to prepare and recirculate a revised DEIR to permit a complete understanding of the environmental issues at stake.

1 Because this approach, of necessity, incorporates all of the MPEIR's flaws into the instant DEIR, we incorporate by reference here all of our comments (including exhibits) on the MPEIR into this letter.

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I. THE SAIP DEIR'S CONFUSING ORGANIZATION AND EXCESSIVE RELIANCE ON THE MPEIR PRECLUDES MEANINGFUL REVIEW.

With this document, LAWA has continued the strategy it has pursued throughout the Master Plan process: burying the significant environmental impacts of its massive proposed projects, along with anyone who seeks to understand those impacts, under mountains of paper.

Throughout the DEIR, the reader is referred to the MPEIR for descriptions of mitigation measures or explanations of methodology. To some extent, such incorporation by reference is legitimate and inherent in the tiering process. However, the SAIP DEIR routinely includes citations that refer only to an entire chapter or lengthy appendix, which may be hundreds of pages long and in the midst of a document of over ten thousand pages. The reader is thus left unaided to find his or her own way to the referenced information. Moreover, in many cases, the MPEIR information referenced in the SAIP DEIR is neither summarized nor explained, and is thus incomprehensible to the lay reader.

This is not merely a complaint about writing styles. The SAIP DEIR's incomprehensibility undermines its ability to fulfill CEQA's fundamental purpose. An EIR is meant to be an informational document, a means of "inform[ing] the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

A DEIR can only fulfill this role if it is comprehensible to the public. And to be comprehensible, the SAIP DEIR must, at the very least, summarize and specifically describe critical information from the earlier document that it incorporates. As the CEQA Guidelines expressly provide in the analogous context of incorporation by reference of outside documents, "[i]ncorporation by reference is most appropriate for including long, descriptive, or technical materials that . . . do not contribute directly to the analysis of the problem at hand." CEQA Guidelines § 15150(f); *Emmington v. Solano County* (1987) 195 Cal.App.3d 491, 502-03 (outside reports do not support environmental document where they are not adequately summarized and analyzed). Accordingly, to fulfill its critical informational role, the SAIP DEIR must be revised to be comprehensible to the lay public.

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II. THE SAIP DEIR PROVIDES AN IMPERMISSIBLY TRUNCATED OBJECTIVE FOR THE PROJECT.

The definition of a project's purpose and objectives lays the foundation for the entire EIR. Analyzing and disclosing a project's impacts is essentially meaningless unless it is done with a view to understanding how well the project achieves its objectives, and whether that achievement is worth the environmental and other costs. Perhaps most importantly, as discussed below, an EIR cannot provide a meaningful comparison between the project and various alternative courses of action unless the project's objectives are defined broadly enough to make such alternatives at least potentially possible. *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App.3d 692, 735-37; *City of Santee v. County of San Diego* (1989) 214 Cal. App. 3d 1438, 1455

The SAIP DEIR disregards this foundational aspect of CEQA and instead articulates an objective for the Project so narrow that it skews all of the analysis that follows. The DEIR states that the Project's objective "is to implement the SAIP." In other words, the purpose of the Project is to implement the Project. This circular approach is, quite simply, absurd. By choosing the narrowest possible Project objective, LAWA has effectively declared, in the preliminary sections of the DEIR, that the Project will be approved, regardless of the results of the analysis that follows. A project objective that may only be satisfied by the proposed Project has engendered a DEIR that is absolute in its preference for that proposal. Rather than providing the required reasoned, objective analysis, the DEIR has become "nothing more than [a] *post hoc* rationalization[]" for a decision already made. *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 394.

Accordingly, the DEIR must be revised to set forth a proper Project objective that permits meaningful consideration of alternatives. Other parts of the present document suggest that the Project's true goal is improving safety by decreasing the number of runway incursions that occur on Runway 25R. *E.g.*, SAIP DEIR at II-2 ("[A] primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions."); SAIP DEIR, Appx. B at 3 ("reducing or eliminating the risk of runway incursions on the south airfield at LAX, while maintaining airfield efficiency and being cost-effective"); *see, e.g., Save the Niobara River Ass'n v. Andrus* (D. Neb. 1979) (project's true purpose was to provide economic stimulus to region, not to add irrigation). Accordingly, we will assume for purposes of our comments that *effectively* reducing the risk of runway incursions is LAWA's true Project objective.

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Restating the Project objective in these terms is particularly revealing here. As the documents referenced in the DEIR itself underscore, there is little or no evidence that the massive \$300 million SAIP will effectively reduce runway incursions. Indeed, as explained below and in the attached memorandum from Professor Adib Kanafani, the Project does nothing to directly address the primary cause of runway incursions, which is human error. *See* September 14, 2005 memorandum from Professor Adib Kanafani to Robert Perlmutter ("Kanafani Memorandum"), attached hereto as Exhibit 2. This point is further detailed in a report on the SAIP DEIR being submitted by Palos Verdes Estates Mayor A. Dwight Abbott. *See* A. Dwight Abbott, *Don't Move LAX Runway 25L-7R*. Moreover, the only actual study that the DEIR cites to support the Project's efficacy in fact suggests that the risk of runway incursion is *slightly greater* with the proposed Project than without. *Id.*; NASA Future Flight Central (2003), *Los Angeles International Airport Runway Incursion Studies, Phase III—Center Taxiway Simulation* at p. 16.

A properly stated Project objective would therefore force decisionmakers to confront whether this Project's nonexistent to marginal benefits are worth its tremendous environmental and economic costs. And, in keeping with CEQA's central purpose, it would allow members of the public to scrutinize that decision and hold their elected officials accountable. By contrast, the DEIR's impermissibly narrow Project objective misleads the public and decisionmakers into thinking that the SAIP will fully achieve its legitimate objectives. (By definition, only the SAIP can "implement the SAIP.") It thereby impermissibly allows LAWA to duck public scrutiny on this critical issue. Revising the Project's stated goal will not by itself reverse this inadequacy, but it is a necessary first step.

III. THE SAIP DEIR IMPERMISSIBLY USES A 1996 BASELINE TO MEASURE NOISE AND AIR QUALITY IMPACTS.

A particularly glaring inadequacy of the SAIP DEIR is its use of an improper environmental baseline to assess the Project's post-construction operational impacts. Every EIR's analysis of a project's environmental effects must begin with the description of the environmental conditions immediately before the project, i.e., the baseline. Investigating and reporting baseline conditions is "a crucial function of the EIR." *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal. App. 4th 99, 122. "[W]ithout such a description, analysis of impacts, mitigation measures and project alternatives becomes impossible." *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 953. Decisionmakers must be able to weigh the project's effects against "real conditions on the ground." *City of Carmel-by-the-Sea v. Board of Supervisors* (1986) 183 Cal. App. 3d 229, 246. "Because the chief purpose of the EIR is to

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provide detailed information regarding the significant environmental effects of the proposed project on the physical conditions which exist within the area, it follows that the existing conditions must be determined." *Save Our Peninsula Committee*, 87 Cal. App. 4th at 120 (internal quotation marks omitted).

CEQA thus provides that the proper date for establishing the baseline is "the time the notice of preparation ["NOP"] is published." CEQA Guidelines § 15126.2(a). Here, the NOP for the SAIP EIR was published on August 5, 2004. Accordingly, the proper date for establishing on-the-ground conditions for the DEIR is August 5, 2004. While the DEIR at least pays lip service to this requirement in assessing the Project's construction impacts and operational impacts during the construction period,² it inexplicably ignores this requirement with respect to the Project's post-construction operational impacts.

Indeed, the SAIP DEIR does not analyze the Project's post-construction operational impacts against *any* baseline. Instead, it simply adopts, without any meaningful explanation, the analysis of the operational noise and air quality impacts that were presented in the Master Plan EIR. The MPEIR, in turn, compares the SAIP's impacts not to actual conditions on the ground, but to conditions as they existed in 1996, almost a decade ago. Through this sleight of hand, the SAIP DEIR effectively reports impacts that are dramatically smaller than the Project's real effects. Regardless of whether 1996 was an appropriate baseline for the Master Plan EIR (and we continue to maintain that it was not), using it for environmental review of the SAIP in 2005 plainly violates the Guidelines' requirement that environmental effects be measured against the conditions obtaining at the time of the NOP. Using a 2003 baseline for construction impacts but a 1996 baseline for post-construction operational impacts is entirely arbitrary and improper.

The SAIP DEIR's flaw in this regard is not merely formal. Using the 1996 baseline instead of the mandated 2004 baseline significantly skews the document's analysis of post-construction operational noise and air quality impacts. As the SAIP DEIR itself acknowledges, the annual number of operations at LAX has fallen dramatically since 1996. Table 3-2, SAIP DEIR at III-17. In 1996, with many more operations, the airport was noisier and air quality was worse than in 2003. Setting the baseline at 1996 thus minimizes the change caused by the SAIP and leads the SAIP DEIR to greatly understate the significance of

² For the construction-period impacts, the DEIR uses a 2003 baseline. Using a 2003 baseline for construction impacts, however, is also improper. A 2004 baseline should have been used. At the very least, the DEIR should provide evidence verifying that conditions in 2003 were comparable to those in 2004.

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its actual impacts. It also misleads the public and decisionmakers by suggesting that the SAIP and/or the Master Plan is responsible for the decline in noise and air quality impacts, when in fact this decline has nothing to do with either the Master Plan or the SAIP.

As just one example of this distortion, the table below compares the change in noise impacts in terms of total impacted acres, dwelling units, population, and sensitive land uses, using the two baselines. As it shows, using the older, improper baselines paints a falsely rosy picture of the Project's noise impacts.

Table 1: Comparison of Noise Impacts Using Erroneous 1996 Baseline and Updated 2003 Baseline

Year	Off-Airport Area(acres)	Dwellings	Estimated Population	Non-residential sensitive uses
	Total within 65 CNEL contour			
1996 (MPEIR 4-32)	3412	16900	49000	74
2003 (SAIP DEIR IV-160)	2742	13091	42308	53
2015 + Project (MPEIR 4-89)	2870	13520	42980	69
Impacts as estimated by SAIP DEIR (change from 1996 to 2015)	-542	-3380	-6020	-5
Impacts using legally appropriate baseline (change from 2003 to 2015)	128	429	672	16

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As the Master Plan EIR touts on several occasions, comparing the operation noise impacts of Alternative D to the 1996 baseline yields a net reduction in noise impacts. *E.g.*, MPEIR at 4-90, 4-303. By contrast, as Table 1 shows, comparing the 2015 noise effects with the legally-required baseline shows a totally different picture: between 2003 and 2015, net impacts will increase.³ The comparison shown in Table 1 is just one noise impact. It could be repeated for all of the various aircraft noise impacts caused by the SAIP—newly-exposed homes, single noise event impacts, and so on—as well as air quality impacts. In each instance, using the MPEIR's 1996 baseline understates the impacts of the changes proposed for the southern airfield. Although the MPEIR determined that there were significant impacts, its calculation of the scale of those impacts was wholly inadequate.

Indeed, the SAIP DEIR elsewhere acknowledges the difference that a shifting baseline makes. Specifically, in analyzing human health risks, the SAIP DEIR recognizes that the increment between projected 2005 Project conditions and a 2003 baseline is "roughly an order of magnitude greater" than that between 2005 no-project conditions and the 1996 baseline. SAIP DEIR at L-1. "[A]dditional analysis," using the 2003 baseline, was therefore needed "to ensure full disclosure of the potential health impacts of the SAIP." DEIR at L-1. The air quality and noise baselines could and should have been handled in the same manner as human health risks, but the DEIR never explains why the human health risk analysis was updated while others were left with the outdated baseline. What is true for the human health risk assessment must be true of all of the required impact analyses: to properly capture the environmental changes over actual conditions brought on by the SAIP, the DEIR must compare the Project's effects to the environment as it now exists. In the words of the DEIR itself, only by doing so can that document "ensure full disclosure of the of the potential [] impacts of the SAIP." *Id.*

It is no answer to claim that the DEIR is tiered from the Master Plan EIR and may therefore rely upon the earlier document's analysis. Invocation of the term "tiering" does not give a lead agency license to present inadequate, outdated analysis of a proposed project's environmental effects. Indeed, the DEIR effectively concedes as much by using a partially updated 2003 baseline to analyze construction impacts and human health risk. Its arbitrary refusal to do so for the Project's operational impacts violates CEQA.

³This switch from net reductions to net increases shows the essential problem with using the older baseline. Starting from 1996 conditions, the DEIR projects that by 2015, the airport will grow quieter. But in 2003, the airport was *already* quieter than the 2015 projections. As Table 1 shows, noise impacts are only getting worse from here, regardless of what has happened between 1996 and the present day. It is thus simply arbitrary to use the older baseline.

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Similarly, LAWA's purported justification for relying on a 1996 baseline in the Master Plan EIR is even more unfounded here.⁴ When it certified the MPEIR in 2004, LAWA declined to present 2003 data for comparison purposes, claiming that the "events of September 11th [2001] substantially altered the nature and characteristics of operations at LAX." MPEIR at 4-7. Even assuming, arguendo, that this justification would have been permissible in the immediate aftermath of September 11th, it cannot excuse the SAIP DEIR's failure to use the 2003 baseline now. First, as noted above, several sections of the DEIR do use 2003 as a baseline, undermining any argument that it is inappropriate.

Second, given that four years have passed since September 11th, and that the DEIR itself reports that passenger volumes and total operations continued to decline through the end of the 2003 period shown in the DEIR (SAIP DEIR at III-17 to -18), these declines cannot credibly be characterized as a temporary phenomenon caused by September 11th. Instead, they represent the actual on-the-ground baseline conditions against which the SAIP's actual impacts must be measured.

In response to comments on the MPEIR, LAWA also attempted to support using the 1996 baseline by claiming that, generally speaking and looking at the entire airport area as a whole, noise conditions in 2000 were just as bad as in 1996. However, this generalization masks significant changes in El Segundo between 1996 and the present. For instance, the MPEIR's own noise contour maps reveal that the noise impacts to El Segundo were considerably worse in 1996 than in 2000 (*i.e.*, the noise contours shifted inward towards the airport between 1996 and 2000 as Stage 2 aircraft were phased out under federal requirements). Accordingly, the fact that noise impacts from LAX have allegedly grown more severe elsewhere since 1996 cannot possibly justify relying on the demonstrably erroneous 1996 baseline to analyze the impacts on El Segundo residents. Doing so simply ignores the actual existing noise environment in El Segundo.

In short, CEQA requires that the public and decisionmakers be made aware of the changes that a Project will cause. Those changes are experienced as compared to the present environment. If the airport has become quieter in the years since 1996 (or since 9/11/2001), then the noise impacts of the SAIP will be felt by residents as the airport growing louder. Masking the significance of the Project's impacts by using the 1996 baseline renders the SAIP DEIR useless as an informational document and legally inadequate.

⁴El Segundo extensively commented on the impropriety of using the 1996 baseline for the MPEIR and, as noted above, we incorporate those comments by reference here.

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IV. THE SAIP DEIR CONTINUES TO UNDERESTIMATE CAPACITY AND THEREFORE PROVIDES AN INADEQUATE PROJECT DESCRIPTION.

Like the MPEIR upon which it relies, the SAIP DEIR is built upon the erroneous premise that the Master Plan Alternative D would serve no more than 78.9 Million Annual Passengers ("MAP"). As detailed in our prior comments, however, the available evidence demonstrates that, under LAWA's own assumptions, Alternative D will actually serve approximately 87 MAP. *See, e.g.*, November 4, 2003 Comments, Ex. 7; December 1, 2004 Comments, Exhibit A. As a result, the SAIP DEIR continues to inadequately describe the Project whose impacts it purports to analyze.

In a similar fashion, the SAIP DEIR continues to improperly rely on a 2015 horizon year for analyzing the Project's impacts. As detailed in our prior comment letters, this approach necessarily overlooks numerous foreseeable impacts of the Project. It also ignores the fact that both the FAA and the Southern California Association of Governments call for 20-year planning horizons for large-scale projects such as this.

Accordingly, to accurately analyze the impacts of the present Project, the SAIP DEIR must first be revised both to accurately disclose the Project's full capacity as 87 MAP and to reflect the appropriate 20-year planning horizon. The SAIP must then be further revised to identify, disclose, and analyze the additional impacts that flow from such a corrected project description.

V. THE SAIP DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S SIGNIFICANT ENVIRONMENTAL IMPACTS.

A. The SAIP DEIR Fails to Adequately Analyze and Mitigate the Project's Noise Impacts.

The SAIP will generate three distinct categories of noise impacts: (1) construction equipment noise; (2) aircraft noise during construction, the distribution of which is largely determined by the shifting air and ground traffic patterns required by the temporary closure of Runway 7L/25R; and (3) post-construction aircraft noise. The DEIR's analysis of and mitigation for each of these noise sources is flawed. El Segundo's primary comments on these failings are contained in the reports from Aviation Systems, Inc. ("Aviation Systems Report") and Wieland Associates, Inc. ("Wieland Report"), attached as Exhibits 3 and 4, respectively. Below is a brief summary of the issues raised in these reports.

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1. The SAIP DEIR's Analysis of Construction Noise is Inadequate.

The DEIR's analysis of construction noise impacts is riddled with errors and critical omissions, which are fully described in the attached Wieland Report.

A few of the most troubling errors are briefly reviewed here. First, the DEIR simply fails to disclose several significant construction noise impacts. For instance, the Project's construction equipment noise, if properly calculated with sound attenuation factors appropriate to conditions at the Project site, represents at least an 8 dBA increase over existing ambient noise. Because the DEIR's significance threshold defines an effect as significant if it causes an increase of 5 dBA or more, this construction equipment noise must be disclosed and mitigated as a significant impact.

Second, even this 8dBA increase underestimates total construction noise because it does not include *any* noise from construction traffic. The DEIR inexplicably separates its analyses of construction traffic noise from the noise generated by construction activities on the Project site. In reality, however, both of these noise sources will contribute to neighbors' sound environment. Accordingly, their impacts must be considered together. To undertake this analysis, the DEIR must first be revised to actually quantify construction traffic noise. At present, the document only quantifies traffic volumes. See SAIP DEIR at IV-225. This technique wholly fails to disclose the noise associated with those traffic volumes. This technique also ignores the fact that the bulk of the increase in construction traffic will be heavy trucks, which generate significantly more noise than other vehicle types. Accordingly, the DEIR must be revised to include an actual noise analysis of construction traffic, which must account for the elevated noise levels from heavy truck traffic.

Third, CEQA requires that an EIR identify feasible mitigation measures that will minimize or avoid the significant impacts of a project. CEQA Guidelines § 15126.4(a). The SAIP DEIR fails to follow this mandate with regard to the Project's construction noise impacts. Instead of actually identifying mitigation measures, the DEIR merely promises that measures will be identified at some later time: "A Construction Noise Control Plan will be prepared . . ." SAIP DEIR at IV-187. This approach to mitigation plainly violates CEQA. The DEIR must identify concrete mitigation measures prior to Project approval; it may not defer their formulation. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."); see also *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal. App. 3d 61, 79-80; *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359, 1396; *Sundstrom v. Mendocino County* (1988) 202 Cal. App. 3d 296, 307 ("The requirement that

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omitted). Looking at the SAIP DEIR's figures, a person who lives inside the 94 dBA SEL contour would have no way of knowing how frequently he or she would actually be exposed to single noise events of 94 dBA or higher. Presumably, the residents deep inside the contour line—close to the airport—will experience very loud events even more often than one in ten days. The SAIP DEIR's analysis does not provide the necessary information to enable someone residing within the contour to determine what this frequency and intensity would be.

Furthermore, many people outside the contour will be awoken regularly, but they receive no information whatsoever about their exposure to very loud single events. They have been excluded by the DEIR's arbitrary choice to consider only events that would wake 10% of the population. As discussed below and in the Aviation Systems Report, the conclusion that 94 dBA SEL will wake 10% of the population is drawn from a study that by its own terms should not be used in this manner. Moreover, neither the SAIP DEIR nor the sections of the MPEIR to which it refers offer any rationale for selecting 10% awakenings as the single data point to report, let alone the substantial evidence that CEQA requires to support a significance threshold. *Nat'l Parks & Conservation Ass'n v. County of Riverside* (1999) 71 Cal. App. 4th 1341, 1357. This decision, like the choice to provide only a single contour line, deprives residents of the information mandated under *Berkeley Jets*.

The DEIR fares no better at fulfilling the other half of the *Berkeley Jets* mandate: "describ[ing] the effects of noise on normal nighttime activities, such as sleep" *Berkeley Jets*, 91 Cal. App. 4th at 1355. The DEIR's single-event noise measurement is based on "Effects of Aviation Noise on Awakenings from Sleep, a 1997 report prepared by the Federal Interagency Committee on Aviation Noise ("FICAN Report") (attached as Exhibit 5), which presented a dose-response curve to predict the percentage of people who would be awakened at various SELs. See MPEIR, Appx. S-C1. The FICAN Report itself repeatedly recognizes that it has numerous analytical limitations. In particular, its findings only describe the responses of adults to single noise events. FICAN Report at 7. Full disclosure of environmental impacts certainly requires analyzing the effects of single events on children, who may be more vulnerable to awakening, and whose health may be more affected by it. The DEIR fails to analyze and disclose these potentially significant effects.

Furthermore, the study's findings only track those events that fully awaken a person. However, "[s]leep disturbance also can be defined as *arousals* or *gross bodily movement* . . . which may or may not result in actual awakenings." FICAN Report at 3. If, as seems likely, such sub-awakening arousals affect health by depriving people of full sleep, then a threshold of significance based only on full awakening does not present a complete

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the applicant adopt mitigation measures recommended in a future study is in direct conflict with the guidelines implementing CEQA."). Moreover, it is impossible to tell from the DEIR which mitigation measures will actually be adopted. Obscuring the mitigation in this way defeats the purpose of CEQA, which is to expose such decisionmaking to public scrutiny and participation.

Despite the vague, deferred nature of this mitigation, the noise analysis assumes that certain measures, such as the hourly activity factors of Table 4.5-24, will be implemented. This mitigation has not been adopted—in fact, the DEIR itself says that it "may be" a part of the Construction Noise Control Plan. SAIP DEIR at IV-188. It is thus wholly inappropriate to include it in the noise calculations. Furthermore, even if the EIR actually adopted the measure as stated, it would be insufficient to support the determination that construction noise impacts would be less than significant, because the measure, like the rest of the construction noise measures, is unenforceable. Mitigation measures must be more than mere suggestions; they must be concrete and enforceable.

2. The SAIP DEIR's Analysis of Construction-Period Aircraft Noise Fails to Meet the Requirements of CEQA and Berkeley Jets Because It Uses an Inadequate Measure of Single-Event Noise Impacts

A key aspect of an airport's environmental impacts is the effect of single, very loud events on people in their homes, especially at night. To meet CEQA's requirement of full disclosure of environmental impacts, an EIR must "measure how many high-noise events will take place during the noise-sensitive nighttime hours [and] describe the effects of noise on normal nighttime activities, such as sleep." *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal. App. 4th 1344, 1355. The SAIP DEIR fails to meet either element of this requirement.

First, the DEIR does not include sufficient information about the frequency of high-noise events. The DEIR's single-event noise analysis starts with the idea that an outside single-event sound exposure level ("SEL") of 94 dBA will awaken 10% of the exposed population. SAIP DEIR at IV-154-55. It then generates a contour line on a map, enclosing all points exposed to 94 dBA SEL at least once every ten days. SAIP DEIR at IV-183, 209. Although this convoluted series of calculations produces a contour line that technically includes information regarding the frequency of high-noise events and the effect of those events on sleep, compressing all of that data into a single statistic defeats the essential purpose of the *Berkeley Jets* standard: "enabl[ing] nearby residents to understand how the [Project] will affect their lives." *Berkeley Jets*, 91 Cal. App. 4th at 1377 (quotation marks

picture of noise impact. By relying on this threshold, the DEIR fails to fully disclose the Project's significant environmental impacts.

3. The SAIP DEIR Measures Construction-Period Aircraft Noise Impacts Against an Inadequate Threshold of Significance.

Each of the thresholds used to measure ambient noise impacts from aircraft during the SAIP construction period only considers properties to be significantly impacted if they are subjected to noise of 65 dBA CNEL or higher. By the DEIR's reckoning, any home whose environment is quieter than 65 dBA CNEL is not significantly impacted, no matter how much noise the SAIP has added. As detailed in the Aviation Systems Report, 65 dBA CNEL is an outdated threshold. Research over the last two decades has shown that noise levels quieter than 65 dBA CNEL can have tremendous impacts on people's lives. By relying on the 65 dBA CNEL threshold, the DEIR greatly understates the Project's significant impacts. Thousands more individuals and residences will suffer significant noise impacts from the Project than the DEIR reports. This failure to disclose the full impact of the SAIP "precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." *Berkeley Jets*, 91 Cal. App. 4th at 1355. It therefore renders the SAIP DEIR legally inadequate.

Moreover, as detailed in our November 4, 2003 Comments, the SAIP DEIR improperly continues to ignore the noise standards set forth in El Segundo's noise ordinance. Under the CEQA Guidelines, Appendix G, Section XI, a lead agency must consider whether a proposed project would generate noise, or expose persons to noise, in excess of local standards set forth in general plans and ordinances. El Segundo's general noise standards are set forth in its Noise Ordinance, section 7-2.4. For residential property, a noise exceeding five (5) dBA above the ambient noise level is prohibited; for commercial property, noise exceeding eight (8) dBA above ambient noise levels is prohibited. This standard is ignored by the Master Plan analysis upon which the SAIP DEIR relies.

4. The SAIP DEIR Completely Fails to Analyze the Post-Construction Operational Noise Impacts of the Project.

The SAIP DEIR's analysis of the noise impacts of the Project stops short at the end of the construction period. For all of the noise impacts of aircraft using the reconfigured airfield, the DEIR relies solely on the analysis presented in the MPEIR. The most glaring flaw in this approach is its use of a legally inadequate environmental baseline, as discussed

above. Furthermore, the MPEIR's analysis of the Project's noise impacts, incorporated by reference into the SAIP DEIR, suffers from many of the flaws identified here.⁵ For instance, like the SAIP DEIR's analysis of construction-period aircraft noise, the MPEIR's aircraft noise analysis fails to properly analyze single-event noise impacts and uses an arbitrary and outdated CNEL threshold.

Furthermore, the SAIP DEIR fails to consider the noise impacts of so-called New Large Aircraft. The Airbus A380, the largest commercial passenger aircraft in the world, will soon be a part of the fleet at LAX. At 200 feet wide, the reconfigured Runway 25L-7R will be the only runway at the airport able to accommodate the A380. This huge aircraft's presence will have potentially large impacts on the noise that the southern airfield produces. As detailed in the Aviation Systems Report, however, the MPEIR's noise analysis, and therefore the SAIP DEIR's, completely fails to account for this major new aircraft. Regardless of whether the MPEIR itself is rendered inadequate by its failure to account for the A380 (and we maintain that it is), this gap in its analysis means that the SAIP DEIR may not rely on the previous document. Once again, LAWA impermissibly invokes the tiering concept as if it gave the SAIP DEIR license to present inadequate, outdated analyses of the SAIP's environmental effects.

The imminent introduction of the A380 into the fleet at LAX represents important new information that renders the MPEIR's noise analysis inadequate for evaluating the SAIP. LAWA cannot now claim that determining the A-380s contribution to the Project's impacts would require speculation. The aircraft is now in production and could be tested to determine its noise attributes. See, e.g., "Superjumbo" A380 Lands Safely (April 28, 2005), in CNN.COM (attached hereto as Exhibit 6). It is LAWA's obligation to put forth its best efforts to gather all of the information needed to fully evaluate the Project's impacts, including the data needed to analyze and disclose the effects of the A380's use of Runway 25L. *Berkeley Jets*, 91 Cal. App. 4th at 1370-71 ("An agency must use its best efforts to find out and disclose all that it reasonably can.") (emphasis supplied by the court). These efforts include conducting a "thorough investigation." *Id.* To date, LAWA has made essentially no effort at all to present the required noise analysis of the A-380. Thus, the SAIP DEIR will remain inadequate until LAWA undertakes the thorough, good-faith effort to do so.

The SAIP's exclusive reliance on the MPEIR's post-construction noise impacts analysis violates CEQA for another reason as well. As detailed in our prior comments, the MPEIR fails to account for the fact that, under the so-called "Consensus Plan" approved by

⁵Other deficiencies in the MPEIR's analysis are detailed in our prior comments.

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the Los Angeles City Council, certain Master Plan projects have been "yellow-lighted." Contrary to the MPEIR's assumptions and analysis, these yellow-lighted projects will, in all likelihood, never be built.

Removing yellow-lighted projects from the Master Plan Project has serious environmental ramifications because the MPEIR, and thus by extension the SAIP DEIR, relies on many of the yellow-light projects to mitigate or avoid impacts in areas such as noise, traffic, and air quality. Because these impacts will no longer be mitigated or avoided, the SAIP DEIR must be revised to fully disclose what the SAIP's actual impacts will be in their absence.

For example, one of the yellow-lighted projects that is unlikely ever to proceed is the northern runway complex reconfiguration. LAWA relied on that configuration when it conducted the MPEIR's noise analyses, noting that reconfiguring the northern complex would help balance the southern runway complex reconfiguration and shift noisy heavy aircraft from the south to the north side of LAX. If the northern runway complex reconfiguration never occurs, these noisy aircraft will remain concentrated on LAX's south side. The resultant noise impacts will differ significantly from those disclosed in the MPEIR and now in the SAIP DEIR.

Nor is it possible, without further study, to discern the actual impacts of removing the yellow-lighted projects from the Master Plan, because the MPEIR document did not break down its analysis of noise impacts on a project-by-project basis. Thus, the degree of mitigation purportedly attributable to the yellow-lighted projects is impossible to determine.

5. The SAIP DEIR Must Consider Mitigating Operational Noise Impacts by Eliminating the Requirement that Homeowners Grant Avigation Easements in Exchange for Noise Insulation.

The SAIP DEIR, as discussed above, fails to analyze the operational noise impacts of the Project properly and must reevaluate those impacts using an updated environmental baseline. The DEIR is similarly obliged to identify and analyze all potentially feasible mitigation measures that will avoid or minimize the significant post-construction operational noise impacts of the SAIP. An EIR must discuss each feasible mitigation measure available to reduce or eliminate a given impact. CEQA Guidelines § 15126.4(a)(1)(B).

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LAWA's current mitigation for its noise impacts is centered on the Aircraft Noise Mitigation Program ("ANMP"), which funds programs in affected jurisdictions to provide residential sound insulation at no cost to property owners. The ANMP, however, has generally not been successful in bringing the airport's neighbors relief from its extraordinary noise impacts. As illustrated in Table 2 (attached hereto as Exhibit 7), over the last five years, the ANMP has barely made a dent in the number of homes subject to aircraft noise of 65 CNEL or higher. At the beginning of 1999, about 92% of impacted dwelling units had no sound insulation. By the middle of 2004, the ANMP had shrunk that figure only to 80%. This small improvement is cold comfort to the tens of thousands of people who are still exposed to aircraft noise in their own homes, day and night.

At least one feasible modification to the ANMP would greatly improve its efficacy as mitigation, and therefore must be considered in the DEIR. Currently, the ANMP requires that every homeowner accepting funding from LAWA for sound insulation—except those residing in the City of Inglewood⁶—grant LAWA an avigation easement over his or her home. The SAIP DEIR must consider amending the ANMP to eliminate this requirement for all affected residents. By granting such an easement, homeowners give up property rights in perpetuity. LAWA may thenceforth subject that property to any amount of noise and other aviation-related damages, and the property owner has no legal recourse. This required exchange is not only blatantly unfair to property owners, it impedes the effectiveness of the ANMP. The City of El Segundo does not accept LAWA funding for its sound insulation program precisely because the easement requirement is too onerous. El Segundo can thus provide only part (approximately 80%) of the cost of insulation using funds received from FAA, and property owners must pay the rest. It is likely that property owners in other jurisdictions are also unwilling to give up the rights that LAWA demands. Eliminating the easement requirement would bring many more homeowners into the reach of the ANMP and would increase the program's effectiveness at mitigating the SAIP's significant noise impacts.

LAWA's demonstrated ability to provide residential sound insulation to Inglewood residents without requiring an avigation easement shows, at the very least, that such a mitigation measure would be potentially feasible in other jurisdictions. The SAIP DEIR's failure even to analyze such a mitigation measure renders that document per se invalid. *Los Angeles Unified School District v. Los Angeles* (1998) 58 Cal. App. 4th 1019,

⁶In 2001 LAWA and the City of Inglewood entered a Memorandum of Understanding, attached to this letter as Exhibit 8, by which LAWA agreed to provide ANMP funding to Inglewood with no easement requirement.

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1029 ("LAUSD") (failure to meaningfully respond to proposed mitigation measures requires invalidation of EIR unless proposed measure is "facially infeasible").

Moreover, CEQA's substantive component mandates that the agency *must* adopt such a modified ANMP program for El Segundo and other jurisdictions if it plans to approve the SAIP. CEQA's core substantive component—with which every public agency must comply—requires that LAWA "shall mitigate or avoid the significant effects . . . of projects that it carries out or approves whenever it is feasible to do so." Pub. Res. Code § 21002.1(b) (emphasis added). Because LAWA has already demonstrated the feasibility of amending the ANMP program to eliminate the avigation easement requirement for Inglewood, it cannot in good faith maintain that such an amendment is infeasible elsewhere. Accordingly, if and when LAWA revises the SAIP DEIR to address its inadequacies, it cannot lawfully adopt the SAIP unless it first adopts a mitigation measure that amends the ANMP to eliminate the avigation easement requirement in all jurisdictions.

B. The SAIP DEIR Impermissibly Defers Mitigation for the Project's Construction-Period Air Quality Impacts.

As set forth in our September 9, 2005, letter requesting an extension of time to comment on the SAIP DEIR's air quality analysis, LAWA's delay in providing requested air quality data has largely precluded El Segundo from meaningfully commenting on this issue. Accordingly, El Segundo intends to submit more detailed comments on air quality within the requested time extension. Pending preparation of those comments, we will confine our remarks to the DEIR's blatant disregard for CEQA's requirement that an EIR must identify mitigation measures that avoid or minimize significant impacts. The SAIP DEIR identifies no specific mitigation for construction-period air quality impacts. Instead, it relies entirely on the menu of possible measures set forth in the MPEIR. The MPEIR's measures, however, are both incomplete and impermissibly deferred. By the MPEIR's own admission, it does not set forth a complete list of feasible construction mitigation measures. MPEIR at 4-725. Moreover, in its comments on that document, El Segundo identified many other feasible measures for reducing construction emissions.

Although the MPEIR promises that specific mitigation will be formulated "prior to commencement" of the SAIP, MPEIR at 4-724, the SAIP DEIR does not fulfill that promise. Instead, it merely repeats the impermissible deferral, stating that "[t]he specific means for implementing the mitigation measures described in section 4.3.5 are in the process of being formulated." SAIP DEIR at IV-121. The measures "described in section 4.3.5," are merely the MPEIR's laundry list, including the vague statement that "[o]ther feasible

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mitigation measures may be defined" later. Deferring mitigation in this manner is impermissible under CEQA. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."); *Sundstrom*, 202 Cal. App. 3d at 307 ("The requirement that the applicant adopt mitigation measures recommended in a future study is in direct conflict with the guidelines implementing CEQA.").

The DEIR compounds this flaw by taking credit for mitigation measures it has not actually adopted. Despite its failure to formulate concrete measures, the DEIR's quantification of air quality impacts assumes that several specific mitigation measures will be in place and that emissions will be accordingly reduced. SAIP DEIR at IV-114. This is totally inappropriate. The DEIR may only legitimately include in the impact calculations those measures that it has described concretely and adopted in such a way as to ensure their implementation and enforcement. CEQA requires that "feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." *Federation of Hillside & Canyon Ass'ns v. Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261-62 (vacating project approval because City failed to make "a binding commitment to implement the [traffic] mitigation measures . . . in a manner that will ensure their implementation") (emphases added); see also *Kings County*, 221 Cal. App. 3d at 729-30 (agency may not rely on mitigation measures of uncertain efficacy).

Furthermore, the DEIR's calculations use what appears to be an arbitrary mix of measures aimed at diesel generators. A third of the Project's generators are to be replaced with "electric generators," a third are to be run on clean diesel, and a third are to have clean diesel and particulate traps. SAIP DEIR at IV-114. Initially, it is unclear where the "electric generators" will be located, or even what an "electric generator" is. If this is supposed to mean that a third of the construction electricity demand is to be met with utility-delivered electricity (from power poles or underground lines), then it is unclear why LAWA would not mandate that the Project rely even more heavily on such power, which will not generate any emissions at the airport. Similarly, if the logistics of the construction site require the use of some diesel generators, then both clean-burning fuel and particulate traps should be required for all generators. The DEIR must identify and adopt the most effective feasible mitigation measures, and must explain the reasoning behind its choices.

C. The SAIP DEIR's Analysis of and Mitigation for the Project's Impacts on Water Quality and Hydrology are Inadequate.

The SAIP will increase the impervious ground in the Project area by a significant proportion: 26% in the Santa Monica Bay drainage area and 14% in the

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Dominguez Channel drainage area. This increase will, of course, bring about a similarly significant increase in stormwater runoff entering these two drainage systems, thereby exacerbating the risk of flooding and increasing pollution in these waters. Despite these real dangers, the DEIR fails to adequately analyze and mitigate the Project's impacts on hydrology and water quality.

1. The SAIP DEIR Erroneously Excludes Several Pollutants From Its Analysis of Water Quality Impacts.

The DEIR's analysis of the Project's impacts to water quality in Santa Monica and San Pedro Bays is incomplete because it ignores several pollutants that are likely to be present in stormwater runoff from the airport and therefore are likely to degrade water quality. Nineteen pollutants of concern have been identified for Santa Monica Bay. SAIP DEIR at IV-10. The DEIR nevertheless only analyzes the Project's discharges of ten of these pollutants, and ignores the other nine. It offers no data or reasoning to support this decision, merely stating conclusorily that the ten analyzed were chosen "based on the reasonable likelihood that they would be present in storm water runoff from LAX." SAIP DEIR at IV-10. The DEIR does not even list the nine ignored pollutants. By using this dismissive approach, the DEIR fails to fulfill its role as an informational document and violates CEQA. An "EIR must contain facts and analysis, not just the agency's bare conclusions or opinions." *Citizens of Goleta Valley*, 52 Cal. 3d at 568 (quotation marks omitted). To present an adequate analysis of water quality impacts, the DEIR must at the very least present the entire list of pollutants of concern and explain what factors were relied upon in deciding to exclude half of them.

Moreover, the DEIR's implied assertion that certain pollutants are unlikely to occur in stormwater runoff from the Project area is impossible to effectively evaluate in the absence of the underlying facts and reasoning. Even so, there is ample reason to believe that several substances were wrongly omitted from analysis. As detailed in the letter from Dr. Phyllis Fox submitted as Attachment D to our September 18, 2001 Comments, the omitted pollutants (DDT, chlordane, PCBs, polynuclear aromatic hydrocarbon, mercury, cadmium, chromium, nickel, and silver) should have been included in the analysis of the SAIP. The importance of analyzing those contaminants is discussed in detail in Dr. Fox's letter. See September 18, 2001 Comments, Attachment D at 14-17. Fully analyzing storm water impacts requires the DEIR to consider several pollutants—dioxins, furans, and pesticides—not on the initial list of nineteen. *Id.* at 13-14, 18. Until it is revised to analyze these pollutants, the SAIP DEIR will remain inadequate.

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2. The SAIP DEIR Fails to Adequately Disclose the Runoff Coefficient Used and the Amount of Stormwater Runoff Thereby Calculated.

The SAIP DEIR fails to provide the runoff coefficient used in its water quality analysis. To determine the amount of pollutants that the Project would contribute and the effectiveness of the proposed mitigation, the DEIR multiplies precipitation by the area of impervious surface in the Project area and a runoff coefficient. SAIP DEIR at IV-10 n.7. The runoff coefficient is crucial; it represents the proportion of the rain falling on impervious surfaces that will run off into the bay. But the SAIP DEIR never discloses what runoff coefficient it used. The Federal Highway Administration and the Los Angeles County Department of Public Works suggest different coefficients for use in this type of calculations, and the DEIR's choice of coefficient could have made a difference in the analysis. Table 4.1-4 reports that with the use of Best Management Practices, the airport's contributions of every pollutant will be reduced. However, several of these reductions—notably for bacterial pollutants and phosphorus discharges into the Dominguez Channel system—are quite small, and could very well turn out to be net increases in pollutant load if a different runoff coefficient were used.

In the past, LAWA has used the federal coefficients, which are generally lower than the County's and therefore minimize runoff and pollutant volume. This is an improper choice, however, because the county coefficients "more accurately capture[] local conditions unique to the desert environment." September 18, 2001 Comments, Attachment D at 18. Without any information as to the coefficient, however, it is impossible to tell whether this DEIR repeats that error. The public and decisionmakers are thus unable to independently and intelligently evaluate the stormwater runoff analysis, and this DEIR has failed them.

3. The SAIP DEIR Should Have Analyzed Flooding Impacts Using a More Severe Model Storm.

The SAIP DEIR's threshold of significance for flooding impacts states that the Project's impacts would be significant if the Project would lead to "[a]n increase in runoff that would cause or exacerbate flooding." SAIP DEIR at IV-21. In analyzing the capacity of the Dominguez Channel drainage system, however, the DEIR uses only a 25-year storm. This modeling decision effectively rewrites the threshold of significance such that flooding impacts are only considered significant if the Project would increase flooding during a 25-year storm. If the Project's drainage system could handle a 25-year event but would "cause

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or exacerbate" flooding during a larger storm, the DEIR would not consider flood impacts significant.

The DEIR provides no explanation for its use of a 25-year storm, rather than a more severe storm, for determining whether there will be significant flooding impacts to the Dominguez Channel system. Furthermore, the attributes of the model storm must be provided in the DEIR or in an appendix, to ensure that the model is up to date in an era of potentially rapid and major change in climate patterns. The 25-year storm of 2010 may be very different from the 25-year storm of 1999, and a DEIR must present the most accurate information available. Without more information concerning the model storm, it is impossible to tell whether this document fulfills that duty.

While a larger storm is less likely than the storm used in the DEIR calculations, its effects cannot be wholly ignored. The DEIR does just that—the damage potentially caused by flooding from a larger storm is completely discounted. This is especially disturbing because, as the DEIR acknowledges (SAIP DEIR at IV-33), even a 25-year storm is beyond the capacity of the Dominguez Channel system. The DEIR nonetheless insists that the impacts from such a storm will be confined to minor flooding on airport grounds. *Id.* Its conclusion that the impact is therefore less than significant is, however, left without support by its failure to provide the runoff coefficient used in its calculations, as discussed above. Moreover, even if the DEIR is correct about the effects of a 25-year storm, the runoff from a larger storm will exceed the Dominguez Channel capacity by that much more and may turn out to have significant effects. The DEIR unacceptably ignores that possibility.

The DEIR does not even provide this flawed level of analysis for the Santa Monica Bay drainage system. Instead, it simply dismisses the possibility of significant flooding impacts by referring to "recent studies," which allegedly found sufficient capacity in that system. SAIP DEIR at IV-26. The DEIR does not even name these studies, let alone provide references. The reader is asked simply to accept LAWA's word that the studies support its conclusion. This is an unacceptable approach for an EIR, which "must contain facts and analysis, not just the agency's bare conclusions or opinions." *Citizens of Goleta Valley*, 52 Cal. 3d at 568 (quotation marks omitted).

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4. The DEIR's Proposed Mitigation for Cumulative Flooding Impacts is Vague and Therefore Inadequate.

The DEIR does acknowledge that runoff from the SAIP, "in conjunction with runoff and peak flows from past and present projects, may not be able to be accommodated by" the Dominguez Channel system. SAIP DEIR at IV-33. In other words, the SAIP would contribute to a cumulative flooding problem in the Dominguez Channel basin. In mitigation for this serious impact, the DEIR offers a measure from the MPEIR, which "requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering to upgrade regional drainage facilities, as necessary, in order to accommodate current and projected future flows. . . ." SAIP DEIR at IV-22.

Lacking any concrete plans for improvements or funding mechanisms, this mitigation measure is plainly insufficient. It defers formulation of the actual measures until an unknown time in the future, and offers no standards to ensure their effectiveness. There is thus no way to judge whether this mitigation measure will actually avoid or minimize the significant cumulative flooding impact. Nor is there any certainty that improvements will be implemented. It therefore fails to meet CEQA's requirements. See CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time."). CEQA requires that "feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." *Federation of Hillside & Canyon Ass'ns*, 83 Cal. App.4th at 1261-62.

D. The DEIR's Analysis of and Mitigation for the Project's Impacts to Biotic Communities is Inadequate.

The SAIP DEIR's analysis of the Project's impacts on biotic communities repeats the errors of the MPEIR. The analysis is based on an arbitrary and flawed Mitigation Land Evaluation Procedure ("MLEP"), a modified version of the Habitat Evaluation Procedure ("HEP") developed by the U.S. Fish and Wildlife Service. The MLEP assigns a numerical value to the land slated to be disturbed by the Project, purportedly reflecting its worth as habitat. The value figures are assigned based on the habitat's resemblance to an idealized version of its general habitat type, rather than on the land's actual value to the wildlife it supports.

As discussed extensively in a report by Travis Longcore and Catherine Rich, Attachment E to our September 18, 2001 Comments ("Longcore Report"), the MLEP dramatically underestimates the Project's impacts. A properly applied HEP starts with the

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construction impacts on intersections. Thus, the LADOT letter provides no justification for ignoring similar impacts on roadway segments.

Moreover, the DEIR's analysis of intersection congestion is undermined by its reliance on unsubstantiated and half-explained assumptions about the routes of construction traffic. Specifically, the DEIR assumes that 76% of all construction traffic will travel to the airport via freeway and that only 8% will come through El Segundo surface streets. SAIP DEIR, Exh. 4.2-5. The only explanation for these figures is that they are based on the assumption that "trips would originate from geographic locations in proportion to the regional population distribution geographic distribution of the region's population." SAIP DEIR at IV-68.

Critically, there is no explanation of how population distribution statistics were turned into road usage figures. This calculation must be explained, especially as using surface streets to avoid freeway congestion is common practice in the Los Angeles area. Given this practice, it is implausible to assume without any evidentiary support that so few construction employees or delivery drivers would use surface streets. It is also likely that the route choices of airport passengers would differ from those of construction employees driving to the airport every day and of delivery drivers who spend their working lives on the road. Airport passenger surveys thus may not be accurate representations of the construction trip distribution. In short the DEIR must support its assumptions about construction trip distribution. Otherwise, it may not rely on these assumptions for traffic volume and congestion calculations regarding intersections and roadway segments. See *Citizens of Goleta Valley*, 52 Cal. 3d at 568.

2. The SAIP DEIR Ignores the Project's Cumulative Traffic Impacts.

An EIR must discuss a project's cumulative impacts when the project's incremental effect on the environment is cumulatively considerable. CEQA Guidelines § 15130(a). A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." CEQA Guidelines § 15355(b). The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed . . . action cannot be gauged in a vacuum." *Whitman v. Board of Supervisors*, 88 Cal.App.3d 397, 408 (1979). A cumulative traffic impacts analysis is especially important in the present case because of the ongoing, excruciating congestion on the freeways around the airport.

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needs of the species being studied and considers the land's value to that species. The MLEP starts with a generic vision of the habitat, and never takes into account what the impacted land provides for the species. As the Longcore Report explains, the MLEP will systematically underestimate impacts to species that thrive on disturbed ground, like the loggerhead shrike and San Diego black-tailed jackrabbit that inhabit the Project area. The species' habitat frequently fails to resemble ideal habitat types, and is thus given a low value by the MLEP. Thus, although the SAIP would destroy 36.34 acres of habitat suitable for loggerhead shrike and San Diego black-tailed jackrabbit, under the DEIR's analysis, the impact is only to 3.76 "habitat units." SAIP DEIR at IV-247 through -48.

This renders the DEIR inadequate in two ways. First, the low habitat values hide the magnitude of the Project's impacts. If individuals of sensitive species may thrive on a given piece of ground, making that land permanently unavailable to them is a dramatic loss, and the DEIR must recognize this. More importantly, following the MLEP leads the DEIR to offer wholly inadequate mitigation for the Project's impacts to the loggerhead shrike and the San Diego black-tailed jackrabbit. Because the DEIR characterizes the Project's 125.72 impacted acres as being worth only 17.2 habitat units, only 17.2 habitat units will be replaced as mitigation: 43 acres of off-site mitigation land will be restored to a .8 habitat value, for a total of 17.2 acres. Because the MLEP severely undervalues the impacted land, as discussed in the Longcore Report, this small acreage of mitigation land cannot be considered sufficient to reduce the Project's impacts to less than significant.

E. The SAIP DEIR's Analysis of Traffic Impacts is Inadequate and Incomplete.

1. The SAIP DEIR Improperly Ignores Traffic Impacts on Roadway Segments and Fails to Properly Calculate Trip Routes.

The DEIR's analysis of the Project's impacts on off-airport surface transportation only analyzes the Project's effect on traffic at intersections. It ignores any potential congestion that the Project construction traffic will cause on area roadway segments. The DEIR offers no explanation for this omission, other than a reference to a letter from the Los Angeles Department of Transportation ("LADOT"). While the LADOT letter states that the DEIR did not need to consider temporary construction-related traffic impacts at all (SAIP DEIR at IV-34-35, 53), this assertion is simply wrong. An EIR must "giv[e] due consideration to both the *short-term* and long-term effects" of a project. CEQA Guidelines § 15126.2(a) (emphasis added). The DEIR is thus required to consider the traffic effects of the year-long construction period, as the DEIR implicitly concedes by discussing

The DEIR dismisses cumulative impact analysis by claiming that the adjusted baseline method it uses already includes the impacts of other projects in the region. This is true as far as it goes, but the DEIR then fails to account for the Project's contribution to significant congestion at several intersections. Table 4.2-13 of the DEIR shows that several of the analyzed intersections suffer significant decreases in their level of service ("LOS"), for example, the drop from LOS C to LOS D for the P.M. peak at La Cienega and Century or the drop from LOS C to LOS E for the P.M. peak at Century and Aviation. The DEIR determines that the Project will not have a significant individual or cumulative impact on these intersections because its contribution to the overall impact does not meet the stated thresholds of significance.

The DEIR thus uses the same thresholds of significance to determine whether the Project has significant individual impacts as it does to determine whether the Project's contribution to a cumulative impact is cumulatively considerable. This approach is impermissible. By judging cumulative impacts and Project impacts by the same threshold, the DEIR completely defeats the purpose of looking at cumulative impacts. See *Kings County*, 221 Cal. App. 3d at 720. The SAIP's relatively small contributions to these undeniable traffic impacts are precisely the type of "drops in the bucket" that CEQA demands be considered in a cumulative impact analysis. If the small size of a project's contribution to this problem gets it off the hook, then it is possible—even likely—that no project will ever be held accountable for these traffic impacts, and no agency will ever be called upon to impose mitigation. Avoiding such a situation is the very purpose of cumulative impact analysis. See *Las Virgenes Homeowners Federation, Inc. v. County of Los Angeles* (1986) 177 Cal. App. 3d 300, 306.

The DEIR must consider whether the Project's contribution to congestion will be cumulatively considerable, using different thresholds of significance than it uses for project impacts. This incremental effect may be a smaller contribution than would be considered significant when analyzing the impacts of the Project alone. Indeed, accounting for a project's small contributions to large problems is exactly the purpose of cumulative impact analysis. See CEQA Guidelines § 15355(b); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 718-21 (holding that EIR may not dismiss cumulative impacts merely because project's contribution is small relative to magnitude of problem). Furthermore, the DEIR must impose mitigation to avoid or minimize the SAIP's contribution to these impacts.

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VI. THE SAIP DEIR'S FAILURE TO CONSIDER ALTERNATIVES TO THE PROJECT RENDERS IT LEGALLY INADEQUATE.

In blatant disregard for CEQA, the SAIP DEIR's text contains no discussion of alternatives to the Project. CEQA could not be more clear on the subject of alternatives: "The purpose of an environmental impact report is . . . to identify alternatives to the project . . ." Pub. Res. Code § 21002.1(a). There is no leeway in this mandate: "An EIR shall describe a range of alternatives to the project . . ." CEQA Guidelines § 15126.6(a). "Without meaningful analysis of alternatives in the EIR, neither the courts nor the public can fulfill their proper roles in the CEQA process . . . [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the environmental consequences of action by their public officials." *Laurel Heights Improvement Association of San Francisco v. U.C. Regents* (1988) 47 Cal. 3d 376, 404.

The DEIR purports to justify its failure to meet this requirement by noting that numerous "airfield configurations and locations" were considered in the MPEIR. It also suggests that airfield configurations must be designed at such "a precise level of detail" that the development and consideration of alternatives was impossible. Neither assertion remotely justifies the DEIR's failure to provide the legally required alternatives analysis. There is simply no exception to CEQA's alternatives requirement—no "tiering" exception, and certainly no "detailed airfield plan" exception. Before it may lawfully support any project approvals, the EIR must describe alternatives and compare their impacts to those of the proposed SAIP.

We recognize that Appendix B to the DEIR does briefly discuss two alternatives proposed by El Segundo. However, that discussion does not—and cannot—rectify this omission in the text of the DEIR, for several reasons. First, whatever is required to be in the text of the EIR must be in the EIR itself, not buried in some appendix. See *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2003) 106 Cal. App. 4th 715, 722-23; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 727. Second, Appendix B fails to discuss the CEQA-mandated no-project alternative. Third, LAWA, as the lead agency, bears the responsibility for identifying and analyzing all potentially feasible alternatives; it may not restrict itself simply to briefly considering those alternatives proposed by El Segundo. Fourth, as detailed below, the discussion in Appendix B does not remotely suffice to satisfy CEQA's requirements for analyzing a full range of potentially feasible alternatives.

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alternative, that analysis claims to consider only the airport with no Master Plan construction at all.⁷ MPEIR at 3-13 to 3-14. In the context of this second-tier EIR, the no-project alternative analysis must consider the impacts of the planned Alternative D construction without the SAIP.⁸ Without such analysis in the SAIP EIR, LAWA may not lawfully approve the Project.

A no-project analysis is particularly appropriate for the SAIP because physically reconfiguring the airfield—at the cost of hundreds of millions of dollars and significant environmental impacts—does little or nothing to directly address the safety concerns that are ostensibly driving this proposal.

C. The SAIP DEIR Must Analyze Non-Construction Alternatives for Reducing Runway Incursions.

A thorough alternatives analysis is also necessary to allow the public and decisionmakers the opportunity to consider whether any substantial construction at all was necessary to reduce runway incursions. By far the most common cause of runway incursions at LAX is pilot or other human error. The center taxiway at the heart of the SAIP does nothing to remedy pilot error, and therefore is highly unlikely to be a truly effective means of achieving the Project's underlying goals. In fact, the only actual study relied upon by the DEIR to support its claim that the SAIP will reduce runway incursions, SAIP DEIR at II-2, strongly suggests just the opposite. After four days of simulations, air traffic controllers were asked to rate how the center taxiway affected the potential for runway incursion. The mean answer from ground controllers working the south side of the airport was that the chance of an incursion was *slightly greater* with the reconfigured airfield than it had been before September 11th, 2001. NASA FutureFlight Central (2003), *Los Angeles International Airport Runway Incursion Studies, Phase III—Center Taxiway Simulation* at p. 16; see also Kanafani Memorandum, attached hereto as Exhibit 2.

Attacking the problem of pilot error directly, rather than with a major construction project of questionable value, could realize significant safety improvements

⁷In fact, as we have previously commented, the MPEIR's no-project alternative included numerous activities and thus was not a true no-project alternative.

⁸To be legally adequate, this analysis must evaluate the impacts of the no-project alternative against the Master Plan *as modified* by the Consensus Plan (i.e., it must take into account the fact that yellow-lighted projects are highly unlikely to be constructed).

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A. The DEIR's Truncated Project Objective Precludes Meaningful Analysis of Alternatives.

It is especially important at the alternatives phase of the CEQA process that the agency keep an open mind to all feasible means of achieving the agency's objectives. "The CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal." [citation omitted] . . . [T]he lead agency may determine an environmentally superior alternative is more desirable or [that] mitigation measures must be adopted . . ." *Kings County*, 221 Cal. App. 3d at 736-37.

Thus, the first step that LAWA must take to provide an adequate alternatives analysis is to articulate a proper objective for the Project, rather than the narrow, circular objective the DEIR provides. As discussed above, the DEIR's stated project objective, "to implement the SAIP," is entirely circular. As such, it makes any analysis of alternatives both pointless and impossible. To provide the required meaningful discussion of alternatives, the DEIR must first adjust the Project's objectives. Other parts of the document suggest that the main goal of the project is improving safety by decreasing the number of runway incursions that occur on Runway 25R. *E.g.*, SAIP DEIR at II-2 ("[A] primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions."); SAIP DEIR, Appx. B at 3 ("reducing or eliminating the risk of runway incursions on the south airfield at LAX, while maintaining airfield efficiency and being cost-effective"). Accordingly, we will assume for purposes of our comments that reducing the risk of runway incursions is LAWA's true project objective.

B. The SAIP DEIR Must Analyze the Required No-Project Alternative.

The most obvious flaw in the DEIR's do-nothing approach to the analysis of alternatives is the failure to consider a no-project alternative. The no-project alternative is an essential aspect of every EIR. The contrast it provides offers decisionmakers and the public their best chance to see clearly the overall impacts of the proposed project, and to decide whether they want it to go forward. Even if it were acceptable in certain circumstances for a second-tier EIR to rely on a previous alternatives analysis, the MPEIR's analysis here is not sufficient to satisfy the SAIP DEIR's obligation to consider a no-project alternative. In a tiering process, the "level of specificity" must change with every tier. See *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners of the City of Long Beach* (1993) 18 Cal. App. 4th 729, 741-42. Although the MPEIR purportedly analyzes the impacts of a "no-project

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without the cost or environmental impacts of the proposed SAIP. The DEIR should consider a variety of safety measures, including restriping the crossover taxiways, installing effective traffic signals on the taxiways, simplifying and/or automating tower commands to improve the comprehension of non-English-speaking pilots, and requiring in-cockpit signaling devices telling pilots when they are nearing the hold-short line. See Kanafani Memorandum, ¶ 5. These are just a few possibilities. That the SAIP DEIR does not consider *any* alternative solutions to the runway incursion problem calls into question whether safety is truly motivating this Project. A continued unwillingness to consider the effectiveness of safety measures less costly and disruptive than the planned reconfiguration would only reinforce that skepticism.

D. The SAIP DEIR Must Thoroughly Analyze the End-Around Alternatives Proposed by El Segundo.

As for alternatives to the Project that would include construction, the MPEIR's alternatives analysis only considered broad plans. It did not consider any specific alternatives that could address the runway incursions that the SAIP is purportedly designed to prevent. Analyzing such specific alternatives would not be futile. There are at least two potentially feasible alternatives to the proposed southwards runway shift and centerline taxiway. Both alternatives involve an end-around taxiway that extends westward from the end of Runway 7R-25L, then turns northward past the end of Runway 7L-25R to reach the central terminal complex. The taxiway could potentially reduce environmental impacts under two scenarios: (1) if it is constructed at grade so that aircraft do not need to throttle up noisily to traverse hills, and (2) if aircraft using the taxiway are towed with relatively quiet tugs rather than proceeding under their own power. Both alternatives were previously brought to LAWA's attention. Nevertheless, the DEIR dismisses them for legally inadequate reasons.

The DEIR offer no analysis, let alone substantial evidence, suggesting that either of the end-around proposals fail to meet any of the criteria for a reasonably feasible alternative. Instead the DEIR simply asserts that "[i]n contrast to El Segundo's assumption that both suggested end-around modifications might reduce noise impacts on nearby El Segundo residential areas, results of the planning study concluded that [the proposed project], overall, is more feasible than either one of the modified end-around taxiway designs." SAIP DEIR at II-9. The DEIR does not provide any substantial evidence to support this conclusion. Nor does it even purport to address whether these alternatives might reduce noise impacts.

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Moreover, the assertion that the SAIP as proposed is "more feasible" than these alternatives contains an explicit acknowledgment that the alternatives are, at the very least, potentially feasible. Certainly, the DEIR presents no evidence of the infeasibility of the two end-around proposals. The DEIR does refer to the "Modified End-Around Taxiway Operations Analyses," (the "Planning Study") contained in an appendix, SAIP DEIR, Appx. B. However, "[w]hatever is required to be considered in an EIR must be in the report itself." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 727.

Even if the Planning Study's analysis is considered to be part of the DEIR's text, that document does not provide a sufficient basis for dismissing the end-around alternatives without considering them. It finds only that the end-around alternatives may increase some costs of reconfiguring the runway. SAIP DEIR Appx. B at 28-29. But CEQA requires reasonable alternatives to be considered, "even if these alternatives . . . would be more costly." CEQA Guidelines § 15126.6(b). Furthermore, the Planning Study provides only general suggestions of the costs of the end-around alternatives, rather than the complete cost-benefit analyses requested by El Segundo during scoping. To provide decisionmakers and the public with the information they need to make an intelligent decision concerning the SAIP, the EIR must include a complete comparison of the costs and impacts of the alternatives and the proposed project.

Perhaps most disturbingly, the DEIR presents no analysis of whether the end-around alternatives will meet the Project's objectives. Before it could perform such an analysis, the DEIR would have to restate the Project's objectives, as discussed above. Neither the DEIR nor the Planning Study considers the degree to which the end-around alternatives could advance the goal of improving safety and decreasing the number of runway incursions. The DEIR must consider reasonable alternatives, "even if these alternatives would impede to some degree the attainment of the project objectives." CEQA Guidelines § 15126.6(b); see also *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal. App. 4th 477, 489. Until it does so, it will remain inadequate.

Finally, neither the Planning Study nor the DEIR adequately analyzes the end-around alternatives' ability to reduce or avoid some of the proposed project's environmental impacts. As discussed in the Aviation Systems Report, the Planning Study does no more than find that one of the two end-around alternatives, the tug proposal, may not improve on the project in one noise metric and in the emission of certain air pollutants. SAIP DEIR, Appx. B at 19-28. Other noise metrics are not considered.

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Moreover, the end-around with tugs alternative is a clear improvement over the proposed Project in terms of several other air pollutants. SAIP DEIR, Appx. B at 26-28. A reasonable alternative may be one that reduces some, but not all, of a project's impacts. *Mira Mar Mobile Community*, 119 Cal. App. 4th at 489. Accordingly, these conclusions are insufficient to eliminate the end-around with tugs alternative from consideration. Furthermore, neither the DEIR itself nor the Planning Study presents any analysis at all of the impacts of the at-grade end-around alternative.

Accordingly, a revised DEIR must be prepared that complies with CEQA's requirements to provide information sufficiently detailed to permit a reasonable choice of alternatives so far as environmental aspects are concerned. *San Bernardino Valley Audubon Soc'y v. County of San Bernardino* (1984) 155 Cal. App. 3d 738, 750-51. This must include a thorough comparison of alternatives' environmental impacts with the proposed Project's.

The revised DEIR must also set forth all alternatives that were considered by the lead agency and rejected as infeasible during the scoping process, and the reasons underlying the agency's determination. Agency consideration of reasonable but infeasible alternatives in the administrative record cannot replace the CEQA-mandated discussion of alternatives in the EIR, even if that discussion is in an appendix to the EIR. See *Citizens of Goleta Valley*, 52 Cal.3d at 569. Thus, if LAWA finds certain alternatives to be infeasible, its EIR analysis must explain in meaningful detail the reasons and facts supporting that conclusion.

E. The SAIP DEIR Must Thoroughly Analyze Alternatives Using Different Operational Configurations.

The SAIP DEIR must also consider whether, assuming that runway 25L was moved to the south, alternative operational configurations could be used to mitigate noise and other impacts on El Segundo. As explained by Professor Kanafani, with the exception of aircraft heading towards the facilities in the southern part of the airfield, there is no legitimate reason to permit aircraft exiting runway 25L to continue using taxiway A. Kanafani Memorandum, ¶ 6. Accordingly, the DEIR should analyze whether a requirement prohibiting such use (with the noted exception) would mitigate noise and air quality impacts on El Segundo. For similar reasons, the DEIR should also analyze an alternative that precludes use of taxiway A to bring A380's to takeoff on runway 25L. Other operational configurations may also be available that could minimize the SAIP's significant noise and air quality impacts, and CEQA requires LAWA to identify and analyze these alternatives.

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VII. THE AIRPORT LAND USE COMMISSION HAS RULED THAT THE ENTIRE MASTER PLAN, INCLUDING THE SAIP, IS INCONSISTENT WITH THE STATE AERONAUTICS ACT.

Airport planning in California is governed in part by the State Aeronautics Act, Public Utilities Code sections 21670 et seq. ("the Act"). The Act aims to "protect public health, safety, and welfare by ensuring the orderly expansion of airports." To this end, the Act establishes the Los Angeles County regional planning commission as the Airport Land Use Commission ("ALUC") for the county. Public Utilities Code § 21670.2(a). It gives the ALUC the authority to decide appeals from "impasses" in the coordination of airport planning among public agencies. *Id.* On April 20, 2005, the ALUC ruled on impassé appeals of the Los Angeles City Council's approval of the Master Plan, brought by the City of El Segundo and the County of Los Angeles. El Segundo's appeals focused on the absence in the Master Plan of any means to limit the airport's capacity to the 78.9 million annual passengers ("MAP") that was the basis of the MPEIR's impact analyses. Without such limitation, impacts could exceed those reported in the MPEIR with no mitigation or public process, undermining the purposes of the Act. El Segundo also claimed the Master Plan's dismissal of a coordinated regional approach to airport development ran counter to the Act.

In its decision, which is attached to this letter as Exhibit 9, the ALUC ruled that "[a]pproval of the Master Plan while the MAP issue remains unresolved creates the potential for new noise and safety impacts to be introduced without adequate planning or mitigation and prevents the airport land use compatibility planning described in the Act from being accomplished, thereby thwarting the purposes of the Act." Exh. 9 at 4. On the regional approach issue, the ALUC ruled that "[a] regional approach to airport planning that provides for the growth of aviation facilities in undeveloped or less developed areas, such as Palmdale Regional Airport, where airport land use compatibility planning can be more effective[,] would be consistent with the purposes of the Act." *Id.* The ALUC further determined that "[a]irport land use compatibility planning cannot function in urban areas if airport planning does not include negotiation with surrounding jurisdictions." *Id.* at 5.

On these bases, the ALUC, the body charged with determining consistency with the Act, determined that the Master Plan is inconsistent with Public Utilities Code sections 21670(a)(1) and (2). Accordingly, the ALUC disapproved the decision to go forward with the Master Plan. As the ALUC informed LAWA in an August 22, 2005 letter (attached to this letter as Exhibit 10), implementing any aspect of the Master Plan, including the SAIP, is inconsistent with the ALUC ruling. Thus, the Project may not go forward unless

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and until four-fifths of the Los Angeles City Council vote to overrule the ALUC determination. Public Utilities Code § 21670.2(a).

VIII. CONCLUSION

In order to cure the DEIR defects identified in this letter, LAWA must obtain substantial new information to adequately assess the proposed SAIP's environmental impacts, and to identify effective mitigation measures and alternatives capable of addressing the Project's significant environmental impacts. Before LAWA can consider whether to approve the Project, CEQA requires that the public be given a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated draft supplemental EIR.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



ROBERT S. PERLMUTTER


GABRIEL M.B. ROSS

EXHIBITS

- Exhibit 1 Petitioner City of El Segundo's Memorandum of Points and Authorities in Support of Petition for Writ of Mandate in *City of El Segundo v. City of Los Angeles et al*, Riverside Superior Court No. RIC426822
- Exhibit 2 September 14, 2005 memorandum from Professor Adib Kanafani to Robert Perlmutter
- Exhibit 3 Aviation Systems, Inc., Review of the Draft EIR for the South Airfield Improvement Project (September 2005)
- Exhibit 4 September 13, 2005 Letter from David Wieland, Wieland Associates, Inc., to Dr. Gary Allen, Aviation Systems Inc.
- Exhibit 5 Federal Interagency Committee on Aviation Noise, *Effects of Aviation Noise on Awakenings from Sleep* (June 1997)

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- Exhibit 6 "Superjumbo" A380 Lands Safely (April 28, 2005)
- Exhibit 7 Table 2: Percentage of Impacted Dwelling Units Without Sound Insulation
- Exhibit 8 Memorandum of Understanding Between the City of Los Angeles and the City of Inglewood (2001)
- Exhibit 9 Resolution of the Los Angeles County Airport Land Use Commission (April 20, 2005)
- Exhibit 10 August 22, 2005 Letter from Los Angeles County Airport Land Use Commission to Karen Hoo, LAWA

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8 SUPERIOR COURT OF THE STATE OF CALIFORNIA
9 COUNTY OF RIVERSIDE

10 CITY OF EL SEGUNDO,) Case No. RIC426822
a California municipal corporation,)
11 Petitioner,) Department: 01
Judge: Hon. Stephen D. Cunnison
12 v.) Hearing: August 29, 2005
Time: 9:30 a.m.

13 CITY OF LOS ANGELES; CITY)
COUNCIL OF THE CITY OF LOS)
14 ANGELES; JAMES K. HAHN, Mayor, City) PETITIONER CITY OF EL
of Los Angeles; LOS ANGELES WORLD) SEGUNDO'S MEMORANDUM OF
15 AIRPORTS a/k/a DEPARTMENT OF) POINTS AND AUTHORITIES IN
AIRPORTS OF THE CITY OF LOS) SUPPORT OF PETITION FOR WRIT
16 ANGELES; and BOARD OF AIRPORT) OF MANDATE
COMMISSIONERS OF THE CITY OF LOS)
17 ANGELES,)
Respondents.) Petition Filed: January 3, 2005

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19
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21

22 COUNTY OF LOS ANGELES,)
23 CALIFORNIA, a political subdivision of the) Petition Filed: January 6, 2005
State of California; CITY OF)
24 INGLEWOOD, CALIFORNIA, a chartered)
municipal corporation; and CITY OF)
25 CULVER CITY, CALIFORNIA, a chartered)
municipal corporation,)
26 Petitioners and Plaintiffs,)
27 v.)
28

CITY OF EL SEGUNDO'S MEMORANDUM
OF POINTS AND AUTHORITIES
Case No. RIC426822

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1 CITY OF LOS ANGELES, a Municipal)
2 Corporation; CITY COUNCIL OF THE)
CITY OF LOS ANGELES; JAMES K.)
3 HAHN, Mayor, City of Los Angeles; LOS)
ANGELES WORLD AIRPORTS a/k/a)
4 DEPARTMENT OF AIRPORTS OF THE)
CITY OF LOS ANGELES; and LOS)
5 ANGELES BOARD OF AIRPORT)
COMMISSIONERS and DOES 1 through)
6 100, inclusive,)
Respondents and Defendants.)

7
8

9 ALLIANCE FOR A REGIONAL)
SOLUTION TO AIRPORT CONGESTION,)
10 Petitioner,) Petition Filed: January 6, 2005
11 v.)

12 CITY OF LOS ANGELES, a Municipal)
Corporation; CITY COUNCIL OF THE)
13 CITY OF LOS ANGELES; JAMES K.)
HAHN, Mayor, City of Los Angeles;)
14 BOARD OF AIRPORT COMMISSIONERS;)
LOS ANGELES WORLD AIRPORT;)
15 CALIFORNIA COASTAL COMMISSION,)
a California state agency; and DOES 1-X,)
16 Respondents.)
17

18 FEDERATION OF HILLSIDE AND)
19 CANYON ASSOCIATIONS, a non-profit)
corporation; COALITION AGAINST THE)
PIPELINE ("CAP"), an unincorporated)
20 association,)
21 Petitioners)
22 v.)
23 THE CITY OF LOS ANGELES; THE CITY)
COUNCIL OF THE CITY OF LOS)
24 ANGELES; LOS ANGELES WORLD)
AIRPORTS ("LAWA"), a/k/a)
25 DEPARTMENT OF AIRPORTS OF THE)
CITY OF LOS ANGELES; BOARD OF)
26 AIRPORT COMMISSIONERS OF THE)
CITY OF LOS ANGELES, DOES 1-10,)
27 Respondents.)
28

CITY OF EL SEGUNDO'S MEMORANDUM
OF POINTS AND AUTHORITIES
Case No. RIC426822

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OF POINTS AND AUTHORITIES
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PRELIMINARY STATEMENT

1 Petitioner City of El Segundo ("El Segundo") brings this action to challenge the
 2 decisions of Respondents¹ to adopt the Los Angeles International Airport ("LAX")
 3 Master Plan, LAX Specific Plan, LAX Plan, Airport Layout Plan, and Draft Relocation
 4 Plan, as well as associated General Plan Amendments, Code Amendments, Zone
 5 Changes, and Tentative Tract Maps (collectively, "the Project"), and to certify the
 6 environmental impact report ("EIR") for the Project.

7 This dispute is not about whether or not LAX needs improvement, or about
 8 whether the impacts of LAX need to be mitigated. That much is agreed. What
 9 Petitioners will show in this case is that Respondents, in pursuit of their goal to advance
 10 the role of LAX as an "international gateway" airport, have systematically evaded
 11 environmental review requirements.

12 The stakes in this case are high. Respondents' eleven billion dollar expansion plan
 13 envisions massive new facilities, expanded infrastructure, and new services. The touted
 14 economic benefits are great; the costs are astronomical. The significant adverse
 15 environmental impacts of the LAX Project, including air quality, traffic, and public health
 16 impacts, are widespread and unmitigated, and they are given short shrift in the EIR.

17 This case involves much more than a disagreement among technical experts. The
 18 design of the EIR systematically exaggerates the benefits and understates the impacts of
 19 the proposed Project. The EIR systematically omits critical facts and analysis: it omits
 20 analysis of the physical throughput capacity of the proposed aircraft gate improvements; it
 21 omits analysis of specific feasible alternatives; it omits analysis of certain toxic air
 22 emissions; it omits analysis of specific traffic impacts, particularly on highways. As
 23 summarized below and demonstrated herein, the EIR fails to provide decision makers and
 24

26 ¹ The City of Los Angeles, the City Council of the City of Los Angeles, the Mayor of
 27 the City of Los Angeles, Los Angeles World Airports ("LAWA") (also known as the
 28 Department of Airports of the City of Los Angeles), and the Board of Airport Commissioners of the City of Los Angeles ("BOAC") are referred to collectively as "Respondents."

1 members of the concerned public with full and adequate disclosure of the impacts of the
 2 proposed project.

3 The communities surrounding LAX, including El Segundo, have for decades
 4 endured the significant adverse environmental consequences of intensive airport
 5 operations. See Administrative Record of Proceedings,² vol. 111, p. 056401 (City of El
 6 Segundo's Sept. 18, 2001 comment letter). The Project – a massive rework of the airport
 7 – will aggravate LAX's adverse impacts on the surrounding communities by increasing
 8 the airport's capacity and by causing significant environmental impacts without adequate
 9 mitigation. See AR 34:017273 (Fig. ES-5, drawing of Project); AR 134:066525 (lines
 10 11-12) (LAWA cost estimate).

11 Respondents' actions in adopting the LAX Master Plan and related approvals
 12 violated the California Environmental Quality Act ("CEQA"), Public Resources Code
 13 §§ 21000 et seq. and the CEQA Guidelines, Title 14, California Code of Regulations,
 14 §§ 15000 et seq. Most fundamentally, the EIR violates CEQA by failing to provide an
 15 accurate and stable project description. County of Inyo v. City of Los Angeles, 71
 16 Cal.App.3d 185, 193 (1977) ("Inyo County I") ("An accurate, stable and finite project
 17 description is the sine qua non of an informative and legally sufficient EIR.")

18 The EIR violates CEQA by significantly understating the capacity of the Project
 19 (known as Alternative D). Although the EIR assumes the Project will serve no more than
 20 78.9 million annual passengers ("MAP") and 3.1 million annual tons ("MAT") of cargo,
 21 the Project provides no mechanism to assure that these assumed levels of operations will
 22 not be exceeded. In fact, substantial evidence in the record demonstrates that LAX's
 23 capacity under the Master Plan will be far greater than that assumed in the environmental
 24 analysis. See AR 119:060432-56 (Nov. 2003 analysis of Dr. Adib Kanafani); AR
 25 137:067687-701 (Oct. 2004 analysis of Dr. Kanafani). As a result of this inaccurate
 26 project description, the EIR substantially understates the extent and severity of the

27 ² Citations to the Administrative Record of Proceedings are in the form AR volume
 28 number; page number.

1 Project's impacts. This stands in direct conflict with CEQA's mandate to analyze all the
 2 impacts of the entire Project. Pub. Res. Code § 21100(b)(1); CEQA Guidelines §
 3 15126.2(a). See CEQA Guidelines § 15378(a).

4 The EIR's alternatives analysis, which is at the core of the environmental review
 5 process, violates CEQA. Pub. Res. Code § 21002.1(a) ("The purpose of an
 6 environmental impact report is to identify the significant effects on the environment of a
 7 project, to identify alternatives to the project, and to indicate the manner in which those
 8 significant effects can be mitigated or avoided") (emphasis added); see also Citizens of
 9 Goleta Valley v. Bd of Supervisors, 52 Cal.3d 553, 564-65 (1990). The EIR violates
 10 CEQA's mandate to consider a reasonable range of feasible alternatives to the proposed
 11 project that are "capable of avoiding or substantially lessening any significant effects of
 12 the project," by neglecting to discuss any lesser build alternatives than the Project. CEQA
 13 Guidelines § 15126.6(b). It fails to provide good faith, reasoned responses to feasible
 14 alternatives suggested by the public. See CEQA Guidelines § 15088; Marin Mun. Water
 15 Dist. v. KG Land Cal. Corp., 235 Cal.App.3d 1652, 1665-66 (1991).

16 The alternatives analysis also violates CEQA's requirements for the No Project
 17 Alternative analysis. CEQA Guidelines § 15126.6(e). The No Project Alternative
 18 evaluated in the EIR is skewed and inaccurate because it includes development at and
 19 around LAX that cannot "be reasonably expected to occur in the foreseeable future" in
 20 the absence of the approved LAX Master Plan. Id. § 15126.6(e)(2). This flawed
 21 definition causes the EIR to dramatically overstate the intensity and impacts of the No
 22 Project Alternative, which in turn greatly distorts the impacts of the build alternatives
 23 (including Alternative D) by making them appear less problematic by comparison. It also
 24 results in improperly identifying Alternative D as environmentally superior to the No
 25 Project Alternative.

26 In addition, the EIR fails to satisfy CEQA's mandate to thoroughly disclose,
 27 analyze and mitigate the Project's significant environmental effects. Pub. Res. Code § §
 28 21002.1(a), 21100(b); CEQA Guidelines § 15126.4. As summarized in this

1 Memorandum, the EIR does not adequately address impacts on air quality, public health
2 and safety, noise, or traffic, or provide sufficient enforceable mitigation measures to
3 address these impacts. The flaws in this analysis are exacerbated by artificially cutting
4 off the EIR's analysis of environmental impacts at the year 2015 despite the fact that the
5 Master Plan will result in increased airport operations and significant environmental
6 impacts in the longer term.

7 Respondents also failed to recirculate the EIR after providing significant new
8 information in the form of the First, Second, Third, and Fourth Addenda, as required by
9 CEQA. CEQA Guidelines § 15088.5(a); see also Pub. Res. Code § 21092.1. The
10 information included in these Addenda both identifies new significant impacts and
11 highlights the existence of feasible mitigation measures, not adopted by Respondents, that
12 would clearly lessen significant Project impacts. The addition of this information invokes
13 an obligation to recirculate the EIR. CEQA Guidelines § 15088.5(a).

14 **STATEMENT OF FACTS**

15 **I. ENVIRONMENTAL SETTING OF THE PROJECT**

16 LAX is located in a densely populated, urban area approximately 12 miles
17 southwest of downtown Los Angeles. AR 34:017463. It is surrounded by many
18 communities, which suffer adverse impacts from the airport including high levels of noise
19 and traffic, and impaired air quality. See AR 34:017465 (LAX location map). In
20 particular, El Segundo, which is located immediately to the south of the airport, has for
21 decades endured increasingly significant environmental impacts associated with the
22 operation and expansion of LAX. See id.; AR 34:017466 (LAX Aerial Photo 2000,
23 showing residences of El Segundo just to the south of LAX southern runway, some
24 merely feet away).

25 The City of El Segundo was incorporated in 1917, eleven years before LAX
26 (originally known as Mines Field) opened in 1928. AR 34:017463 (FEIR discussion of
27 LAX history). LAX's explosive growth over the years has had very serious adverse
28 impacts on the environment and quality of life in El Segundo. AR 71:041468 (depicting

1 mitigated. See AR 111:056431-38 (City of El Segundo's Sept. 18, 2001 comment letter);
2 AR 119:060236-39 (City of El Segundo's Nov. 4, 2003 comment letter).

3 In 1981, Respondents adopted an "Interim Plan," which was described as a short-
4 term guide for airport planning. AR 57:036257-63 (Interim Plan). The Interim Plan
5 envisioned LAX's maximum capacity as only 40 MAP and called for Palmdale Airport to
6 accommodate additional passenger volume. AR 57:036259. However, LAX exceeded
7 the 40 MAP projected level of operations in 1986 and has continued to grow since then.
8 See AR 34:017467. In 2000, LAX served more than 67 million passengers. AR
9 137:067818.

10 The process of formulating the recently adopted LAX Master Plan began in 1995,
11 when LAX was already serving approximately 54 MAP and the projected demand for
12 passenger service at LAX was 98 MAP by 2015. AR 34:017467; AR 137:067818; AR
13 39:020702 (stating in response to comments that "passenger activity levels are projected
14 to reach approximately 98 MAP in 2015"). LAWA released its Draft Master Plan in
15 November 2000. AR 34:017467. The Draft Master Plan described three "build"
16 alternatives – Alternatives A, B and C – and a No Project Alternative. AR 34:017467. In
17 July 2003, LAWA released a Master Plan Addendum introducing its new proposed
18 Project, "Alternative D," which was ultimately the basis for the approved Project. AR
19 34:017467. The stated goal of Alternative D was to modernize LAX and enhance its
20 safety and security, without increasing its existing capacity. AR 10:004361.

21 **B. The Approved Project Calls for Major Airport Modifications But
22 Defers Central Elements of Alternative D.**

23 Respondents approved the \$11 billion-plus Project on December 7, 2004. AR
24 140:069244 (Notice of Determination); AR 134:066525 (lines 11-12) (LAWA cost
25 estimate). The Project provides for expansive, large-scale airport modifications. Key
26 elements of the Project include: airfield modifications including new taxiways and

1 the "explosive growth" of Los Angeles and LAX). As such, El Segundo is naturally very
2 concerned about the impacts of continued growth at LAX and has therefore for many
3 years sought to prevent or mitigate such impacts. See, e.g., AR 15:006634 (1997 El
4 Segundo letter to Los Angeles, noting that its "residents and businesses are already
5 heavily impacted by the current facilities and operations at LAX," that the proposed
6 Master Plan alternatives "would only lead to much more severe impacts on all aspects of
7 City life," and seeking a full and fair environmental analysis of the airport's expansion
8 plans, given "the difficulty the City [of El Segundo] has had over the years in securing
9 cooperation from LAX in taking reasonable steps to reduce existing impacts.").

10 **II. THE PROJECT**

11 **A. Comprehensive Planning for LAX Is Badly Needed And Long
12 Overdue.**

13 The Federal Aviation Administration ("FAA") calls for airports to periodically
14 adopt an "Airport Master Plan" to govern airport development. See Declaration of Osa
15 Armi ("Armi Decl."), Exhibit 1 (FAA, Advisory Circular No. 150/5070-6A: Airport
16 Master Plans (June 1985)).³ Prior to the current Project, Respondents had not approved a
17 comprehensive Master Plan for LAX since 1956. AR 34:017464. This almost fifty-year
18 gap between master plans far exceeds the FAA's recommended twenty-year period. Armi
19 Decl., Exh. 1 at ES 014-15. During this lengthy planning vacuum, Respondents have
20 engaged in ongoing piecemeal expansion of LAX. As a result, LAX operations, and the
21 associated environmental impacts, have increased steadily. See AR 34:017467. LAX's
22 growth has taken place in the absence of any comprehensive environmental review, and
23 the impacts of that growth on surrounding communities such as El Segundo have not been

24
25
26 ³ The City of El Segundo hereby requests judicial notice of the FAA Advisory Circular.
27 This official guidance document predates Project approval, and is admissible as a
28 regulation (Evid. Code § 452(b)) and as an official act of a federal agency (Evid. Code §
452(c)). The FAA Advisory Circular is the FAA's most recent guidance on preparing
airport master plans, and therefore governed Respondents' preparation of the LAX
Master Plan.

1 additional runway length, New Large Aircraft⁴ accommodation measures, additional
2 aircraft parking gates, automobile parking upgrades, a new rental car facility, a new
3 automated people mover, and reconfiguration of the southern runway complex. See AR
4 34:017273 (Fig. ES-5, drawing of Alternative D); AR 10:004388-89 (LAX Master Plan
5 discussing components of Alternative D). Many of these Project elements, such as
6 airfield modifications and airport facility additions, are growth-inducing and are generally
7 consistent with Respondents' historic pattern of undertaking projects that increase airport
8 capacity, while denying that such capacity increases will occur.

9 Despite the grand scale of the Project, Respondents made significant eleventh-hour
10 changes to sideline project components that were analyzed in the EIR and relied on to
11 reduce adverse environmental impacts. Alternative D, as proposed by LAWA, included
12 many elements that were unpopular with the Los Angeles City Council because of
13 widespread opposition among Los Angeles residents. Respondents, therefore, ultimately
14 approved Alternative D as modified by the so-called "Consensus Plan." Under this plan,
15 the City Council approved Alternative D, but agreed to proceed with only certain
16 elements of the Project. See AR 134:066377, 066380-81 (letter from Claudia Culling,
17 Los Angeles Office of the City Attorney, to Los Angeles Planning and Land Use
18 Committee, regarding the environmental review implications of the Consensus Plan); AR
19 134:066476 (lines 6-20) (Kim Day, Executive Director of LAWA, explaining the Specific
20 Plan divides projects into two categories – those to be implemented immediately and
21 other projects that must undergo additional study before implementation – based on their
22 public acceptability). The elements requiring additional review include the construction
23 of a Ground Transportation Center ("GTC"), the demolition of Terminals 1, 2 and 3, and
24 the re-configuration of the northern runway complex. See AR 130:064804 (LAX
25 Specific Plan, Sept. 29, 2004); AR 34:017273 (Fig. ES-5, drawing of Alternative D).
26 These changes render the Project that was ultimately approved by Respondents

27
28 ⁴ New Large Aircraft, or NLAs, refers to new design Group VI aircraft not yet in use.
The Airbus A380 will be the first NLA and is expected next year. AR 10:004393.

1 significantly different from the Master Plan evaluated in the EIR. No environmental
2 review was conducted for the dramatically altered Project actually adopted by
3 Respondents.

4 **III. ENVIRONMENTAL REVIEW**

5 The environmental review process for the Project has unfolded since 1997, and
6 resulted in the production of an EIR totaling approximately 30,000 pages, well over
7 CEQA's suggested length. CEQA Guidelines § 15141 ("The text of draft EIRs should
8 normally be less than 150 pages and for proposals of unusual scope or complexity should
9 normally be less than 300 pages."); see Respondents' Answer to Petitioner City of El
10 Segundo's Petition for Writ of Mandate ("Respondents' Answer" at ¶ 23 ("Respondents
11 admit that the Final EIR totals approximately 30,000 pages."). At every step throughout
12 that process, the City of El Segundo has identified the technical, procedural and legal
13 problems with Respondents' CEQA review.⁵ The EIR does not, however, respond to El
14 Segundo's concerns.

15 Respondents initiated the environmental review process by filing a Notice of
16 Preparation of a Draft Environmental Impact Report for the Project ("NOP") with the
17 State Clearinghouse on or about June 11, 1997. AR 78:044373. In January 2001, the first
18 environmental review document, a joint Draft EIS/EIR, was released by LAWA and the
19 Federal Aviation Administration ("FAA") pursuant to CEQA and the National
20 Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321 *et seq.* AR 12:004985 *et*
21 *seq.*; see also AR 34:017467 (explaining the LAX Master Plan process). In July 2003,
22 LAWA and the FAA released a Supplement to the Draft EIS/EIR ("Supplemental Draft
23 EIS/EIR") evaluating Alternative D. AR 26:013048 *et seq.*; see also AR 34:017467
24 (explaining the LAX Master Plan process). The City of El Segundo provided extensive

25 ⁵ As discussed in more detail below, the City of El Segundo has submitted the following
26 comment letters during the course of the Master Plan process: (1) Comment letter on
27 Notice of Preparation of Draft EIR (AR 15:006634-37), (2) Comment letter on Draft
28 EIS/EIR (AR 111:056398-936), (3) Comment letter on Supplemental Draft EIS/EIR (AR
119:060229-617), (4) Comment letter on Final EIR (AR 137:067674-923), and (5)
Comment letter requesting recirculation of EIR (AR 141:069629-31).

1 comments on both the 2001 Draft EIR and the 2003 Supplemental Draft EIS/EIR. AR
2 111:056398-936; AR 119:060229-617.

3 The Final EIR was released by LAWA in April 2004, and included the agency's
4 response to public comments on the Draft EIS/EIR and the Supplemental Draft EIS/EIR.
5 AR 34:017252 *et seq.*; see also AR 34:017467 (explaining the LAX Master Plan process).
6 In September 2004, LAWA released an Addendum to the Final EIR ("First Addendum")
7 and in December 2004, on the eve of Project approval, Respondents announced three
8 more addenda to the Final EIR ("Second, Third and Fourth Addenda"). AR 55:034912 *et*
9 *seq.*; AR 55:035104 *et seq.*; AR 55:035446 *et seq.*; AR 55:035792 *et seq.* The City of El
10 Segundo submitted comments on both the Final EIR and the First Addendum in
11 December 2004. AR 137:067674. The Second, Third and Fourth Addenda were not
12 publically available until after the Project was approved, so El Segundo was unable to
13 comment on those addenda. AR 141:069629-31.

14 As the comments submitted by El Segundo and others make clear, the great
15 quantities of time and money expended by the parties in the LAX Master Plan review
16 process have not resulted in an adequate EIR. In fact, the environmental documentation
17 leaves many of the public's concerns unaddressed, and questions unanswered. The
18 format in which the documents were released has frustrated meaningful public review.
19 The expense of obtaining a full copy of the Master Plan and the EIR – approximately
20 \$6,500 – and the unreliable and cumbersome nature of the electronic version have
21 severely frustrated public review. Pub. Res. Code § 21003(b) ("Documents prepared
22 pursuant to this division [are to] be organized and written in a manner that will be
23 meaningful and useful to decisionmakers and to the public."); AR 107:054952; AR
24 115:058571. In addition, the EIR is written in needlessly complicated technical jargon,
25 despite CEQA's mandate to use plain language. CEQA Guidelines § 15140.

26 El Segundo's comments demonstrate that the Project will exceed the 78.9 MAP
27 and 3.1 MAT capacity levels that the environmental analysis assumes as maximum
28 activity levels. See AR 119:060233-35; AR 137:067674-77. The comments also

1 demonstrate that the EIR is incomplete and inadequate because it: contains numerous
2 flaws and inaccuracies in its project description, relies on a problematic and incorrect
3 baseline for analysis, improperly ceases impacts analysis at the year 2015, contains a
4 flawed description and analysis of the No Project Alternative, and describes a different
5 project from the one actually approved. AR 111:056402-14, 056421-48; AR 119:060236-
6 47. El Segundo and others commented on the inadequate range of alternatives discussed,
7 and the improper exclusion of feasible alternatives – in particular, a true "regional air
8 traffic planning" alternative. AR 111:056414-21; AR 137:067682-83. El Segundo
9 further noted the inadequacy of mitigation commitments, and their lack of enforceability.
10 AR 111:056438-39. It also commented on the failure to adequately analyze the
11 environmental impacts of the Project on noise, land use, traffic, socio-economics, air
12 quality, hydrology and water quality, historical resources, biotic communities, endangered
13 and threatened species, wetlands, floodplains, coastal resources, energy supply and
14 natural resources, solid waste, art and architecture, earth and geology, hazardous
15 materials, human health and safety, and public utilities. AR 111:056439-506; AR
16 119:060247-75.

17 The comments submitted by the City of El Segundo at every step of the CEQA
18 process, which are supported by substantial evidence and extensive expert analysis, have
19 been largely ignored by Respondents. Respondents have instead attempted to bury El
20 Segundo and other members of the public in a mountain of paperwork which, though
21 voluminous, is largely non-responsive.

22 **IV. PROJECT APPROVAL**

23 In June 2004, the BOAC and the Los Angeles City Planning Commission
24 recommended approval of the Project and certification of the EIR. AR 125:062768-75.
25 In August 2004, the Los Angeles County Airport Land Use Commission ("ALUC") –
26 which was created by the State Aeronautics Act (Cal. Pub. Util. Code § 21001 *et seq.*)
27 and is responsible for ensuring compatibility in Los Angeles County between airports and
28 surrounding land uses, with an emphasis on noise and safety – held two public hearings.

1 After "considering numerous hours of public testimony and all of the evidence" before it,
2 the ALUC unanimously determined that the LAX Master Plan and related documents
3 were inconsistent with the Los Angeles County Comprehensive Airport Land Use Plan.
4 Pub. Util. Code §§ 21670.2(a), 21676; AR 140:069172. This determination was based on
5 the ALUC's finding that "the Master Plan results in negative noise and safety impacts on
6 a significantly different population than was assumed by the [Airport Land Use Plan]."
7 AR 129:064638. The Los Angeles City Council adopted a resolution at its December 7,
8 2004 meeting that overruled the ALUC's inconsistency determination. AR
9 140:069238.53 (lines 3-13); AR 140:069245. The next day, the City of Los Angeles filed
10 its Notice of Determination ("NOD") for its decision to approve the Project. AR
11 140:069244. On or about December 14, 2004, the Los Angeles City Council conducted a
12 second consideration of ordinances related to the approval of the Project and approved
13 those ordinances. AR 140:069363-405. Also on or about December 14, 2004, City of
14 Los Angeles Mayor James Hahn approved those Project elements that required mayoral
15 approval. *Id.*

16 **V. PRESENT LEGAL ACTION**

17 El Segundo timely filed this action in Los Angeles County Superior Court on
18 January 3, 2005. On February 22, 2005, this case was transferred to Riverside County
19 Superior Court, and assigned to Department 1, where it has been consolidated with three
20 other related cases. The City of Los Angeles prepared the Record of Administrative
21 Proceedings, which it certified on March 21, 2005.⁶ The Court has directed Respondents

22 ⁶ The Administrative Record prepared by Respondents was still incomplete when it was
23 certified. It was riddled with errors and has been very difficult to work with in the
24 briefing process. For example, Respondents included only every other page of key expert
25 reports submitted by the City of El Segundo, and reproduced other key El Segundo
26 documents reduced to 1/4 size, despite prior commitments to produce such documents at
27 full size. Petitioners were forced to waste valuable time during the briefing process
28 straightening out such record errors and correcting citations to the AR. The record's
pagination is now potentially confusing because of the insertion of missing pages (e.g.,
because a page was missing between pages 060433 and 060434 of the record,
Respondents added a page numbered 060433.1). Additionally, Respondents refused to
produce a searchable electronic version of any of the Administrative Record for

1 to lodge the cited volumes of the Administrative Record with the Court with their brief on
2 July 5, 2005.

3 ARGUMENT

4 I. STANDARD OF REVIEW

5 As the California Supreme Court has explained, the EIR is "the heart of CEQA"
6 and an "environmental 'alarm bell' whose purpose it is to alert the public and its
7 responsible officials to environmental changes before they have reached ecological points
8 of no return." Laurel Heights Improvement Assoc. of San Francisco v. Regents of the
9 Univ. of Cal., 47 Cal.3d 376, 392 (1988) ("Laurel Heights I") (citations omitted). The
10 EIR is the "primary means" of ensuring that public agencies "'take all action necessary to
11 protect, rehabilitate, and enhance the environmental quality of the state.'" Id. (quoting
12 Pub. Res. Code § 21001(a)). The EIR is also a "document of accountability," intended to
13 demonstrate to the public that the agency has considered the ecological implications of its
14 action and to inform the electorate of the basis of official actions. Id.

15 The central purpose of an EIR is to identify the significant environmental effects
16 of the proposed project and evaluate ways of avoiding or minimizing those effects. Pub.
17 Res. Code §§ 21002, 21002.1(a), 21061. CEQA also incorporates a substantive
18 requirement that the lead agency adopt feasible mitigation measures or alternatives that
19 can substantially lessen the project's significant environmental impacts. Pub. Res. Code
20 § 21002; CEQA Guidelines § 15002(a)(3). Respondents "bear[] the burden of
21 affirmatively demonstrating that, notwithstanding [the] project's impact on the
22 environment, [their] approval of the proposed project follow[s] meaningful consideration
23 of alternatives and mitigation measures." Mountain Lion Found. v. Fish and Game
24 Comm'n., 16 Cal.4th 105, 134 (1997).

25 This Court must determine whether Respondents prejudicially abused their
26 discretion either by failing to proceed in the manner required by law or by reaching a
27
28 Petitioners, despite the technological feasibility of doing so.

1 environmental impacts. It is therefore critically important that an airport master plan
2 EIR be based on an accurate assessment of airport capacity. The EIR prepared for the
3 LAX Master Plan is fatally flawed because it is based on an unsupported and inaccurate
4 assumption that the number of aircraft gates provided under Alternative D would serve no
5 more than 78.9 Million Annual Passengers ("MAP").⁷ See, e.g., AR 26:013074.
6 Although gate capacity can be calculated in a straightforward fashion based on a small
7 number of variables,⁸ LAWA failed to conduct such an analysis. LAWA instead derived
8 its 78.9 MAP number from self-serving projections about future decisions by airlines.
9 This results in an EIR that reports inaccurately low levels of environmental impacts. See,
10 e.g., AR 55:034962 (First Addendum to the EIR asserts that Alternative D's "lower level
11 of future airport activity provides for reduced environmental impacts"); AR 26:013852
12 (EIR asserts: "Fewer passengers, and resulting lower emissions from aircraft, are key
13 features of [Alternative D].").

14 LAX currently has 115 gate positions at the central terminal area buildings, and 48
15 remote gate positions. AR 10:004411-12 (LAX Master Plan). Alternative D calls for an
16 end state of 153 gates in a more efficient configuration at the terminal buildings, with no
17 remote gates. Id.; AR 34:017273 (Fig. ES-5, drawing of Project). The EIR assumes that
18 Alternative D will serve only 78.9 MAP, but never provides a capacity analysis
19 demonstrating the number of passengers that could actually be served under Alternative
20 D. In response to this problem, El Segundo retained Dr. Adib Kanafani, a professor of
21 civil and environmental engineering at the University of California, Berkeley, and one of
22 the world's foremost experts in aviation operations, the airline industry, and airport

23
24 ⁷ The EIR asserts that Alternative D would serve 78.9 MAP and 3.1 million annual tons
25 ("MAT") of cargo. AR 26:013074. LAWA's assumptions regarding MAP, MAT, and
26 the number of aircraft operations generally are all understated and without scientific basis
27 or evidentiary support. This discussion focuses on the passenger issue, as most of the
28 debate on this issue has been couched in terms of MAP.

⁸ The following variables are considered in the calculation of an airport's gate capacity:
(1) number of gates; (2) aircraft types that can be accommodated at each gate; (3) number
of seats per plane; (4) number of flights accommodated each day; (5) degree to which
flights are full; and (6) seasonal variations in air travel.

1 design, to perform the necessary calculations to ascertain the capacity of the gate
2 configuration proposed by Alternative D. AR 119:060233; AR 119:060439-455
3 ("Capacity Analysis of Aircraft Gate Positions, Los Angeles International Airport Master
4 Plan Alternative D").

5 This conservative analysis shows that Alternative D can physically handle 87 MAP
6 or more – significantly more than LAWA's assumed 78.9 MAP. AR 119:060447 (report
7 of Professor Kanafani). In addition, Alternative D would make substantial improvements
8 to other elements of the airport that would increase the airport's capacity. These factors,
9 combined with LAWA's own forecast that the demand for passenger service at LAX in
10 2015 is 97.9 MAP, make it unreasonable to conclude, on the basis of the record, that
11 Alternative D can or will limit traffic to the purported 78.9 MAP.

12 **I. The EIR's Assumption that Alternative D Would Serve Only**
13 **78.9 MAP Results in Significantly Understating the Level**
14 **of Aviation Activity that the Airport Could Serve, and Violates**
15 **CEQA's Mandate to Disclose and Analyze the Effects of**
16 **Reasonably Foreseeable Future Activities at LAX.**

17 An EIR must disclose, and discuss the environmental impacts of, the reasonably
18 foreseeable future activities on the site of the proposed project. Laurel Heights I, 47
19 Cal.3d at 396. In Laurel Heights I, the California Supreme Court held that the EIR for
20 moving medical research units to a section of a newly purchased facility of the University
21 of California, San Francisco was inadequate, because it failed to disclose future UCSF
22 activities anticipated to take place in other areas of the building. The Court rejected the
23 Regents' argument that the future activities need not be disclosed where they had not yet
24 been approved. It held that an EIR must disclose the impacts of future activities that were
25 "a reasonably foreseeable consequence" of the approval, and would "likely change the
26 scope or nature of the initial project or its environmental effects." Id.

27 Here, the EIR's assertion that Alternative D will serve just 78.9 MAP is
28 contradicted by the only analysis in the record that studied the physical capacity of
Alternative D. It is also contradicted by the failure of Alternative D to provide any
enforceable provision to protect against activity levels in excess of the "design" capacity

1 decision that is not supported by substantial evidence. Pub. Res. Code § 21168; Laurel
2 Heights I, 47 Cal.3d at 392. A prejudicial abuse of discretion occurs if the EIR omits
3 relevant information and thus precludes informed decision-making. Kings County Farm
4 Bureau v. City of Hanford, 221 Cal.App.3d 692, 712 (1990); Citizens to Preserve the Ojai
5 v. County of Ventura, 176 Cal.App.3d 421, 428 (1985).

6 As the record amply reflects, Respondents systematically presented incomplete
7 information, which resulted in a failure to disclose the full range and severity of the
8 impacts of the Project. Their certification of the EIR and approval of the Project
9 constituted a breach of CEQA and must be set aside.

10 **II. THE FUNDAMENTAL FLAWS IN THE EIR'S PROJECT DESCRIPTION**
11 **CAUSE THE EIR TO SYSTEMATICALLY UNDERESTIMATE THE**
12 **ENVIRONMENTAL IMPACTS OF THE PROJECT.**

13 The adequacy of an EIR turns on the accuracy of its project description. CEQA
14 Guidelines § 15124; Inyo County I, 71 Cal.App.3d at 193 ("An accurate, stable and finite
15 project description is the *sine qua non* of an informative and legally sufficient EIR.").
16 Respondents have failed to provide an accurate project description and, therefore, have
17 precluded legally adequate analysis of the Project's impacts, identification of feasible
18 alternatives to the Project, and mitigation of its significant environmental impacts. Pub.
19 Res. Code §21002.1(a); CEQA Guidelines §§ 15002, 15121. In particular, the EIR vastly
20 understates the capacity of the Project, which in turn results in its vastly understating the
21 Project's impacts. The project description also improperly truncates analysis at the year
22 2015, which means that many of the Project's impacts remain undisclosed and
23 unanalyzed. And certain projects are illegally segmented from the project description.
24 These errors, individually and in combination, result in an EIR that substantially
25 underestimates the Projects's impacts.

26 **A. The Project Description and Impacts Analysis Assume an Artificially**
27 **Low Capacity and Future Airport Activity Level Under Alternative D.**

28 Airport impacts such as noise, air pollution and traffic are tied directly to airport
capacity. As passenger and cargo operations at an airport increase so do the associated

1 of 78.9 MAP, in the face of LAWA's own projected "unconstrained demand" for
2 passenger service at LAX in 2015 of 97.9 MAP. AR 34:017256 (EIR aviation demand
3 projections); see also AR 34:017266 (Alternatives A and B "would fully meet the
4 projected demand for aviation services at LAX by accommodating 97.9 MAP and 4.17
5 million tons of cargo in 2015."). Yet the impacts analysis for Alternative D is based upon
6 the airport serving 78.9 MAP. As a result, the EIR fails to disclose to the public the
7 reasonably foreseeable scope of the activities at LAX, and the environmental impacts of
8 those activity levels. Similarly, the EIR's mitigation measures are designed for passenger
9 and aviation activity levels far below what the airport could actually serve under
10 Alternative D. This renders the EIR fundamentally flawed.

11 a. **LAWA Has Presented Alternative D as the "78.9 MAP
12 Alternative" Without Any Enforceable Mechanism to
13 Assure That It Would Not Substantially Exceed 78.9
14 MAP.**

15 LAWA presented Alternative D as consistent with the pledge by Los Angeles
16 Mayor James Hahn to maintain the airport at its existing capacity, or about 78 MAP. AR
17 26:013085 (Supplemental Draft EIS/EIR); AR 10:004360-61 (Master Plan); AR
18 134:066524 (Statement by James Ritchie of LAWA, at L.A. City Council Commerce,
19 Energy, and Natural Resources Committee, Oct. 7, 2004); AR 112:056944 (Oct. 8, 2001
20 press release describing Alternative D proposal as "end[ing] any expansion at LAX in
21 excess of 78 MAP . . ."); AR 113:057729 (press kit for Alternative D). The analysis of
22 major environmental impacts (air quality, noise, and traffic impacts, among others) hinges
23 on the assumed level of activities at LAX. Yet Alternative D includes no cap on
24 passengers, and no enforceable limit on operations.

25 According to LAWA itself, "Alternative D does not limit the number of
26 passengers at LAX." AR 49:029763 (Final EIR Responses to Comments). As LAWA
27 staff admitted to the City Council, the 78.9 MAP figure is "not a real law." AR
28 140:069238.47-38.48 (Transcript of Los Angeles City Council Meeting, December 7,
2004). "Alternative D does not place any caps on passenger and cargo activities." AR

1 49:029769 (responses to comments). As the EIR states, design factors such as the
2 number of gates at LAX are not "absolute limits on airport activity levels, but rather are
3 market-related thresholds that, if exceeded, would result in delays, inefficiencies, and
4 reduced levels of customer service." AR 39:020704; see also AR 26:013178 ("The
5 airport can accommodate additional aircraft and passengers beyond these levels [at
6 degraded levels of service].").

7 The number of passengers served under Alternative D would be controlled,
8 LAWA asserts, not by any enforceable mechanism, but by the configuration of aircraft
9 gates, and the market-based response of airlines to the new gates. AR 27:013182
10 (Supplement to Draft EIS/EIR). Thus the 78.9 MAP figure is premised on the notion,
11 which experience shows to be untrue, that once LAX gets crowded the airlines will just
12 stop flying people into it. This fundamental premise underlying the EIR's treatment of
13 Alternative D – that "market forces" would take care of limiting the number of
14 passengers served at LAX to 78.9 MAP – is belied by the record, the history of LAX, the
15 independent gate capacity analysis performed by an airport expert and submitted to
16 LAWA, projected demand for passenger service, and by common sense.

17 b. **LAX Has for Many Years Served Far More Passengers
18 Than It Was Designed to Serve; Overcrowding Has Not
19 Stopped the Expansion of Operations.**

20 A look at the history of LAX makes it clear that LAX is quite capable of exceeding
21 its design capacity, and there is much evidence in the record pointing to the likelihood
22 that it will continue to do so. As described by LAWA itself, between the mid-1980s and
23 the present, LAX grew far beyond what the facilities were initially intended to serve. In
24 1974, LAWA states, "the City of Los Angeles established a capacity limit of 40 MAP at
25 LAX, and commercial airline services at LAX were planned accordingly." AR
26 39:020703 (Final EIR Topical Response TR-GEN-3 re: Control of Activity Levels at
27 LAX). Subsequently, additional capacity was added, most recently in the mid-1980s.
28 But, "improvements necessary to accommodate the projected growth to 65 MAP at LAX
by 2000 did not occur. Given that the projected growth to 65 MAP did occur, and was

1 actually slightly exceeded at 67 MAP in 2000, the existing facilities and infrastructure at
2 LAX are not adequate to effectively manage the existing level of activity⁹. . . .
3 [P]assenger activity levels at LAX are projected to reach approximately 98 MAP in 2015,
4 and the proposed LAX Master Plan is intended and designed to manage activity levels
5 anticipated to occur by then." AR 39:020702.

6 As El Segundo has pointed out, the continuing incremental growth in LAX
7 operations has occurred without adequate environmental analysis or mitigation. See
8 Argument Section II(C), below. In the EIR, LAWA explains: "Additional growth beyond
9 40 MAP was projected in 1981 to occur and the preparation of a master plan to address
10 such growth was proposed; however, several years have since elapsed and the anticipated
11 growth has occurred without the benefit of a master plan and accompanying EIR or EIS."
12 AR 39:020705.

13 The lesson from this history is that in order to adequately disclose, and prepare
14 mitigation for, the impacts of the large-scale improvement plan contemplated in the
15 current Master Plan, LAWA must analyze the impacts of a level of operations that is
16 reasonably foreseeable; that is, greater than the "design" capacity of 78.9 MAP. CEQA
17 requires that the EIR analyze the "reasonably foreseeable" impacts of a project, including
18 the level of expanded activities that is reasonable to expect in the future as the project
19 continues to expand. Laurel Heights I, 47 Cal 3d at 396. Here, the history of this airport,
20 LAWA's own projected passenger demand of 97.9 MAP, and the admissions by LAWA
21 that 78.9 MAP is a "design" capacity but not a limit or a cap, make it unreasonable to
22 limit the analysis of impacts to levels of operations serving only 78.9 MAP. LAWA
23 should have assessed the physical capacity of the gates in its Alternative D design, and
24 disclosed the actual reasonably foreseeable activity levels under Alternative D. This it
25 failed to do.

26
27 ⁹ Several pages later in the Final EIR, LAWA states that LAX was not actually designed
28 for "only" 40 MAP, but rather a number of specific improvements were made to enable
LAX to accommodate the anticipated growth over time. AR 39:020705.

1 **2. The Actual Capacity of LAX Under Alternative D Exceeds 78.9
2 MAP, and the Provisions of Alternative D Itself Will Prevent
3 "Market Forces" From Limiting the Operations or Passengers
4 Served.**

5 The record contains no gate capacity analysis by LAWA – i.e., no calculation,
6 based on projected numbers of aircraft and other variables, of the number of passengers
7 that could actually be accommodated under Alternative D. AR 137:067687-88
8 (description of LAWA analysis, and rebuttal of LAWA assertion that EIR included gate
9 capacity analysis); AR 135:066914-15 (testimony of LAWA staff at October 20, 2004
10 Los Angeles City Council Meeting: "So many gates can only be filled up at a certain rate,
11 and we have tracked that through *business models*." (emphasis added). Although LAWA
12 asserts that its documents contain an analysis of gate capacity (AR 48:028576), this
13 assertion is based on its use of "business models," and focuses on a predicted market
14 response, not an evaluation of physical capacity. As explained by airport expert Adib
15 Kanafani, Ph.D., LAWA's evaluation of Alternative D demonstrated only that the airport,
16 as designed under Alternative D, could handle 78.9 MAP *or more*. AR 137:067687-88;
17 AR 137:067695 (LAWA's "market analysis" or assumptions about market behavior,
18 while "rather daring," "has very little to do with the capacity analysis" that El Segundo
19 has submitted). LAWA never conducted any analysis that showed the airport under
20 Alternative D cannot or will not handle more traffic, and its analysis is "not sufficient to
21 prove that the gates will limit traffic to 78.9 MAP." AR 137:067687-88. As described
22 below, the actual capacity of the airport under Alternative D is in fact not 78.9 MAP. It
23 could actually serve far more.¹⁰

24
25
26 ¹⁰ The last-minute revisions to the Specific Plan as part of the "Consensus Plan"
27 adopted by the Los Angeles City Council included a requirement for an annual "aviation
28 activity analysis." When the passengers are forecasted to exceed 78.9 MAP, more studies
are to be conducted. AR 55:034935. This "restudy" provision fails to assure that 78.9
MAP will not be exceeded; indeed, it appears to contemplate such an occurrence, and
does nothing to prevent it.

a. A Meticulous Gate Capacity Analysis Indicated that a Conservative Estimate of the Capacity of Alternative D Is 87 MAP or More.

In his report, Dr. Kanafani meticulously documented the assumptions used for his capacity analysis, including an explanation of his examination of various assumptions used by LAWA in its Master Plan, some of which he determined were erroneous, outdated, or unreasonable. His approach was extremely conservative, in that he consistently chose to input into his calculations only the most reasonable assumptions and selected input that would, if anything, understate the actual capacity. The input utilized in Dr. Kanafani's calculation included the type of aircraft flying at LAX, the seating on those aircraft and number of seats filled (load factors), and seasonal patterns of aviation activity. Dr. Kanafani conducted an analysis demonstrating the range of results possible depending on the particular assumptions for each variable used in the calculation, providing graphs demonstrating the ranges derived. He then identified the most reasonable input assumptions, based on a conservative approach, and concluded as follows:

[W]e adopt the Master Plan's assumed average load factors of 73.46%. We also adopt LAX's prevailing Annual Conversion Factor of 310 [translating daily passengers to annual passengers], and conservatively do not increase it to reflect possible spreading of the peak as traffic grows in the face of capacity constraints. We also adopt the higher range of seating of aircraft as described in the report as a better representation of the capacity of the gate positions, noting that it too is conservatively kept within the range of possible seating configurations rather than its top values. With that the capacity is estimated to be 87.24 MAP, as shown by the italicized number in Table 11.

AR 119:060447. Thus, although Professor Kanafani found many of LAWA's assumptions questionable, for purposes of the analysis he used LAWA's own assumptions, both to be conservative and to highlight the effect of changing only the most obvious errors in LAWA's assumptions. His calculations resulted in a conservative conclusion setting the gate capacity at 87 MAP or more. AR 119:060455.

The EIR shows that Alternative D could handle about the same number of aircraft operations in 2015 as Alternative C, which according to LAWA would serve 89 MAP.

only result in adjusting the capacity estimates upwards." AR 137:067699. Similarly, LAWA points out that Dr. Kanafani does acknowledge the impacts of certain market factors, a point he agrees with - if he were to reject any assumed market constraints (such as a lack of demand for 3 a.m. flights) then the estimated gate capacity would of course only be higher. AR 137:067689 ("If [LAWA] is willing to adjust its traffic forecast to include substantial operations between 12 and 6 a.m. . . then we would adjust the capacity accordingly, i.e. upwards!"). As Dr. Kanafani further explains: "The issue is not whether market factors affect traffic or not. That much is understood. The issue is the ability of the gates to handle traffic that is much higher than the Master Plan stipulates. The Master Plan [passenger projection] is based on market analysis and not on capacity analysis." AR 137:067689.

Rather than responding with any kind of capacity analysis, LAWA characterizes Dr. Kanafani's results as consistent with its own market projections. AR 48:028769. This is not true. AR 137:067690 (Dr. Kanafani's analysis demonstrates that one has to rely on unreasonable assumptions regarding load factors, seating configuration, and/or the annual conversion factor in order to conclude that Alternative D's capacity would be 78.9 MAP). LAWA fails to understand or simply mischaracterizes the Kanafani approach, which incorporates a sensitivity analysis and provides a range of possible results in order to demonstrate the effect of specified input assumptions on the calculation of the gate capacity. Id. As Dr. Kanafani pointed out, the lower range of his capacity estimates derive from assumptions that are incorrect and not reasonable. AR 137:067692. He stated:

The purpose of the sensitivity analysis is to show how capacity can vary with factors such as aircraft seating, load factors, and annualization rates. The fact that some of these numbers can result in a figure of 73 MAP does not mean that that is the capacity of the airport. In the estimate of capacity used in our original comments we use the load factors adopted in the Master Plan - 72% to 73.4%, the annualization factor of 310 which is a conservative estimate given that it is the current value and likely to increase rather than decrease in the future, and seating configurations based on aircraft currently in use at LAX or on order by airlines flying at LAX. Our

AR 26:013074. The difference in the annual passenger projections calculated by LAWA for Alternatives C and D stems primarily from LAWA's assertions that under Alternative D, the airlines would fly smaller planes with fewer seats and fewer passengers. Thus, in deriving its passenger projections, LAWA assumes larger numbers of small commuter planes under Alternative D. AR 10:004502 (LAX Master Plan, Table 3.3-1 assuming for Alternative D annual passenger operations of 713,100 of which 182,800 were commuters, and for Alternative C, 714,000 passenger operations of which only 108,900 were commuters); AR 119:060441.1-42 (Table 1 and discussion). This device is, however, inconsistent with the Master Plan projection that airlines would be reducing the number of commuter flights to LAX. AR 10:004491 ("Commuter operations would likely be reduced from 1996 levels . . . in order to maximize the number of passengers that could be served with a limited number of operations."). Elsewhere, LAWA uses an incorrect conversion factor to convert peak day operations to annual operations, a factor which is at odds with both current reality and LAWA's assumptions regarding future trends, and which results in an incorrectly low passenger calculation. AR 119:060436 (Table 2 and discussion); AR 119:060442 (Table 2 and discussion). LAWA's analysis also assumes the use of outdated aircraft and old seating configurations, rather than projecting the future use of aircraft currently on order by airlines. AR 119:060435; AR 119:060440.1-41; AR 119:060442-43; AR 119:060444.1-47; AR 137:067693 (there is "no basis" for LAWA's assumption that older aircraft types will be retained and newer ones eliminated); AR 137:067694 (identifying inconsistent assumptions in Master Plan regarding the number of seats offered).

Either because it fails to understand the scientific analysis conducted by Dr. Kanafani, or because it simply has no response, LAWA fails to respond in a meaningful way to Dr. Kanafani's thoughtful, well-documented, and conservative approach. LAWA quibbles, for example, with Dr. Kanafani's research regarding the seat capacity of aircraft serving the LAX market (AR 48:028769) but as Dr. Kanafani points out, his data are both more accurate, and more conservative. Using LAWA's proposed seating figures "can

estimate of 87 MAP is conservative and based on many assumptions in the Master Plan that we did not question. As mentioned elsewhere [in this report] we question some of these assumptions and believe that if anything, the capacity of the Master Plan could be even higher than our original estimate.

AR 137:067697.

b. Other Aspects of Alternative D Will Also Push The Capacity of LAX Under Alternative D Beyond 78.9 MAP.

LAWA's responses to the Kanafani analysis claim that "market forces" and overcrowding would hold the number of passengers at LAX to 78.9 MAP, or approximately the same capacity as the No Project Alternative. As Professor Kanafani points out, LAWA's "market factors" approach is smoke and mirrors. Dr. Kanafani showed that all elements of Alternative D point to a significant expansion of the capacity of LAX to well beyond 78.9 MAP. Moreover, the proposed timing of the improvements contemplated in Alternative D will itself prevent "market forces" from responding to the new gate configuration in the way that LAWA posits.

Three major elements of LAX affect capacity, in addition to the aircraft gate positions, discussed above. These are: the airfield (runways and taxiways), airport access and parking, and passenger terminals. Alternative D proposes to maintain or increase the existing airport capacity in all three areas. AR 119: 060433.1-34; AR 119:060436.1-37. On the airfield, Alternative D would enlarge the separation between parallel runways in order to allow for the insertion of a centerline taxiway. This will reduce landing and taxiway delays, enhancing the airport's ability to serve more flights safely, and accommodate New Large Aircraft ("NLAs"). AR 26:013189-90; AR 119:060433.1; see AR 34:017259 (Final EIR statement that "Inefficient runways and taxiways are another barrier to accommodating projected future aviation demand.").

Alternative D would increase the terminal space by about 60 percent - adding more than 2.5 million square feet, a significant expansion clearly accommodating far more passengers than the existing terminal space. AR 26:013175 (Table S3-2); AR 119:060436.1; see AR 34:017258. And finally, airport access and parking facilities will

1 be vastly improved. LAWA has identified the ground access system as the factor that
2 currently limits the capacity at LAX. AR 34:017520. The addition of a ground
3 transportation center ("GTC"), other transportation facilities, and expanded roads, as well
4 as the addition of a new 9,000 space on-airport rental car parking structure (known as the
5 RAC) and 5,000 new employee parking spaces (in a new 12,400-stall parking garage at
6 LAX's west end), will all expand the airport's capacity, allowing the airport to serve more
7 passengers. AR 119:060304 (expert traffic engineer points out that the number of
8 employee parking spaces Alternative D proposes to provide exceeds by 1,200 the number
9 needed to accommodate the employee parking demand projected in the EIR itself); AR
10 26:013175; AR 26:013192-93; AR 119:060437; AR 34:017273.

11 In addition, LAWA plans to continue using the existing remote gates at LAX's far
12 western end (just south of the northern runway complex), despite its assertions that
13 Alternative D would include only 153 gates. El Segundo asked LAWA why its
14 documents did not clearly require demolition of the western remote gates, and pointed out
15 that continued use of the gates would further increase capacity beyond the 153-gate
16 assumptions used in the environmental analysis. AR 48:028757-58; AR 119:060239-40.
17 LAWA's response indicates that it plans to put those remote gates to continued use for
18 storage, and during departure holding and arrival gate clearance holding, "in order to free
19 contact gates for use by other airlines that have an immediate need for a contact gate."
20 AR 48:028585-86 (response by LAWA also asserting the gate positions are not being
21 removed because of the environmental effects); see also AR 48:028402 (Southern
22 California Association of Governments ("SCAG") comments). This use of the remote
23 gates would increase capacity by freeing up contact gates currently used for these
24 activities. AR 137:067690 (Dr. Kanafani questioning, "If this is not an increase in
25 contact gate capacity, then what is?").

1 c. **Alternative D Will Provide Capacity for More than 78.9
2 MAP Because It Will Provide More Than the Proposed
3 153 Gates Through the End of the Master Plan.**

4 Nothing in the LAX Master Plan or EIR indicates that there will be any reduction
5 in the number of aircraft gates from the current 163 until the Master Plan is built out.
6 Until then, the airport will have more gate positions than even LAWA claims are needed
7 to serve 78.9 MAP. El Segundo pointed this out in its comments, but LAWA provided no
8 response. AR 48:028580-81 (comment) and AR 48:028581 (LAWA response to
9 comment failing to address issue). More importantly, if there are excess gates, then gate
10 availability provides no capacity constraint, and consequently airlines will have no reason
11 to make any of the market-based adjustments assumed in the Master Plan. Given that
12 LAWA relied on these market-based adjustments by airlines to justify its forecast of 78.9
13 MAP, the very basis of Alternative D is violated by its own lack of provisions to
14 eliminate gates before 2015.

15 Under Alternative D, air traffic and passenger increases will proceed unhindered
16 by any capacity constraint, and as LAX makes improvements, its attractiveness relative to
17 other airports in the area will increase, rather than decrease, effectively negating LAWA's
18 announced scheme of capacity control by "market factors." The problem with LAWA's
19 approach is that once the airport facilities are built and are used by the airlines, then
20 federal law would preempt the airport from restricting the use of the facilities. See AR
21 48:028748 ("There is no federal law or regulation that would permit FAA or a local
22 airport sponsor to prohibit the use" of LAX); 49 U.S.C. § 47524 (legal restriction on
23 local regulation of Stage 3 aircraft). Once the facilities are in place, they will be utilized,
24 as experience shows, far beyond their "design" capacity.

25 **3. Summary**

26 Based on the only capacity analysis in the record, the Project will result in a
27 substantial increase in capacity at LAX, far greater than LAWA's stated 78.9 MAP. The
28 capacity-enhancing improvements to airport facilities, combined with the lack of any
mechanism in Alternative D to reduce the number of gates to below 163 until buildout,

1 and a historic background of continuous incremental expansion of LAX over many years,
2 render LAWA's assertion that Alternative D will serve only 78.9 MAP little better than a
3 farce. It is reasonably foreseeable based on the evidence in the record that the airport,
4 under Alternative D, will serve 87 MAP or more. The EIR's assumed capacity of 78.9
5 MAP is far too low, and as a result the EIR violates CEQA by failing to disclose and
6 analyze the reasonably foreseeable environmental impacts of Alternative D.

7 **B. The EIR Is Legally Inadequate Because its Project Description
8 Improperly Truncates Impacts Analysis at the Year 2015.**

9 The EIR's analysis of environmental impacts extends only to 2015, and then
10 abruptly stops. By selecting 2015 as the "planning horizon," Respondents have yet again
11 violated CEQA's mandate to consider reasonably foreseeable impacts. As the Laurel
12 Heights I court held: "[A]n EIR must include an analysis of the environmental effects of
13 future expansion or other action if: (1) it is a reasonably foreseeable consequence of the
14 initial project; and (2) the future expansion or action will be significant in that it will
15 likely change the scope or nature of the initial project or its environmental effects." 47
16 Cal.3d at 396.

17 In City of Santee v. County of San Diego, the court held that an EIR prepared for a
18 "temporary" jail facility, which assumed a seven-year lifetime, was inadequate. 214
19 Cal.App.3d 1438, 1450-55 (1989). In that case, the record failed to demonstrate any
20 assurance that the facility would operate for only seven years and, in fact, indicated that
21 future action on the facility was contemplated. Id. at 1454. Similarly here, the record
22 shows that LAX will continue to operate, and most probably continue to expand, well
23 beyond 2015. Compare Kings County Farm Bureau, 221 Cal.App.3d at 737-39 (twenty-
24 year planning horizon for a cogeneration plant appropriate in the absence of evidence
25 demonstrating an intention to operate the facility for more than twenty years).

26 The failure of the EIR to analyze impacts beyond 2015 results in an EIR that is
27 inadequate for "fail[ing] to discuss the anticipated future uses of the . . . facility and the
28

1 environmental effects of those uses," which are "reasonably foreseeable." Laurel Heights
2 I, 47 Cal.3d at 399.

3 **1. The 2015 Planning Horizon Results in Omission of Reasonably
4 Foreseeable Impacts.**

5 Respondents' use of a 2015 planning horizon violates CEQA's mandate to
6 consider reasonably foreseeable impacts of the Project. It is clearly foreseeable that
7 operations at LAX will continue past 2015, and expand significantly after 2015. See AR
8 71:041468 (graphically depicting LAX's historical "explosive growth"); Argument
9 Section II(A), above. To analyze the impacts that will occur at LAX in the foreseeable
10 future, the EIR must look beyond 2015. See FAA Advisory Circular No. 150/5070-6A
11 re: Airport Master Plans ("the environmental documentation [for a Master Plan] must
12 consider the cumulative impacts of the approved short-term development over a longer
13 development period." (Armi Decl., Exh. 1 at ES 054). Impacts on air quality, noise and
14 traffic, for example, will only intensify once the Project is fully implemented and as
15 airport operations increase. See AR 34:017598-601 (describing Project elements to be
16 implemented at each phase). These ongoing and increasing impacts must be
17 acknowledged and evaluated in the EIR.

18 **2. A 20 to 25-Year Planning Horizon is the Minimum Necessary to
19 Permit Consideration and Mitigation of Reasonably Foreseeable
20 Environmental Impacts.**

21 Respondents credit the current size and status of LAX to long-term planning for
22 the airport conducted in the distant past. AR 39:020799 ("Much of LAX's existing
23 competitive advantage is due to the foresight of the City thirty or forty years ago building
24 sufficient facility capacity to handle such long-term growth in aviation demand."). Given
25 their faith in such long-term planning, Respondents themselves should advocate a more
26 forward-thinking planning horizon in the current Master Plan. Instead, Respondents
27 have, without justification, selected a very short (effectively ten-year) horizon ending in
28

1 2015. Responding to comments about the inappropriateness of this short time frame,
2 Respondents acknowledge that “[t]he use of 2015 for the LAX Master Plan is not a
3 regulatory mandate,” and rely on the conclusory statement that 2015 represents a
4 “reasonably foreseeable planning horizon that takes into account the available forecasts
5 for regional aviation demands and provides a time frame within which the City can define
6 the necessary improvements for LAX and integrate those improvements into the long-
7 term capital facilities planning and funding for the airport.” AR 39:020702.

8 Claiming that ten years represents a “reasonably foreseeable planning horizon”
9 does not make it so. In fact, Respondents initially, in 1995, established a twenty-year
10 planning horizon for the Master Planning process. AR 34:017467 (noting that Master
11 Plan process began in 1995 and planned for 2015). Respondents failed, however, to
12 advance their planning horizon to account for delays encountered in the Master Plan
13 process between 1995 and 2005.

14 A 20 to 25-year planning horizon is the minimum necessary to account for the
15 reasonably foreseeable impacts of the Project, and enable Respondents to mitigate them.
16 See Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal.App.4th 182, 195
17 (1996) (invalidating EIR that failed to discuss environmental effects of supplying water to
18 project beyond five years into the future); Laurel Heights I, 47 Cal.3d at 396 (EIR must
19 analyze environmental effects of reasonably foreseeable future expansion). Unlike the
20 arbitrary selection of 2015, a 25-year planning horizon has meaningful outside support.
21 In its 2001 Regional Transportation Plan (“RTP”), which represents a comprehensive
22 planning document for the region’s transportation needs, Southern California Association
23 of Governments (“SCAG”) set the year 2025 as its planning horizon. See AR
24 34:017758.¹¹ Given Respondents’ repeated claims that Alternative D is designed to be
25 consistent with the RTP, they should rely on the same planning horizon in the Master Plan
26 as SCAG uses in the RTP. AR 39:020752 (“Alternative D . . . is designed to serve

27 ¹¹ Similarly, SCAG selected 2020 as its planning horizon in its 1998 RTP, and 2030 in
28 its 2004 Draft RTP. See AR 34:017488, 017486.

1 aviation activity at LAX consistent with the SCAG 2001 RTP selected aviation
2 scenario”); see also AR 34:017546, 017580.

3 **3. The Inadequacy of the Impacts Analysis Under the 2015
4 Planning Horizon Is Exacerbated By LAWA's Long History of
5 Failing to Prepare Adequate and Timely Master Plans.**

6 LAWA has a long history of operating LAX in the absence of, or under an entirely
7 outdated, Master Plan. Since its establishment in 1928, LAX has undergone only one
8 comprehensive Master Plan development process, in 1956. AR 34:017463-64 (“In 1956,
9 a new Master Plan for a ‘jet-age’ airport was developed. . .”); AR 133:066002 (lines 19-
10 21) (LAWA staff’s Sept. 29, 2004 acknowledgment before City Council that “[t]he last
11 comprehensive update of LAX was completed in 1956, almost 50 years ago”). The only
12 other planning document adopted for LAX was the 1981 Interim Plan for LAX, which is
13 simply a seven-page document that does no more than state broad goals for and statistics
14 about the airport and its theoretical development. AR 57:036257-63 (1981 Interim Plan).
15 By its own admission, the Interim Plan is only a “short term, general guide” for the
16 development of LAX, and was to be followed by “a new plan to be initiated upon
17 adoption of the Interim Plan.” *Id.* This follow-on plan, which never came, was to address
18 “[m]ajor policy issues with regard to Airport capacity, roadway access, adjacent land use
19 compatibility and environmental impacts.” AR 57:036258; see AR 34:017467. Thus,
20 Respondents’ new LAX Master Plan is the first in nearly fifty years, and only the second
21 in the airport’s history. Given the infrequency with which Respondents conduct master
22 planning for LAX, it is wholly inappropriate for the plan and EIR to look out only ten
23 years.

24 Notwithstanding the absence of a general planning document, Respondents have
25 made substantial improvements and additions to LAX over the years. For example, two
26 major cargo facilities were developed in the 1960s and 1980s, the Tom Bradley
27 International Terminal was constructed in 1984, and a new air traffic control tower was
28 added in 1996. AR 34:017464. Major facility improvements were made beginning in the
late 1970s, after BOAC approved \$500 million for facility improvements for the 1984

1 Summer Olympic Games in Los Angeles. *Id.* Other recent examples of incremental
2 expansion projects are discussed in Argument Section II(C), below. All of these
3 improvements, and the associated increases in passenger and cargo capacity, have
4 occurred under an entirely outdated Master Plan.

5 Respondents themselves repeatedly cite the historical absence of a master plan
6 and EIR as a justification for their current failure to address existing environmental
7 impacts. AR 39:020705 (LAWA acknowledges “continued growth in activity that has
8 occurred at LAX over the past two decades without the benefit of any substantial, airport-
9 wide improvements has resulted in inefficiencies and impacts to surrounding
10 communities.”); *id.* (LAWA claims that unless mitigation measures are implemented as
11 part of an EIR, “LAWA and FAA are restricted by federal law in the expenditure of
12 airport funds within off-airport areas for addressing environmental impacts”).¹² Given
13 Respondents’ assertions that their history of inadequate planning has rendered them
14 unable to mitigate the airport’s impacts, it is especially troubling that they would now
15 select a planning horizon that ensures the same planning paralysis in the future.

16 If Respondents do not complete a comprehensive review of the long-term
17 implications of its Master Plan, it will result in significant unmitigated impacts in the near
18 future. Rather than repeating this history of short-sighted planning, Respondents should
19 have followed CEQA’s mandates and used the master planning process to plan well into
20 the future. See Stanislaus Natural Heritage Project, 48 Cal.App.4th at 195; Laurel
21 Heights I, 47 Cal.3d at 396.

22 ¹² Petitioner El Segundo does not agree with Respondents’ position that they are unable
23 to implement mitigation measures outside of the Master Plan process. It would be more
24 accurate to say that Respondents are unwilling to undertake programs that benefit their
25 neighbors, such as expanded residential noise treatment and air quality improvements,
26 unless the Master Plan is approved. Respondents themselves acknowledge that they have
27 pursued mitigation measures outside of the Master Plan in the context of land acquisition
28 at the Manchester Square and Belford areas. AR 39:020754 (“The land acquisition at
Manchester Square and Belford areas is currently underway . . . and will be completed
with or without approval of the LAX Master Plan”).

1 **4. The Use of 2015 as the Planning Horizon Undercuts the
2 Consideration of the Regional Alternative.**

3 Not only does selection of 2015 as the planning horizon result in a failure to
4 disclose reasonably foreseeable project impacts at LAX, it undermines consideration of
5 the regional alternative to serving aviation demand, discussed in Argument Section
6 III(A)(2)(b), below. The development of a regional airport system requires long-term
7 planning and vision to constrain LAX and encourage growth at other airports. Such
8 leadership would pay off in the future by spreading the benefits and burdens of airport
9 operations throughout the region. By insisting upon an artificially circumscribed
10 perspective, Respondents preclude meaningful consideration of, much less commitment to,
11 a long-term solution to meeting the region’s airport needs. A focus on only the next
12 decade of operations necessarily results in looking only at short-term fixes. This, in turn,
13 leads Respondents to focus resources on expanding LAX, rather than committing to seek
14 responsible long-term solutions at the region’s other airports. If a longer planning
15 horizon were employed, other options, such as perhaps development of Palmdale Airport,
16 could be more reasonably evaluated as alternatives to Respondents’ continued focus on
17 LAX. AR 111:053936.0045 (El Segundo 2001 letter exhibit 2(A) at 25); AR
18 101:052596 (Oct. 1, 1999 “Palmdale Airport Study”); AR 91:049203 (Aug. 31, 1998
19 LAWA report identifying feasibility of developing Palmdale within 10 to 20 years). For
20 all the above reasons, the EIR’s use of a 2015 horizon fails to pass muster under CEQA.

21 **C. Respondents Illegally Segmented LAX Projects from the Master Plan.**

22 As discussed in Argument Sections II(A) and II(B), above, LAX operations,
23 capacity and impacts have grown tremendously in recent years, without the benefit of any
24 long-range comprehensive plan for expansion of the airport. AR 133:066002 (LAWA
25 staff statement that last comprehensive update for LAX was in 1956); AR 71:041468
26 (graphically depicting LAX’s “explosive growth”). This growth at LAX is largely
27 attributable to Respondents’ practice of approving airport projects outside of any Master
28 Plan process. Such projects have recently included construction of new remote terminals

1 and passenger boarding facilities, expansion of existing passenger terminals, expansion of
2 cargo facilities, airfield modifications, and expansion of automobile parking at the airport.
3 These piecemeal projects have furthered the long-term development goals at the airport,
4 and should therefore fall squarely within the scope of the Master Plan. However, the
5 environmental impacts of these capacity-enhancing projects are neither evaluated nor
6 mitigated as part of the Master Plan in the EIR.

7 CEQA forbids this unlawful segmentation of expansion projects. See CEQA
8 Guidelines § 15378(a) (defining "Project" as "the whole of an action"); Arviv Enter., Inc.
9 v. South Valley Area Planning Comm'n, 101 Cal.App.4th 1333, 1336 (2002) (EIR
10 necessary to avoid segmenting review of five already built houses from sixteen other
11 houses later proposed by the same party); Bakersfield Citizens for Local Control v. City
12 of Bakersfield, 124 Cal.App.4th 1184, 1203-04 (2004) (environmental study of partially
13 completed project required in part because it could compel additional mitigation and
14 project modifications); Bozung v. Local Agency Formation Comm'n, 13 Cal.3d 263, 283-
15 84 (1975) (CEQA mandates that "environmental considerations do not become
16 submerged by chopping a large project into many little ones"); San Joaquin
17 Raptor/Wildlife Rescue Ctr v. County of Stanislaus, 27 Cal.App.4th 713, 729-35 (1994)
18 (CEQA prohibits omission of project elements from environmental analysis); Orinda
19 Assoc. v. Bd. of Supervisors, 182 Cal.App.3d 1145, 1171-72 (1986) ("A public agency is
20 not permitted to subdivide a single project into smaller individual subprojects in order to
21 avoid the responsibility of considering the environmental impacts of the project as a
22 whole."). As one court recently emphasized in rejecting an analogous attempt by an
23 agency to avoid reviewing the impacts of an entire expansion project:

The EIR is intended to furnish both the road map and the environmental price tag for a project, so that the decision maker and the public both know, before the journey begins, just where the journey will lead . . . Here, the Port . . . ha[s] reduced CEQA to a process whose result will be largely to generate paper, to produce an EIR that describes a journey whose destination is already predetermined.

1 Natural Res. Def. Council v. City of Los Angeles, 103 Cal.App.4th 268, 271-72 (2002)
2 ("NRDC") (internal quotation marks omitted).

3 Respondents acknowledge that the Master Plan should be "a broad policy
4 statement regarding the conceptual strategic framework for future improvements at LAX
5 and [] working guidelines to be consulted by LAWA as it formulates and processes future
6 site-specific projects under the LAX Master Plan Program." AR 10:004338 (Master Plan
7 Preface); see also FAA Advisory Circular No. 150/5070-6A re: Airport Master Plans
8 (master plan represents the "planner's concept of the long-term development of an
9 airport.") (Armi Decl., Exh. 1 at ES 007). They also claim that the Master Plan "accounts
10 for the growth of the airport since 1984." AR 10:004353 (Master Plan Executive
11 Summary). However, the EIR and Master Plan fail to live up to these standards. Instead,
12 Respondents have consistently approved piecemeal expansion of LAX outside the Master
13 Plan process and without adequate environmental review.

14 The result of this CEQA violation is obvious: LAX operations have continued to
15 expand and the associated environmental impacts have not been mitigated. The EIR takes
16 the approach of assuming that all impacts from such incremental expansion, are separate
17 from the Master Plan and need not be addressed in the EIR. See, e.g., AR 39:020705
18 (Topical Response Gen-3, taking the position that no mitigation is or need be made
19 available for environmental conditions that are not the result of Master Plan project as
20 defined by LAWA); AR 39:020766 (Topical Response TR-N-4.1, taking the position that
21 noise associated with current activities at LAX is not the result of the proposed project
22 and is therefore beyond the scope of the EIR's review and not eligible for mitigation).
23 This narrow definition of the Project improperly minimizes the impacts disclosed, in clear
24 violation of CEQA.

25 **1. Respondents Have Proceeded with Numerous Piecemeal Approvals During the Master Plan Process.**

26 Rather than waiting for a Master Plan to set the future direction for LAX, LAWA
27 has approved a series of significant projects to expand LAX's capacity to accommodate
28

1 additional passengers and cargo. Some of the most significant examples that the City of
2 El Segundo has been able to uncover are described below. LAWA did not voluntarily
3 acknowledge that these projects had been implemented, and has reluctantly done so only
4 when faced with evidence put forth by the City of El Segundo. El Segundo obtained this
5 information with great difficulty, through its painstaking monitoring of LAX activities
6 and numerous requests for documents made under the California Public Records Act. AR
7 69:040974; AR 69:041002; AR 77:043927; AR 102:052847; AR 109:055760; AR
8 112:057027; AR 113:057868; AR 119:060128; AR 119:060175; AR 120:060634
9 (California Public Records Act requests).

10 These LAWA projects were improperly approved and undertaken outside of the
11 Master Plan process and without the necessary CEQA review. See AR 111:056936.0126-
12 55 (1999 Complaint filed by the City of El Segundo detailing LAWA's pattern and
13 practice of violating CEQA by pursuing piecemeal approvals outside the Master Plan
14 process, City of El Segundo v. Bd. of Airport Comm'rs, et al., Superior Court, Los
15 Angeles County – Case No. BC 220609); AR 111:056431-38 (City of El Segundo's
16 September 18, 2001 comment letter); AR 119: 060236-39 (City of El Segundo's
17 November 4, 2003 comment letter). As a result, LAWA has not acknowledged, much
18 less mitigated, the environmental impacts of these projects.

19 As discussed in Argument Section IV, below, this problem is further exacerbated
20 by the fact that the EIR includes the piecemeal projects in the definition of the No Project
21 Alternative, and not the definition of Alternative D or any of the other build alternatives.
22 See AR 28:014193-96 (explaining that various improvements undertaken during the
23 Master Plan process "were accounted for in the Draft EIS/EIR as part of the future No
24 Action/No Project alternative."). This contributes to one of the EIR's pervasive and most
25 serious flaws: overstating the capacity increase and environmental impacts associated
26 with the No Project Alternative relative to the build alternatives, while understating the
27 relative impacts of the Project.
28

1 **a. Commuter Terminal Projects**

2 During the Master Plan process, LAWA permitted the construction of two new
3 remote passenger terminals to serve commuter flights: the American Eagle Terminal with
4 13 aircraft positions, and the LAX Commuter Terminal (a.k.a. USAir Express/States West
5 Terminal) with 5 aircraft positions.¹³ See AR 111:056936.0074-98 ("LAX Airport
6 Capacity Enhancement Tactical Initiative"); AR 28:014193-95 (Supplement Appendix
7 SB, Figure S9, 42-45); AR 8:003703-04 (Master Plan description of remote gates). These
8 two remote commuter terminals joined a third terminal utilized by United Airlines
9 (located in the maintenance area east of Sepulveda Boulevard), which brought the total
10 number of remote commuter gates at LAX to 29. AR 28:014195 (describing pre-1997
11 "Commuter Terminal"); AR 34:017267 (LAX map showing location of "Commuters");
12 AR 8:003704 (tally of LAX gates). Each of these projects involved the installation of a
13 new terminal building and associated aircraft parking areas to which commuter
14 passengers are brought in busses from the Central Terminal Area. Id. The new commuter
15 terminals expanded LAX capacity by creating new aircraft parking spaces and passenger
16 waiting and boarding facilities. The new terminals also freed up key contact gate
17 positions in the Central Terminal Area that were previously used for commuter flights.
18 See AR 28:014193-95.

19 **b. Remote West End Boarding Gates**

20 Also during the Master Plan process, LAWA installed new boarding gate facilities
21 in a large area at the far west end of LAX, immediately south of the northern runway
22 complex. See AR 28:014193-96 (Supplement Appendix SB, Figure S9); AR 48:028585-
23 86 (describing remote gate facilities). Passengers are bussed to and from the remote west
24 end boarding gates from LAX's central terminal area. AR 8:003849 (Master Plan
25 Addendum). Unlike the commuter terminals, however, which serve small commuter
26 aircraft, the LAX west end gates are used by very large aircraft, including Boeing 747s.
27

28 ¹³ The LAX Commuter Terminal apparently is not currently used for commuter operations. AR 8:003849 (Master Plan Addendum, Appendix A).

In fact, although the Master Plan does not analyze the issue, LAWA plans to accommodate the A380 New Large Aircraft at the west end gates. See generally AR 121:060951 (HNTB report entitled "South Airfield and New Large Aircraft (NLA) Studies").

c. Southern Runway Complex Improvements

During the Master Plan process, LAWA made significant improvements to the taxiway system in the South Airfield Complex. See AR 28:014193-96 (Appendix S-B at 42); AR 111:053936.1776-1794 (Exh. 4.20(A) to the City of El Segundo's Sept. 18, 2001 comment letter providing documents describing taxiway projects). Those improvements included five new taxiways (A4, C3, WF, WG and T), the widening/repaving of high-speed exit taxiway T and a seventh undisclosed project. Id. These costly taxiway projects were undertaken to increase the efficiency and capacity of the Southern Airfield Complex and therefore increased the overall capacity of LAX. See AR 124:062261 (LAWA staff explanation that "through the years, LAX incrementally accommodated the use of larger aircraft by making minor upgrades to the airfield").

d. Automobile Parking in the Central Terminal Area

LAWA also recently added 686 new parking spaces in the Central Terminal Area by constructing a new 989-stall parking structure in place of an existing 295-stall surface parking lot. See AR 28:014193-96 (Supplement Appendix SB, Figure S9, 45). This major new \$18 million parking structure (Parking Structure 6) was improperly approved and constructed by LAWA without any environmental review. AR 119:060540-60 (Exh. 10 to the City of El Segundo's Nov. 4, 2003 comment letter providing project details).

e. Expansion of Cargo Facilities

During the pendency of the Master Plan process, LAWA implemented a multi-faceted cargo facility improvement effort that included redevelopment and expansion of the Century Cargo Complex as well as development of new cargo buildings in the South Cargo Complex. See AR 111:056936.1084-1105 (Exhibit 3(M) to the City of El Segundo's Sept. 18, 2001 comment letter providing documents re: cargo projects); AR

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(LAWA, Draft Initial Study: Los Angeles International Airport – Terminal 2 In-Line Baggage Screening Project (June 2004)); AR 137:067711-12 (City of El Segundo comment letter on Mitigated Negative Declaration for TBIT project); Armi Decl., Exh. 4 (LAWA, Mitigated Negative Declaration: Tom Bradley International Terminal Improvements and Baggage Screening Facilities (July 2004)).¹⁴ The \$160 million-plus improvement project for TBIT also involves the expansion and reconfiguration of passenger terminal areas, including waiting lounges and concession areas. See AR 137:067707-16; Armi Decl., Exh. 4 at ES 179-180. Moreover, the TBIT project is an integral part of Respondents' plan to modify LAX facilities to make room for additional passengers and to accommodate New Large Aircraft ("NLAs") including the A380, which Respondents have acknowledged is part of their vision for LAX and justification for the Master Plan. AR 124:062261 (Jim Ritchie, Deputy Executive Director for Long-Range Planning and Environmental Manager for LAWA, stating: "We also need to prepare for the arrival of the New Large Aircraft, the Airbus 380," and acknowledging that LAX has made incremental improvements over the years outside of a master plan process); AR 66:039984 (1996 internal LAWA staff memorandum noting that "[w]e have a tremendous opportunity in the long run . . . to not only maintain but substantially increase both our status and financial return in the world market by keeping informed on world developments pertaining to new large aircraft and doing the necessary planning to keep up with these developments."); Armi Decl., Exh. 4 at ES 174-179 (TBIT Mitigated Negative Declaration describing modifications to accommodate NLAs).

As the foregoing examples make clear, LAWA has improperly implemented its plans to expand LAX through the addition of remote terminals, cargo facilities, automobile parking, and other piecemeal projects without waiting for the Master Plan and without evaluating the aggregate environmental considerations of the total project. Individually and collectively, the piecemeal projects undertaken by LAWA during the

¹⁴ El Segundo has filed a Motion to Augment the Administrative Record with LAWA's Terminal 2 and TBIT documents.

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28:014193-96 (Supplement Appendix SB, Figure S9, 45-46); AR 48:028586-88 (Final EIR response to comments regarding Century Cargo complex improvements). The Century Cargo Complex is a massive collection of cargo facilities (cargo processing/storage buildings, aircraft parking areas known as "ramps" and internal roadways and utilities) located at the southwest corner of Century Boulevard and Aviation Boulevard. Id. Elements of the Century Cargo Complex redevelopment pursued by LAWA include: (1) construction of a new 153,000 square foot cargo facility known as Cargo Building A; (2) construction of a new 150,000 square foot cargo facility known as Cargo Building B; (3) construction of roadway, drainage and utility infrastructure to support operations in the Century Cargo Complex; (4) renovation of various Century Cargo Complex air cargo facilities, including Air Freight Building 8, Air Freight Building 1, and the Mercury Air Group Facility (a 176,000 square foot cargo building); (5) demolition of various Century Cargo Complex buildings; (6) relocation of various air freight operations within the Century Cargo Complex; and (7) relocation of United States Postal Service retail operations from the Century Cargo Complex to a new facility. Id. Additions to the South Cargo Complex, located along Imperial Highway on LAX's south side, include: (1) a new 64,000 square foot cargo building for Singapore Airlines and (2) a 73,000 square foot cargo building expansion for FedEx. Id.

2. Respondents Continue Their Historic Pattern and Practice of Piecemeal Approvals in Contravention of CEQA.

LAWA's pattern and practice of piecemeal approval of LAX expansion projects outside of the Master Plan process has continued to the present. LAWA recently approved a major renovation and expansion of the Tom Bradley International Terminal ("TBIT") as well as a major upgrade of the Terminal 2 baggage handling system. These projects were not treated as part of the Master Plan, and are not evaluated in the EIR.

Both the Terminal 2 project and the TBIT project involved dramatic increases in baggage handling capacity and efficiency. See AR 137:067703-06 (City of El Segundo comment letter on Negative Declaration for Terminal 2 Project); Armi Decl., Exh. 3

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Master Plan process should have been evaluated as part of the larger Master Plan Project. Instead, Respondents have violated CEQA by treating them as separate projects, thereby avoiding analysis and mitigation of their environmental implications. See *Citizens Assoc. for Sensible Dev. of Bishop Area v. County of Inyo*, 172 Cal.App.3d 151, 165-167 (1985) (faced with shopping center development improperly segmented into two projects – a general plan amendment/zone reclassification and a tentative tract map/road abandonment – court noted, "[t]his approach is inconsistent with the mandate of CEQA that a large project shall not be divided into little ones because such division can improperly submerge the aggregate environmental considerations of the total project."); *Orinda Assoc.*, 182 Cal.App.3d at 1171-72 (demolition approval illegally segmented from overall project); *Assoc. for a Cleaner Env't v. Yosemite Cmty. Coll. Dist.*, 116 Cal.App.4th 629, 637-40 (2004) (shooting range closure, removal and cleanup, as well as transfer of shooting range activity, must be evaluated as part of single, coordinated endeavor and could not be segmented for CEQA review). Courts have expressly held that CEQA's prohibition on segmentation applies equally to aspects of the project that have already been completed. *Arviv Enterprises*, 101 Cal.App.4th at 1336, 1346-48, 1350-51. LAWA's segmented approach, and the resultant lack of comprehensive environmental analysis for LAX, clearly undermines the entire EIR and violates CEQA.

III. THE EIR'S ALTERNATIVES ANALYSIS IS LEGALLY INADEQUATE.

CEQA emphasizes the fundamental role that the identification and analysis of alternatives plays in the environmental review process: "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." Pub. Res. Code § 21002.1(a) (emphasis added). To that end, the EIR must "describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." CEQA Guidelines § 15126.6(a); see

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1 also Citizens of Goleta Valley, 52 Cal.3d at 564-66; Pub. Res. Code § 21002. This
2 discussion is necessary to “foster [] informed decisionmaking and public participation.”
3 Laurel Heights I, 47 Cal.3d at 404 (quotation marks omitted). An EIR that fails to
4 analyze a reasonable range of alternatives is legally inadequate under CEQA. See, e.g.,
5 San Joaquin Raptor, 27 Cal.App.4th at 735-39 (EIR inadequate due, in part, to cursory
6 alternatives analysis); Kings County Farm Bureau, 221 Cal.App.3d at 733 (same); San
7 Bernardino Valley Audubon Soc’y, Inc. v. County of San Bernardino, 155 Cal.App.3d
8 738, 750-51 (1984) (same).

9 Here, the EIR fails to discuss a legally sufficient range of alternatives. It fails to
10 analyze any alternative to the proposed project that would involve a smaller scope of
11 improvements. The EIR also improperly rejects feasible alternatives suggested by the
12 public. In addition, a comparative evaluation of alternatives that could meet the basic
13 project objectives is fatally skewed by the fact that the Project itself fails to achieve the
14 project goals identified.

15 **A. The EIR Fails to Consider an Adequate Range of Feasible Alternatives,
16 Despite Numerous Requests and Explicit Suggestions by Commenters.**

17 The range of alternatives to be analyzed is governed by the “rule of reason,” which
18 requires agencies to formulate and consider alternatives which: “(1) offer *substantial*
19 *environmental advantages* over the project proposal; and (2) may be feasibly
20 accomplished in a successful manner considering the economic, environmental, social
21 and technological factors involved.” Citizens of Goleta Valley, 52 Cal.3d at 565-66
22 (emphasis added) (internal citations and quotation marks omitted). The EIR
23 acknowledges that the Project would have significant environmental impacts, even after
24 mitigation. See, e.g., AR 34:017715 (significant noise impacts); 35:017953-54
25 (significant noise impacts); AR 35:017999 (significant temporary construction traffic
26 impacts); AR 35:018100 (significant off-airport surface transportation impacts); AR
27 36:018357 (significant air quality impacts); AR 36:018396 (significant drainage impacts);
28 AR 36:018449 (significant historic/architectural resources impacts); AR 37:018802-04

1 (significant impacts from construction); AR 37:019175 (significant school impacts).¹⁵
2 Respondents were required, therefore, to offer alternatives to Alternative D that would
3 have less adverse impacts on the environment, and analyze them in a manner sufficient to
4 permit informed decisionmaking. CEQA Guidelines § 15126.6(a). Respondents failed to
5 do this.

6 **1. The EIR Fails to Discuss Any “Build” Alternative Less
7 Environmentally Damaging Than the Proposed Project.**

8 Respondents’ approach to alternatives throughout the CEQA process has been to
9 select a preferred alternative and then compare it to other more intensive, more
10 environmentally damaging “build” alternatives. This approach is contrary to CEQA,
11 which requires agencies to consider alternatives, other than the No Project Alternative,
12 that would be less environmentally damaging than the Project. CEQA Guidelines §
13 15126.6(a). When the Draft EIS/EIR was first introduced in 2001, it included analysis of
14 only three “build” alternatives: Alternatives A, B and C. CEQA Guidelines §
15 15126.6(c)(1). Alternative C was Respondents’ proposed project and was presented as
16 less environmentally damaging than Alternatives A and B, which each called for an
17 additional runway. AR 34:017268-69 (Final EIR figures depicting Alternatives A and B);
18 AR 34:017547; AR 34:017310-36 (Final EIR table summarizing impacts of alternatives);
19 AR 34:017603. Thus, Respondents violated CEQA’s mandate to consider alternatives to
20 the project with “substantial environmental advantages” over Alternative C. Citizens of
21 Goleta Valley, 52 Cal.3d at 565-66; CEQA Guidelines § 15126.6(a).

22 This approach was apparently designed to give the false impression that
23 Alternative C represented the best available alternative. It precluded any meaningful
24 comparison between the proposed project and less environmentally damaging
25 alternatives, as required by CEQA. CEQA Guidelines § 15126.6(d); Kings County Farm

26 ¹⁵ As discussed in Argument Sections II(A), above, and V, below, the levels of impacts
27 identified are substantially below the reasonably foreseeable impacts. Thus, the City of
28 El Segundo believes that the actual impacts of the Project far exceed those identified in
the EIR.

1 Bureau, 221 Cal.App.3d at 733 (“A legally adequate EIR must produce information
2 sufficient to permit a reasonable choice of alternatives so far as environmental aspects are
3 concerned. . . . It must contain sufficient detail to help ensure the integrity of the process
4 of decisionmaking by precluding stubborn problems or serious criticism from being swept
5 under the rug.”) (internal citations and quotation marks omitted).

6 When LAWA introduced Alternative D as the new proposed project in 2003, it
7 again violated CEQA by offering only alternatives that would have greater, not lesser,
8 environmental impacts: Alternatives A, B and C from the 2001 EIR. AR 34:017543-46;
9 CEQA Guidelines § 15126.6(a). Thus, the public and decisionmakers were denied the
10 information they needed, and were entitled to review, about alternatives. By withholding
11 this information, Respondents gave the false impression that no feasible alternative exists
12 that could achieve the stated purposes of the Master Plan (i.e., improve LAX’s safety and
13 security, and serve 78.9 MAP) with lesser adverse impacts than Alternative D. AR
14 124:062277 (lines 5-7) (LAWA staff arguing for approval of Alternative D because “[i]t
15 has passed all the environmental tests. It is the environmentally superior alternative. . . .”);
16 AR 124:062279 (lines 7-10) (LAWA staff arguing for approval of Alternative D because
17 the EIR analysis “found that this project would have the least amount of overall
18 environmental impacts”).

19 Respondents have attempted to justify their failure to analyze less damaging
20 alternatives by arguing that their preferred alternatives (first Alternative C, and later
21 Alternative D) each represented an improvement over other options. AR 39:020658
22 (response to comments stating that Alternative C was less intensive than other build
23 alternatives); AR 39:020660 (response to comments stating that Alternatives C and D
24 would avoid impacts of other build alternatives). This argument improperly asks the
25 Court to excuse Respondents from their obligation to evaluate less damaging alternatives
26 to their proposed project. The fact that *more* damaging alternatives exist does not suffice.

1 **2. The Stated Purposes of Alternative D – Serving 78.9 MAP and
2 Enhancing Security – Could Feasibly Be Achieved by Less
3 Environmentally Damaging Alternatives.**

4 Throughout the CEQA process, Respondents have steadfastly refused to evaluate
5 feasible alternatives for the improvement of LAX, despite repeated requests from the City
6 of El Segundo and others. These alternatives would be less environmentally damaging
7 than Alternative D and would still meet the stated objectives of Alternative D. AR
8 10:004486 (discussing Alternative D objectives); see also AR 10:004361 (same); AR
9 39:020659 (responses to comments rejecting comment that EIR should have studied
10 “more than one ‘regional approach’”). Respondents’ failure to consider these alternatives
11 violates CEQA’s mandate to consider reasonable alternatives suggested by the public.
12 See Cleary v. County of Stanislaus, 118 Cal. App. 3d 348, 357 (1981) (“[W]here
13 comments from responsible experts or sister agencies disclose new or conflicting data or
14 opinions that cause concern that the agency may not have fully evaluated the project and
15 its alternatives, these comments may not simply be ignored. *There must be good faith,*
16 *reasoned analysis in response.*”) (quotation marks omitted) (emphasis in original).

17 **a. Respondents Failed To Consider a Reduced Facilities
18 Development Alternative.**

19 A standard practice under CEQA is to consider an alternative that would involve a
20 lower level of development than the proposed project. Mira Mar Mobile Cmty. v. City of
21 Oceanside, 119 Cal.App.4th 477, 489-90 (2004) (EIR appropriately considered less dense
22 alternatives to the project). Respondents never considered such a reduced-development
23 plan as an alternative, despite its obvious relevance here.

24 As demonstrated by exhaustive comments in the record and discussed in Argument
25 Section II(A), above, Alternative D fails to achieve its stated objective of maintaining the
26 airport at 78.9 MAP. Respondents could have and should have developed and analyzed
27 the impacts of an alternative that reduced the number of gates and other facilities to
28 assure that no more than 78.9 MAP could actually be accommodated. For example, El
Segundo’s expert analysis determined that in order to maintain the gate capacity at 78.9

1 MAP, the number of gates should be further reduced, by about 10 gates. AR 119:060453.
2 Similarly, the terminal space, parking spaces, and other facilities proposed in Alternative
3 D are all oversized for the official target level of 78.9 MAP, and a downsize option could
4 offer reduced facilities. AR 119:060436.1, 060304; 119:060437. Moreover, such a
5 reduced facilities development alternative could incorporate El Segundo's suggestion to
6 control capacity by reducing the number of gates at the outset of the implementation of
7 the Master Plan improvements, thus avoiding excess gates during the build-out period,
8 and resultant capacity in excess of the goal of the plan. See AR 48:028580-81.

9 An alternative that reduced the size of the proposed facilities, while maintaining a
10 78.9 MAP capacity, would have reduced impacts, and should have been considered as
11 part of the process mandated by CEQA.

12 **b. Respondents Failed To Consider the Regional Approach to**
13 **Serving Aviation Demand Suggested by El Segundo and**
14 **Others.**

15 Despite its vast size and large population, the Los Angeles region depends on a
16 single massive airport – LAX – with other airports in the region carrying just a fraction of
17 the aviation demand. AR 34:017483 (LAX accounts for roughly 75 percent of the
18 region's passengers and 72 percent of its departures); see AR 34:017484 (map showing
19 existing and potential commercial service airports in the Los Angeles region). In
20 contrast, many major metropolitan areas are served by a system of several airports. The
21 New York City area has LaGuardia Airport, John F. Kennedy International Airport, and
22 Newark International Airport. See AR 135:066992 (Councilmember Villaraigosa
23 describing airports in other metropolitan areas). Washington D.C. has Ronald Reagan
24 Washington National Airport, Washington Dulles International Airport, and
25 Baltimore/Washington International Airport. Chicago has O'Hare International Airport
26 and Chicago Midway Airport. The San Francisco Bay Area is served by airports in San
27 Jose, Oakland and San Francisco. The FAA's guidance on airport master planning
28 promotes this regional balance among airports. Armi Decl., Exh. 1 at ES 037 ("The
division of airline traffic by type, such as international, domestic, and shuttle among two

1 or more airports can systematically balance demand and capacity.”).

2 A regionally balanced alternative to the Project would more effectively utilize
3 other existing airports and develop potential airports for cargo and passengers, thereby
4 reducing the demands on LAX, while still satisfying the region's needs. AR
5 111:056936.0017-46 (Exh. 2(A) to City of El Segundo's Sept. 18, 2001 comment letter).
6 The regional approach to serving aviation demand would spread the benefits and burdens
7 associated with airports more evenly throughout the Southern California region.

8 Recognizing the potential offered by adopting a regional approach to airport
9 demand, the City of El Segundo, along with the Cities of Santa Monica and Culver City,
10 hired an expert consultant to assess the regional aviation infrastructure and capability of
11 the Southern California region. This report, prepared by Wadell Engineering Corporation
12 and entitled "Commercial Airports Assessment: Southern California Regional Airport
13 Systems," was submitted to LAWA with El Segundo's comments on the Draft EIS/EIR.
14 AR 111:056936.0017-46. It concludes, *inter alia*, that:

- 15 1. Each of the regional airports can contribute to meeting future demand.
- 16 2. The airports are well located to serve the region's needs in that they are
17 dispersed both in direction and in distance from LAX.
- 18 3. The concentration of service at one large airport located at the western edge
19 of the service area (i.e. LAX) does not offer convenient service for the full
20 range of travelers demanding air travel to and from the region.
- 21 4. Other airports with greater acreage (such as El Toro, March, and Palmdale),
22 longer runways (such as March and Ontario), stronger runways (such as
23 March, El Toro, Long Beach, and Point Mugu) can better handle very long
24 and very heavy flight operations when compared with the runway facilities
25 at LAX.
- 26 5. As with other modes of transportation, concentration of most regional
27 traffic at one hub, node, or centroid with limited facilities is not suitable or
28 a balanced method of handling traffic. Spreading of traffic within the
region versus concentration at one point is beneficial for traffic movement.

25 id. at 056936.0045. Thus, expert analysis supports the call for a regional approach.

26 The City of El Segundo and others have repeatedly commented on the desirability
27 of adopting a regional approach to satisfying airport demand. AR 111:056416-419; AR
28 52:031971 (letter from ARSAC member); id. (letter from Westchester resident); AR

1 53:033762 (testimony of Azusa City Councilmember); AR 54:034403 (letter from
2 ARSAC); see also AR 39:020788-804 (responses to comments). In response,
3 Respondents claim on one hand that the design of Alternative D will encourage use of the
4 region's other airports: "Alternative D would encourage airlines to . . . supplement high-
5 frequency domestic service at other airports." AR 10:004363. On the other hand,
6 Respondents themselves reject this claim: "It should not automatically be assumed that
7 these airports will be able to provide the necessary additional capacity to handle future
8 aviation demand." AR 39:020799. Apparently, Respondents do not believe their own
9 claim that the design of Alternative D will facilitate use of the region's other airports. As
10 explained in Argument Section II(A), above, Alternative D lacks the capacity constraints
11 needed to shift aviation growth from LAX to other airports in the region.

12 Respondents have repeatedly rejected public appeals to take advantage of the
13 region's other airports. They dismiss the idea of encouraging development at other
14 airports that would help alleviate the demands on LAX. AR 39:020791 ("LAWA is not
15 obligated to consider alternatives that include particular proposed expanded facilities and
16 increased activity levels at existing and/or proposed airports that LAWA does not
17 control."). This logic fails.

18 First, implementing a regional approach to airport demand does not require
19 Respondents to make changes to any other airports. If LAX's capacity were truly
20 constrained to a level of 78.9 MAP, regional demand would tend to shift to other airports.
21 See AR 34:017578 (constraining facility capacity at LAX would "[e]ncourage the
22 development and use of regional airports to serve local demand"). The other airports and
23 surrounding communities would make their own decisions about whether and how to
24 accommodate these demands.

1 Second, Respondents are in a position of unique power with respect to
2 implementation of the regional approach because the City of Los Angeles owns and
3 LAWA operates four airports: LAX, Ontario International Airport, Palmdale Airport, and
4 Van Nuys Airport. AR 34:017463. They have a particular opportunity to act as aviation
5 leaders and design a plan that takes advantage of all of the airports under their control.

6 **(i) Respondents' Refusal to Consider Palmdale**
7 **Airport as an Opportunity for Absorbing Airport**
8 **Demand is Illustrative of Their Refusal to Consider**
9 **a Regional Approach.**

10 One of the most glaring examples of Respondents' failure to consider a regional
11 approach to serving aviation demand can be seen in their treatment of Palmdale Airport,
12 which is located north of Los Angeles in the Antelope Valley, near the cities of Lancaster
13 and Palmdale, and owned and operated by Los Angeles. AR 34:017484. Although
14 Respondents purchased the airport in the 1960s for future airport expansion and,
15 according to their 1981 Interim Plan, envisioned using it to accommodate the region's
16 future growth, no such expansion has occurred and little to no commercial aviation
17 activity has taken place at the airport since it was acquired by Respondents. AR
18 39:020802-03; AR 57:036259 ("The projected maximum air passenger volume [of LAX]
19 will be approximately 40 million annually. Further increases in volume are planned to be
20 accommodated by Palmdale International Airport and satellite airports.").

21 Palmdale Airport's host communities have been very supportive of its expansion
22 and of increased aircraft operations in their area. See, e.g., AR 69:040855 (letter from
23 Mayor of Lancaster expressing City Council's support for expanded use of Palmdale
24 Airport). Likewise, the Southern California Association of Governments ("SCAG")
25 advocates a regional approach to serving aviation demand and has consistently urged
26 Respondents to focus on Palmdale Airport as an important part of the strategy for serving
27 the region's demand for air transport. See AR 39:020799 (SCAG's 2001 RTP, assuming
28 Palmdale Airport would be developed to serve long-haul domestic and international
service, 12.8 MAP in 2030).

1 Respondents have consistently refused, however, to consider seriously an
 2 expanded role for Palmdale Airport despite owning and operating both Palmdale and
 3 LAX. Respondents' Master Plan characterizes the facility as "remote" and lacking
 4 necessary ground transportation access routes. AR 39:020802-03, 020812. Respondents
 5 further note that airlines have been and will be reluctant to schedule passenger and cargo
 6 service to Palmdale Airport. Id. Respondents characterize Palmdale Airport use as
 7 feasible only in the "long term" and only as a "supplemental airport" (i.e., providing
 8 commuter flights connecting to other airports, including LAX). AR 39:020793, 020798.
 9 Reliance on Palmdale Airport to serve a significant portion of the region's demand
 10 receives no serious consideration in the Master Plan, which looks out no further than
 11 2015 and focuses exclusively on LAX.

12 Respondents attempt to justify their stubborn focus on LAX based on "the existing
 13 fractured management of Los Angeles Basin airports combined with the extensive capital
 14 investment at LAX and resistance by the owners of the region's secondary airports." AR
 15 39:020820-21 (Final EIR response to comments). This logic fails for Palmdale, however,
 16 because Respondents control that airport. Moreover, the whole purpose of the Master
 17 Plan process is to determine how significant capital investments (e.g., over \$11 billion for
 18 the LAX Master Plan) should be made going forward. AR 134:066525 (lines 11-12);
 19 066526 (lines 10-12) (\$11 billion estimated cost for Master Plan facilities, not including
 20 mitigation and land acquisition costs). Respondents' insistence that they must invest
 21 more in LAX simply because they have invested so much in the past, blinds them to other
 22 alternatives.

23 Respondents' defeatist attitude towards Palmdale Airport and the regional
 24 approach generally is inconsistent with CEQA, which requires serious consideration of
 25 feasible alternatives. Respondents' approach is particularly problematic because they
 26 have the unique opportunity to take the actions necessary to constrain LAX growth and
 27 promote and plan for growth at Palmdale Airport and other regional airports.
 28

1 (ii) Respondents Should Also Consider Other Regional
 2 Airports.

3 Respondents cannot legally ignore the regional approach simply because they do
 4 not own all of the airports in the region. Although the ability of a project proponent to
 5 "acquire, control or otherwise have access to" alternative sites is one factor to be
 6 considered in determining the feasibility of alternatives under CEQA, it is not
 7 determinative. CEQA Guidelines § 15126.6(f)(1); Citizens of Goleta Valley, 52 Cal.3d at
 8 576 n.7 ("Site ownership . . . [is] simply a factor to be taken into account and [does] not
 9 establish an ironclad limit on the scope of reasonable alternatives."). In addition,
 10 ownership of an alternative site is a less significant factor in considering alternative
 11 feasibility when the project proponent is, like LAWA, a public entity. Citizens of Goleta
 12 Valley, 52 Cal.3d at 574; see also Laurel Heights I, 47 Cal.3d at 403-04 (EIR inadequate
 13 when it did not consider the "possibility of [a public university] purchasing or leasing
 14 other facilities"). Respondents could in fact choose to take a regional leadership role and
 15 implement the regional approach by constraining growth at LAX and promoting growth at
 16 other airports they own.

17 (iii) Alternative D Does Not Represent a Regional
 18 Approach.

19 Despite Respondents' repeated claims to the contrary, Alternative D does not
 20 represent a "regional alternative." See, e.g., AR 34:017271, 017578; AR 10:004353. A
 21 truly regional alternative would be designed to coordinate and utilize an airport system
 22 throughout the Los Angeles region, rather than relying almost exclusively on LAX.

23 The entire basis for LAWA's claim that Alternative D represents a regional
 24 alternative is that its design would encourage airlines to use other airports in the region by
 25 limiting the number of usable gates at LAX. AR 10:004363 ("The design of Alternative
 26 D would encourage airlines to choose the most efficient use of the gate facilities at LAX
 27 and supplement high-frequency domestic service at other airports in the region."); AR
 28 34:017551 (Final EIR table showing number of gates by Alternative). Yet as discussed in
 Argument Section II(A), above, Alternative D fails to limit the airport's capacity to 78.9

1 MAP and therefore fails to encourage use of the region's other airports. See also AR
 2 48:028402-03 (SCAG comment rejecting Respondents' claim that Alternative D will
 3 result in a capacity limit of 78.9 MAP and encourage regional approach). Thus,
 4 Alternative D does not constitute a regional approach.

5 **3. The EIR Improperly Rejects Other Alternatives Proposed by the
 6 Public.**

7 While the public is not responsible for offering alternatives to the proposed
 8 project, CEQA encourages it to do so. Laurel Heights I, 47 Cal.3d. at 405-06; San
 9 Joaquin Raptor, 27 Cal.App.4th at 737; CEQA Guidelines § 15204(a). Moreover, when
 10 the public does offer reasonable alternatives to the proposed project, the public agency
 11 should provide a meaningful analysis of them. See Pub. Res. Code § 21091(d)(2)(B);
 12 CEQA Guidelines § 15088(c); Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port
 13 Comm'rs, 91 Cal.App.4th 1344, 1367, 1371 (2001) ("Berkeley Jets"); Cleary, 118
 14 Cal.App.3d at 357. This, Respondents failed to do.

15 Numerous comments were submitted by the public that offered feasible
 16 alternatives to the proposed project. See, e.g., AR 111:056415 (City of El Segundo
 17 suggesting regional approach), 056418-19 (City of El Segundo suggesting "Optimum
 18 International" alternative); AR 113:057924-46 (ARSAC Alternative E Presentation); AR
 19 55:034940 (First Addendum describing alternatives submitted by the public). Rather than
 20 providing meaningful discussion of these alternatives, as required by CEQA, Respondents
 21 dismissed the suggested alternatives as infeasible without adequately supporting this
 22 determination. CEQA Guidelines §15126.6(d).

23 Specifically, Respondents' First Addendum rejected as infeasible three
 24 alternatives: 1) ARSAC E, which was submitted by the Alliance for a Regional Solution
 25 to Airport Congestion as part of its comments on the Supplemental Draft EIS/EIR; 2)
 26 ARSAC E-1, which is a revised version of ARSAC E; and 3) Parks E-1, which was
 27 submitted by Los Angeles City Councilmember Bernard Parks at the joint hearing of the
 28 Los Angeles Citywide Planning Commission and the Los Angeles Board of Airport

1 Commissioners on June 14, 2004. See AR 55:034940. The inadequacy of Respondents'
 2 treatment of these three alternatives is detailed in the Memorandum of Points and
 3 Authorities of Petitioner ARSAC.¹⁶

4 **B. A Meaningful Alternatives Analysis Is Precluded By Respondents'
 5 Failure to Show That Alternative D Itself Meets the Project Objectives.**

6 Respondents' stated purposes for developing the proposed project are limiting
 7 capacity to a level equivalent to the No Project Alternative (78.9 MAP), and enhancing
 8 airport safety and security. AR 10:004486 ("The starting place for the facility design
 9 concept for Alternative D was to design basic airport and ground access facilities that
 10 enhance airport safety and security while retaining the ability to serve aviation activity
 11 equivalent to the projected [No Project] level"); AR 124:062276 (lines 14-17) (LAWA
 12 staff statement that "[t]his plan is designed to accommodate approximately 78 million
 13 annual passengers, the projected level of activity that can be reached, if no improvements
 14 were completed at the airport"); see also AR 10:004361 (Master Plan describing facility
 15 constraints); AR 39:020659 (response to comments stating that Alternative D is
 16 "designed to serve approximately 78.9 [MAP]"). Yet, Alternative D itself does not
 17 achieve these goals. In fact, these oft-repeated objectives represent an empty
 18 rationalization for Respondents' desired LAX expansion project.

19 As discussed in Argument Section II(A), above, Alternative D fails to limit LAX
 20 capacity to 78.9 MAP. Rather, expert analysis demonstrates that a conservative capacity
 21 estimate, given Alternative D's terminal, gate and airfield configuration, is at least 87
 22 MAP. AR 137:067700-01. Thus, Alternative D does not accomplish its own stated
 23 objective of limiting capacity.

24 Similarly, the record does not contain substantial evidence that Alternative D will
 25 achieve the other stated project objective – enhancing safety and security. Responding to
 26 public skepticism about this lack of evidentiary support for the EIR's claims about the
 27

28 ¹⁶ El Segundo incorporates the argument of ARSAC on this point, rather than
 unnecessarily duplicating the discussion here.

1 safety and security advantages of Alternative D, LAWA commissioned the RAND
 2 Corporation, a non-profit research organization that specializes in security analysis, to
 3 study the security implications of Alternative D. See AR 132:065458. However, only the
 4 first part of this two-part study was released prior to Respondents' approval of the Master
 5 Plan. AR 132:065456 (September 24, 2004 RAND study); AR 134:066589 (line 15)-
 6 066590 (line 2) (RAND testimony that the first part of its study did not address the
 7 security implications of Alternative D). It focused exclusively on current LAX
 8 operations, not the proposed Master Plan, and concluded that significant vulnerabilities
 9 exist that make LAX a vulnerable terrorist target. AR 132:065471-74 (describing LAX's
 10 history of attacks and other factors). This first portion of the RAND study also
 11 recommended a variety of easy-to-implement, relatively low-cost improvements that
 12 could be made immediately at LAX to significantly improve safety and decrease
 13 vulnerability to terrorist attacks, thus alleviating the need to consider many of the
 14 improvements proposed in Alternative D. AR 132:065463-65. The record is silent
 15 regarding whether and to what extent Respondents will implement RAND's suggested
 16 near-term improvements at LAX.

17 The second part of the RAND study was to address the security implications of
 18 Alternative D. This report was due for release in the spring of 2005, but has not been
 19 forthcoming. LAWA and the City of Los Angeles have pointed to the commissioning of
 20 this study as evidence of their commitment to improving the safety of LAX through the
 21 Master Plan. See AR 133:066017 (line 18) - 066018 (line 3); AR 130:064839 (LAWA's
 22 Sept. 13, 2004 30-day status report on LAX Master Plan). However, the Project was
 23 approved without the results of this study. AR 135:066943 (line 22) - 066944 (line 20)
 24 (LAWA staff acknowledging that RAND has not yet conducted any study of Alternative
 25 D and relying on "intuition" to conclude that RAND will find no problems with the
 26 Project). The true safety implications of Alternative D, then, remain unexamined and
 27 highly questionable.

28 Thus, Respondents have failed to establish that Alternative D would achieve the

1 stated objectives. Respondents' stated, and undeniably positive, objectives – improving
 2 safety and security, and limiting capacity – appear to be empty rationalizations for the
 3 Project. Given the history of rapid growth at LAX and Respondents' own projections of a
 4 98 MAP demand at LAX in 2015, Respondents' true Project objective appears to be
 5 expanding LAX to accommodate more passengers and cargo. AR 34:017467 (EIR
 6 describing history of growth at LAX); AR 39:020702 (stating in response to comments
 7 "that passenger activity levels at LAX are projected to reach approximately 98 MAP in
 8 2015.")

9 CEQA requires a statement of project objectives that enables development of a
 10 reasonable range of alternatives, not a statement of objectives that rationalizes an already-
 11 selected alternative. CEQA Guidelines § 15124(b). Respondents have precluded a
 12 legally adequate alternatives analysis because they have proposed a Project that is not
 13 consistent with the articulated Project objectives.

14 **IV. THE EIR'S TREATMENT OF THE NO PROJECT ALTERNATIVE IS MISLEADING AND VIOLATES CEQA.**

15 CEQA requires that an EIR identify a "No Project Alternative," which provides "a
 16 factually-based forecast of the environmental impacts of preserving the status quo."
 17 Planning and Conservation League v. Dep't. of Water Res., 83 Cal.App.4th 892, 917
 18 (2000) ("PCL"); see CEQA Guidelines § 15126.6(e). The No Project Alternative serves a
 19 vital function in the environmental review process by "provid[ing] the decision makers
 20 with a baseline against which they can measure the environmental advantages and
 21 disadvantages of the project and alternatives to the project." PCL, 83 Cal.App.4th at 917-
 22 18; see also County of Inyo v. City of Los Angeles, 124 Cal.App.3d 1, 9 (1981) ("Inyo
 23 County II") (no-project alternative required to "assess the advantage of terminating the
 24 proposal"). The No Project Alternative must consist of existing conditions "as well as
 25 what would be *reasonably expected to occur in the foreseeable future* if the project were
 26 not approved, based on current plans and consistent with available infrastructure and
 27 community services." CEQA Guidelines § 15126.6(e)(2) (emphasis added).
 28

1 As detailed below, and as the City of El Segundo previously commented, the EIR
 2 fundamentally distorts the No Project Alternative by including development at and around
 3 LAX that cannot reasonably be expected to occur in the foreseeable future in the absence
 4 of the approved LAX Master Plan. See AR 111:056421-2 (City of El Segundo, Sept. 18,
 5 2001 comment letter). Through these unrealistic assumptions, the EIR dramatically
 6 overstates the intensity and impacts of the No Project Alternative, thereby minimizing the
 7 impacts of the build alternatives (including Alternative D) by making them appear less
 8 problematic by comparison. AR 111:056421-22. In presentations to decision makers,
 9 staff for Respondents relied heavily on the EIR's identification of Alternative D as
 10 environmentally superior to the No Project Alternative. Indeed, at every opportunity, they
 11 hailed Alternative D as the best environmental option. AR 125:062713 (June 14, 2004
 12 meeting of BOAC and Planning Commission); AR 124:062277 (May 24, 2004 meeting
 13 of BOAC and Planning Commission); AR 133:066019 (Sept. 29, 2004 City Council
 14 Meeting). Despite this praise for Alternative D, "[i]t can readily be seen that any project
 15 can be made to look good by posing a 'synthetic' 'no-project' alternative consisting of the
 16 absence of the project plus some additional condition which is much worse than the
 17 project." Inyo County II, 124 Cal.App.3d at 12.

18 As described below, the record contains no evidence to justify Respondents'
 19 determination of inflated current airport capacity under the No Project Alternative, their
 20 inclusion of certain speculative projects in the No Project Alternative, or their inclusion in
 21 the No Project Alternative of unlawfully segmented projects that should plainly be
 22 considered as part of the Master Plan. These deficiencies are particularly troubling in
 23 light of the purpose of the LAX Master Plan, which is to provide "a strategic plan to
 24 guide future development." AR 1:000003 (Draft LAX Master Plan). During the Master
 25 Plan process that has been ongoing for more than a decade (AR 34:017467), LAWA has
 26 engaged in ad hoc development as described in Argument Section II(C), above, without
 27 the benefit of a Master Plan guide. As a result, the EIR impermissibly "describes a
 28 journey whose destination is already predetermined." NRDC, 103 Cal.App.4th at 271.

1 To aid this exercise in futility, the No Project Alternative appears to have been
 2 deliberately engineered to justify that journey.

3 As a result of the artificially inflated impacts of the No Project Alternative, the
 4 EIR downplays the substantial air quality, health and safety, noise, and traffic, impacts
 5 from the implementation of this massive development plan. As such, the EIR is skewed
 6 in favor of the proposed project, fails to fulfill its informational purpose and must be
 7 invalidated. PCL, 83 Cal.App.4th at 919-20 (invalidating EIR for inadequate no project
 8 alternative).

9 **A. The EIR Arbitrarily Inflates the Capacity of the No Project Alternative.**

10 In a clear act of No Project gerrymandering, during the development of the EIR,
 11 LAWA abruptly and without explanation increased its estimate of the number of
 12 passengers and amount of cargo that could be served at LAX under the No Project
 13 Alternative. Specifically, LAWA took the position in November 1999 that the No Project
 14 Alternative would "only allow for future annual passenger growth to 70 MAP by 2015
 15 and the accommodation of only 2.5 MAT of cargo by 2015." AR 111:056936.0687
 16 (printout of LAWA's website from November 1999). One month later, however, LAWA
 17 presented an entirely different estimate of the No Project Alternative's capacity, stating
 18 that it will "allow for future annual passenger growth to 79 million annual passengers
 19 (MAP) by 2015 and the accommodation of only 3.1 million annual tons (MAT) of cargo
 20 by 2015." AR 111:056936.0699 (printout of LAWA's website from December 1999). It
 21 is this latter inflated estimate of capacity upon which the EIR relies. See AR 12:005152;
 22 34:017548 (describing No Project Alternative as accommodating 78.7 MAP in 2015).
 23 Increasing the estimated capacity of the No Project Alternative has the direct effect of
 24 inflating the apparent environmental impacts of the No Project Alternative, incorrectly
 25 portraying the Master Plan's impacts as comparatively less significant than they are. The
 26 Administrative Record documents for the period around December 1999 provide no
 27 justification for, and no evidence to support this abrupt increase in the capacity assumed
 28

1 for the No Project Alternative. See generally AR Vol. 102 (documents in record from
2 around December 1999).

3 In responses to comments, Respondents effectively conceded the above-described
4 capacity inflation, but claimed that it was due to an intervening change in the CEQA
5 Guidelines, which allowed them to include in the No Project Alternative projects
6 identified in the existing interim master plan, adopted in 1981. AR 41:022023.
7 Respondents maintained that they retooled their No Project Alternative to include
8 additional projects that they found "consistent" with the 1981 Interim Plan. Id. However,
9 the 1981 Interim Plan, which is a mere seven pages long, is so cursory, vague, and
10 outdated that it is totally inappropriate to rely on it as the basis for defining the No Project
11 Alternative. See AR 57:036257-63 (1981 Interim Plan). Moreover, even if it were
12 appropriate to look to the 1981 Interim Plan, the future and ongoing development projects
13 that Respondents claim increased the capacity estimate for the No Project Alternative to
14 almost 79 MAP (AR 41:022023; AR 28:014193-96 (EIR Supplement Appendix SB, 42-
15 45), are in no way consistent with the 1981 Interim Plan, which was based on a capacity
16 projection of only 40 MAP (AR 57:036259). In fact, the 1981 Interim Plan calls for
17 increases in passenger volume over 40 MAP to be accommodated through the
18 development of Palmdale Airport, not further expansion of LAX. AR 57:036259. As
19 such, it was wholly improper for Respondents to rely on the 1981 Interim Plan to justify
20 the inflated definition of the No Project Alternative. Relying on the 1981 Interim Plan,
21 which by its own terms expired in 2001 at the latest (AR 57:036261), to justify future
22 expansion under the No Project Alternative makes no sense.

23 Further, Respondents' justification for their sudden inflation of the No Project
24 Alternative fails because the 1998 amendments to the CEQA Guidelines did not change
25 the law in this respect at all. Not only is there no judicial precedent for Respondents'
26 interpretation of the 1998 Guideline amendments, the "No Project" provision cited in
27 Respondents' response to comments appeared in the CEQA Guidelines in nearly identical
28 form before the revisions. Compare CEQA Guidelines § 15126.6(e)(2) ("The 'no project'

1 analysis shall discuss the existing conditions at the time the notice of preparation is
2 published . . . as well as what would be reasonably expected to occur in the foreseeable
3 future if the project were not approved, based on current plans and consistent with
4 available infrastructure and community services." and § 15126.6(e)(3)(A) ("When the
5 project is the revision of an existing land use or regulatory plan . . . the 'no project'
6 alternative will be the continuation of the existing plan . . . into the future.") with former
7 CEQA Guidelines § 15126(d)(4) ("The 'no project' analysis shall discuss the existing
8 conditions, as well as what would be reasonably expected to occur in the foreseeable
9 future if the project were not approved, based on current plans and consistent with
10 available infrastructure and community services.")

11 Moreover, the EIR essentially deems any project that does not require future
12 federal approval as "reasonably foreseeable" and includes such development within the
13 No Project Alternative. AR 39:020168. If this Court were to accept Respondents' broad
14 interpretation of the CEQA Guidelines provisions defining the No Project Alternative, it
15 would grant an agency nearly unfettered discretion to invent a self-serving, inflated No
16 Project scenario.

17 **B. The No Project Alternative Improperly Includes Speculative Future
18 Collateral Development.**

19 The No Project Alternative is also fatally flawed because it assumes significant
20 collateral development by Respondents in two areas neighboring LAX: the LAX
21 Northside Area and the Continental City site. AR 12:005155 (Draft EIS/EIR describing
22 alternatives). The inclusion of these assumed projects and their impacts (e.g., air quality
23 and traffic) in the No Project Alternative drives up the apparent impacts above those of
24 the proposed project, further skewing the EIR's analysis. In fact, projects on these sites
25 were authorized in the early 1980s and abandoned long before the Notice of Preparation
26 ("NOP") for the Master Plan EIR was initially released in June 1997. AR 78:044373
27 (NOP). As described below, future construction of the Northside and Continental City
28

1 projects is speculative, at best, and cannot lawfully be included in the No Project
2 scenario. See CEQA Guidelines § 15126.6(e)(2); Inyo County II, 124 Cal.App.3d at 12.

3 **1. Continental City Project**

4 The Continental City site is a vacant lot at the far southeast corner of LAX that
5 would be developed with the Intermodal Transportation Center ("ITC") under Alternative
6 D. AR 34:017267 (drawing of No Project Alternative); AR 34:017273 (drawing of
7 Alternative D). In the early 1980s, Continental Development Corp. ("Continental"), not
8 Respondents, applied for and received certain approvals from the City of Los Angeles
9 relating to the development of a massive office, hotel and retail complex on the
10 Continental City site (3 million square feet of office and hotel space and 100,000 square
11 feet of retail space). AR 12:005155 (Draft EIS/EIR); AR 39:020700-01 (Final EIR); AR
12 111:056936.0159-0247 (Exh. 3(H) to City of El Segundo's Sept. 18, 2001 comment letter
13 documenting Continental City project). This project was never built, however, and in
14 1996 Respondents acquired the site for possible aviation development in conjunction with
15 the Master Plan now being challenged. AR 111:056936.009-104 (Exh. 3(B) to the City
16 of El Segundo's Sept. 18, 2001 comment letter).

17 By including the Continental City Project in the No Project Alternative, the EIR
18 assumes that Respondents could and would, by 2015, develop the 28.5 acre Continental
19 City site according to the approvals earlier received by Continental. AR 12:005155
20 (Draft EIS/EIR); AR 19:008903 (Draft EIS/EIR, Land Use Technical Report); AR
21 39:020700-01 (Final EIR). However, the Administrative Record in this case fails to
22 include any evidence to support such an assumption. Moreover, the EIR's assumption
23 that the project will go forward is completely at odds with the statements made by LAWA
24 when it acquired the property in 1996:

25 The property is being purchased for future airport development. The
26 development of the property has not been determined and will be part of the
27 Master Plan process in determining future use of the sites. The Department
28 intends to maintain current utilization of the properties until the completion
of the Master Plan and appropriate environmental review.

AR 111:056936.0102 (BOAC July 9, 1996 Agenda, Item 8).

1 This 1996 statement illustrates that Respondents have no intention to develop the
2 site for the commercial mixed-use development originally proposed by Continental 20
3 years ago. In fact, LAWA's April 2001 Quarterly Project Status Report (AR 111:
4 056936.0706-08 (Exh. 3(K) to the City of El Segundo's Sept. 18, 2001 comment letter))
5 demonstrates that it is foreseeable that Respondents would pursue aviation development
6 of the site (Parking Lot A: "additional long-term parking spaces at the former Continental
7 City site"), rather than any non-aviation development, if its Master Plan proposals for the
8 site do not proceed. Nothing in the Administrative Record supports the contrary
9 assumption in the EIR.

10 **2. LAX Northside Project**

11 The property the EIR refers to as the LAX Northside area is located directly north
12 of and along most of the length of the LAX northern border. AR 12:005154 (Draft
13 EIS/EIR No Project Alternative drawing), AR 12:005263 (Draft EIS/EIR). In the early
14 1980s, LAWA received certain approvals from the City of Los Angeles relating to
15 massive development of the area. AR 12:005263 ("development of about 340 acres of
16 commercial, recreational, and airport-related industrial land uses, totaling 4.5 [million
17 square feet] on 12 parcels.") With the exception of the Westchester Parkway, the project
18 was never built. Now, the EIR assumes that LAWA could and would by 2015 develop
19 the entire Northside property in the intensive manner contemplated by the decades-old
20 plans. AR 12:005155 (Draft EIS/EIR). As with the Continental City project discussed
21 above, the Northside project cannot reasonably be expected to occur, and therefore is
22 improperly included in the No Project Alternative.

23 Development of the Northside project as approved in the 1980s is not reasonably
24 foreseeable because Respondents have abandoned that ambitious project design due to its
25 serious traffic and other impacts. In the nearly 20 years since LAWA obtained its
26 approvals for the Northside project, it has had more than adequate time and opportunity to
27 undertake development of that project if that were its intent. AR 111: 056936.0709 et
28

1 seq. (Exh. 3(C) to the City of El Segundo's Sept. 18, 2001 comment letter). The
2 Administrative Record is totally devoid of evidence supporting a conclusion that it would
3 be economically and otherwise feasible for Respondents to proceed with the Northside
4 project as originally conceived. To the contrary, Respondents' true plans for the
5 Northside area appear to be those described for Alternatives A, B and C in the Draft
6 EIS/EIR (AR 12:005158, 005167, 005173) or Alternative D in the Supplemental EIS/EIR
7 (26:013194-95). Each of these build alternatives describe development of the property
8 that is less intensive than the original plans for the Northside project. For example,
9 Alternative D assumes about 50% less traffic would be generated by Northside
10 development than the No Project Alternative assumes.¹⁷ AR 26:013194-95.

11 Respondents have never provided any support for their bare conclusion that the
12 construction of the Northside project (and its significant environmental impacts) would be
13 a reasonably foreseeable consequence of not approving the Master Plan. See AR
14 111:056429-31 (City of El Segundo's Sept. 18, 2001 comment letter); AR 119:60243-44
15 (City of El Segundo's Nov. 4, 2003 comment letter). Instead, Respondents' responses to
16 comments assert in a conclusory fashion that "[i]t is reasonably expected that a practical
17 result of the Master Plan's disapproval would be the implementation of the existing LAX
18 Northside project in accordance with its current entitlements." AR 39:020700. However,
19 CEQA requires more than the "bare conclusions" of a public agency. Santiago County
20 Water Dist. v. County of Orange, 118 Cal.App.3d 818, 831 (1990). Instead, the agency
21 must provide the basis for its conclusions and assumptions, so that "the public and
22 decision-makers, for whom the EIR is prepared, [may] make an independent reasoned
23 judgment." Id. Here the public, reading the Master Plan EIR, could not make any
24 judgment as to whether Respondents made reasonable assumptions concerning the
25

26 ¹⁷ Moreover, LAWA is now actively pursuing development of a new administration
27 facility on land previously designated for development as part of the Northside project,
28 providing further evidence of Respondents' abandonment of the 1980s plans for the area.
AR 111:056936.1151-94 (Exh. 3(R) to the City of El Segundo's Sept. 18, 2001 comment
letter).

1 development of the Northside area under the No Project Alternative, because the EIR
2 provides no basis for that assumption.

3 Absent some justification, Respondents' strategy of including collateral
4 development projects in the No Project Alternative appears designed solely to inflate the
5 environmental impacts of that alternative in order to make Alternative D seem
6 environmentally superior. Because the EIR's unreasonable assumptions in this regard are
7 not supported by substantial evidence, the EIR's description of the No Project Alternative
8 violates CEQA. PCL, 83 Cal.App.4th at 919-920.

9 **C. The No Project Alternative Includes Unlawfully Segmented Activities
10 That Should Have Been Considered Instead in the Analysis of
Alternative D.**

11 During the master planning process, Respondents engaged in piecemeal approvals
12 and implementation of developments that further long-term expansion at the airport.
13 These developments fall within the proper scope of the Master Plan, but instead the EIR
14 adds them to the No Project Alternative. AR 28:014193-96 (EIR Supplement Appendix
15 SB, 42-45, explaining that various improvements undertaken during the Master Plan
16 process "were accounted for in the Draft EIS/EIR as part of the future No Project
17 Alternative."). The EIR thus shows significant impacts caused by the new remote
18 terminals and passenger boarding facilities, expanded existing passenger terminals,
19 expanded cargo facilities, airfield modifications and expanded automobile parking at the
20 airport only for the No Project Alternative. As described in Argument Section II(C),
21 above, the EIR fails to disclose the impacts of those segmented projects as part of the
22 "build" alternatives. The EIR concedes that the No Project Alternative "includes all
23 projects that [were] under construction or ha[d] been completed between 1997 (baseline
24 year) and the release of" the Draft EIR. AR 12:005139. By showing the impacts of these
25 piecemeal airport development projects only in the discussion of the No Project
26 Alternative, Respondents further inflate the apparent impacts of the No Project
27 Alternative relative to the proposed project.
28

1 In a closely analogous situation, the court in Inyo County II, 124 Cal.App.3d at 6,
2 rejected a city's attempt to avoid examining the impacts of the groundwater extraction it
3 began while the project was under review. The pre-project conditions that constituted the
4 no project alternative in that case were readily ascertained from the level of groundwater
5 extraction prior to the construction, several years earlier, of an aqueduct to transfer that
6 groundwater. Id.; see also Arviv Enter., 101 Cal.App.4th at 1336 (EIR was required to
7 avoid segmenting review of 5 already built houses—which had undergone their own
8 limited environmental review—from 16 other houses later proposed by same party);
9 Guidelines §15378(a) ("'Project' means the whole of an action"). Similarly, here, the
10 pre-project conditions are readily measured from the time LAX began the master planning
11 process in 1995. AR 34:017467 (Final EIS/EIR stating that master planning began in
12 1995); see also AR 60:037699 (initiation of LAX Master Plan senior policy group
13 meetings in 1995).

14 **D. The EIR Unlawfully Assumes that Significant Environmental Impacts
Under the No Project Alternative Would Not Be Mitigated.**

15 The EIR also dramatically overstates the impacts of the No Project Alternative by
16 assuming that no mitigation would be undertaken for the significant environmental
17 impacts of the projects projected to occur under that alternative. AR 124:062276 (lines
18 18-22) (May 24, 2004 Joint Commission meeting on the LAX Master Plan); see AR
19 39:020705 ("There is not a requirement or means under CEQA or NEPA to mitigate
20 environmental conditions that are not the result of a 'project' . . ."); id. ("Without the
21 Master Plan and the EIS/EIR mitigation measures, LAWA and FAA are restricted by
22 federal law in the expenditure of airport funds within off-airport areas for addressing
23 existing environmental impacts"). In fact, for almost every impact category, Respondents
24 presume that mitigation approved as part of Alternative D would not occur for the same
25 or similar impacts projected under the No Project scenario. See, e.g., AR 39:020724
26 ("[T]he airport-wide detailed drainage plan required for the build alternatives . . . would
27
28

1 not occur under the No Action/No Project Alternative," resulting in greater flooding
2 impact); id. (No Project Alternative contains "no mechanism that would trigger the need
3 to adopt or implement measures [to mitigate water quality], which only appl[y] to the four
4 build alternatives"); AR 39:020727 (traffic improvements under Master Plan would
5 improve traffic conditions compared with conditions under No Project Alternative); AR
6 39:020742 (mitigation for single event noise under Master Plan would not occur under
7 No Project Alternative).

8 As a result, the EIR paradoxically reports greater environmental impacts in areas
9 such as flooding, traffic, noise, air and water quality impacts under the No Project
10 Alternative than under Alternative D, which *does* contain mitigation. See, e.g., AR
11 39:020724, 020727, 020742. This ignores CEQA requirement that agencies mitigate the
12 significant effects of their actions to the extent feasible. CEQA Guidelines §§ 15370,
13 15091-92. Contrary to the EIR's approach, Respondents were required to account for
14 mitigation as part of the collateral development and other future projects that Respondents
15 assume for the No Project Alternative. Accordingly, the EIR's assumption of no
16 mitigation for the extensive development assumed for the No Project Alternative further
17 skews the environmental analysis and violates CEQA.

18 **E. Because of the Invalid Definition of "No Project Alternative" Used, the
19 EIR's Identification of the Environmentally Superior Alternative Is
Improper.**

20 To confirm the unreasonableness of the EIR's analysis of the No Project
21 Alternative, one need only look at the EIR's conclusion regarding the environmentally
22 superior option. CEQA Guidelines § 15126.6(e)(2) (EIR must identify environmentally
23 superior alternative). Despite the enormity of the construction involved in the more than
24 \$11 billion Project, the EIR identifies Alternative D as environmentally superior to the No
25 Project Alternative. AR 26:013200.1-013200.2 (Supplemental Draft EIS/EIR); see also
26 125:062713 (lines 10-15) (June 14, 2004 Joint Commission meeting on the LAX Master
27 Plan Program). Indeed, as noted above, Respondents repeatedly sold Alternative D to the
28 decision makers and the public as having "the least amount of unavoidable impacts of all

1 the alternatives." AR 125:062713; see AR 124:062277 (lines 3-9), 062279 (lines 7-14);
2 133:066019 (lines 15-19).

3 As described above, Respondents' conclusion that Alternative D is superior to the
4 No Project Alternative was arrived at only by inflating the impacts of the No Project
5 Alternative. To this end, Respondents unlawfully manipulated the no project portfolio to
6 include speculative future projects, segmented past and future development that should be
7 considered part of the Master Plan, and discounted the mitigation that would be required
8 for the impacts of all of those actions. An EIR must "provide decision makers with
9 information they can use in deciding *whether* to approve a proposed project," NRDC, 103
10 Cal.App.4th at 284 (emphasis in original) (quotation marks omitted), as well as the
11 advantage of *not* approving a project. Inyo County II, 124 Cal.App.3d at 9. Because the
12 EIR misleads the decision maker and the public as to the impacts of both of these options
13 by inaccurately identifying the environmentally superior alternative, it fails as an
14 informational document and must be invalidated.

15 **V. THE EIR FAILS TO DISCLOSE THE FULL EXTENT OF THE
16 PROJECT'S ADVERSE ENVIRONMENTAL IMPACTS.¹⁸**

17 **A. The EIR's Analysis of Air Quality Impacts is Seriously Flawed.**

18 The South Coast Air Basin, within which LAX is located, has the worst air
19 pollution in the nation. Alliance of Small Emitters/Metals Indus. v. South Coast Air
20 Quality Mgmt. Dist., 60 Cal.App.4th 55, 57 (1997). It is designated as failing to attain

21
22 ¹⁸ The City of El Segundo has previously commented extensively about Respondents'
23 failure to adequately analyze the Project's water quality and biological impacts. AR
24 111:056472-73 (Sept. 18, 2001 comment letter on water quality impacts); AR
25 111:056713-34 (expert comments on water quality impacts submitted with Sept. 18, 2001
26 comment letter); AR 111:056480-83 (Sept. 18, 2001 comment letter on biological
27 impacts); AR 111:056735-62 (expert comments on biological impacts submitted with
28 Sept. 18, 2001 comment letter); AR 119:060261 (Nov. 4, 2003 comment letter on water
quality impacts); AR 119:060411-25 (expert comments on water quality impacts); AR
119:060266-67 (Nov. 4, 2003 comment letter on biological impacts). To avoid
unnecessary repetition, the City of El Segundo has decided not to include arguments
about these legal deficiencies in this Memorandum. El Segundo therefore incorporates by
reference the arguments submitted by Petitioner ARSAC regarding the EIR's failure to
adequately analyze the Project's water quality and biological impacts.

1 both National and California Ambient Air Quality Standards for ozone, carbon monoxide
2 (CO), and PM10 (particulate matter with a diameter less than or equal to 10 microns). It
3 is also designated to be in "extreme" nonattainment for ozone under the federal Clean Air
4 Act, 42 U.S.C. § 7401 et seq. AR 36:018288-89 (Final EIR); 137:067795 (expert air
5 quality analysis submitted with the City of El Segundo's Dec. 2004 comment letter).
6 Respondents acknowledge that the LAX Master Plan will exacerbate the already
7 extremely dirty air in the Los Angeles area. AR 36:018357. It is therefore vitally
8 important that the EIR accurately identify, and design effective mitigation for, the
9 Project's significant impacts to air quality.

10 The EIR's air quality analysis is riddled with errors. Air quality impacts for
11 Alternative D were improperly minimized by the EIR's underestimate of the air traffic
12 and activity levels that Alternative D could serve, and the exclusion of unlawfully
13 segmented projects. In addition, the EIR unlawfully underestimates air pollutant
14 emissions by separately analyzing on-airport and off-airport impacts, by excluding
15 emissions of PM2.5 (particulate matter 2.5 microns or less in diameter), and by excluding
16 emissions from aircraft engines in reverse thrust operations. Moreover, Respondents
17 failed to adopt feasible mitigation measures for the air quality impacts that the EIR
18 identified as significant. The mitigation that was adopted is entirely illusory. For all of
19 these reasons, the air quality analysis violates CEQA.

20 **1. The EIR Underestimates Emissions by Assuming an
21 Unrealistically Low Level of Airport Activity Under
Alternative D.**

22 The Final EIR assumes an unsupportably low level of airport activity of 78.9 MAP
23 for Alternative D. AR 34:017548 (assuming 78.9 MAP in 2015). The actual capacity of
24 Alternative D is 87 MAP or more. See Argument Section II(A) above. As the City of El
25 Segundo's air quality experts noted, "[m]ost sources of emissions from Alternative D,
26 except construction, would be expected to scale linearly with MAP and would therefore
27 be about 10 percent higher than reported in the Final EIR." AR 137:067788. Because the
28 EIR's capacity assumptions for Alternative D, and corresponding estimates of Alternative

1 D passenger levels and air emissions, are not supported by substantial evidence, the EIR
2 must be invalidated.

3 **2. The EIR Underestimates Emissions by Improperly Excluding
4 Master Plan Projects from the Alternative D Air Quality
Analysis.**

5 As described in Argument Section II(C), above, the EIR unlawfully excluded
6 numerous Master Plan projects and their impacts from the project description, thereby
7 significantly underestimating environmental impacts from Alternative D. Chief among
8 those impacts is air quality. For example, Alternative D excludes analysis of the massive
9 air emissions from constructing two new cargo facilities totaling 295,000 square feet and
10 demolishing various other buildings in connection with the Century Cargo Complex
11 redevelopment. See AR 111:056936.1084-1105 (Exh. 3(M) to the City of El Segundo's
12 Sept. 18, 2001 comment letter, describing the Century Cargo complex); AR 28:014193-96
13 (Appendix S-B, figure S9, 45-46). Not only are these emissions not included in
14 Alternative D, but as described in Argument Section IV, above, they *are* included in the
15 No Project Alternative, thereby further distorting the apparent relative impacts of
16 Alternative D.

17 Even more disturbing, the Final EIR excludes air quality impacts from a major
18 element – the LAX Northside Development – that the EIR *concedes* is part of Alternative
19 D. AR 26:013194-95; 41:022005. The Northside Project envisioned for Alternative D is
20 a scaled-back version of the Northside Project included in the No Project Alternative. AR
21 26:013194-95 (Supplemental Draft EIS/EIR). The air quality impacts from both the
22 construction and operation of this 340-acre office, hotel, and retail development will
23 certainly be significant. Id. Emissions from Northside traffic alone, which the
24 Supplemental Draft EIS/EIR estimates at 3,152 morning peak hour trips and 3,040
25 evening peak hour trips, are daunting. Id. By failing to include these emissions in the air
26 quality analysis for Alternative D, the Final EIR effectively assumes the level of
27 emissions will be zero. Because Respondents' utter failure to account for Northside
28

1 emissions precluded informed decision making, it is necessarily a prejudicial abuse of
2 discretion. Bakersfield Citizens for Local Control, 124 Cal.App.4th at 1198.

3 Respondents attempted to justify this omission by asserting that they would
4 conduct environmental analysis of LAX Northside later. AR 41:022005. This deferral is
5 entirely inconsistent with CEQA's mandate "that an EIR must include an analysis of the
6 environmental effects of future expansion or other action if: (1) it is a reasonably
7 foreseeable consequence of the initial project; and (2) the future expansion or action will
8 be significant in that it will likely change the scope or nature of the initial project or its
9 environmental effects." Laurel Heights I, 47 Cal.3d at 396. In Laurel Heights I, the
10 Court found it "indisputable that the future expansion and general type of future use is
11 reasonably foreseeable," notwithstanding the fact that the University had not yet decided
12 "precisely how they will use the remainder of the building." Id. at 396-97 (emphasis in
13 original).

14 Likewise, here, LAX Northside is a foreseeable component of Alternative D
15 because the EIR expressly incorporates it in the project description. AR 26:013194-95.
16 Indeed, some variation of the project appears in every single build alternative discussed in
17 the EIR. AR 12:005158 (Alternative A), 005167 (Alternative B), 005173 (Alternative C);
18 AR 26:013194-95 (Alternative D). Further, emissions estimates for the Alternative D
19 Northside project would not be speculative. Respondents did not find it too speculative to
20 include emissions from the No Project Alternative Northside project in that analysis. AR
21 12:005155; see Argument Section IV, above. To allow Respondents to selectively
22 determine when to include emissions from future projects and when to leave them out
23 would be to allow them to evade CEQA's requirement that they analyze environmental
24 impacts of the Project as a whole. Laurel Heights I, 47 Cal.3d at 397.

25 **3. The EIR Underestimates Emissions by Unlawfully Separating
26 On-Airport and Off-Airport Impacts.**

27 The Final EIR drastically understates the total air quality impacts by separately
28 quantifying air emissions from on-airport and off-airport sources. AR 36:018284-86.

1 This is a fatal error. LAWA seeks to justify this error by claiming a need to compare on-
2 airport and off-airport emissions to different environmental baselines. Id. This strategy,
3 however, has no scientific support and impermissibly segments the components of the
4 Project's air quality impacts, resulting in a failure to disclose the full extent of impacts.

5 Evaluating projected emissions from on-airport and off-airport sources separately,
6 the EIR concludes that Alternative D will result in significant impacts for some, but not
7 all, pollutants. AR 36:018345-48 (Final EIR tables F4.6-25 through F4.6-28). The City
8 of El Segundo's air quality experts concluded that, had the EIR properly calculated "the
9 Project's total impacts, i.e. on-airport operational and construction plus off-airport
10 emissions/concentrations," it would have been required to disclose "significant project
11 emissions for all criteria pollutants, no matter which baseline is used." AR 137:067781.
12 The EIR thus failed to disclose these effects as significant, and in understating the
13 impacts, it likewise failed to design mitigation to address them.

14 **4. The EIR Impermissibly Fails to Analyze Emissions of PM2.5.**

15 The air quality analysis also violates CEQA by failing to evaluate the Project's
16 contribution of PM2.5 (particulate matter with an aerodynamic diameter of 2.5 microns or
17 less). The City of El Segundo repeatedly pointed out this omission (AR 111:056592-94;
18 119:060340-43; 137:067777-79), and LAWA eventually acknowledged that the U.S.
19 Environmental Protection Agency ("EPA") established a national ambient air quality
20 standard for PM2.5 in 1997. AR 41:022187 (response to comments). LAWA
21 nonetheless refused to analyze the impact of the Master Plan on levels of this hazardous
22 pollutant. It claimed it was too "difficult to establish whether the area near LAX is in
23 compliance with the federal and state PM2.5 standards," and asserted that analysis of
24 PM10 is an adequate "surrogate." Id.

25 LAWA's rationale is seriously flawed. First, as the City of El Segundo noted in
26 comments, the California Air Resources Board, designated the entire South Coast Air
27 Basin, which encompasses LAX, as in non-attainment for PM2.5 in 2003. AR
28 137:067778. Second, ambient (i.e. baseline) PM2.5 levels may readily be established

1 because there are sixteen PM2.5 monitoring stations in the South Coast Air Basin that,
2 with one exception, have been collecting data since 1999. Id. Third, the fact that the
3 regulatory agencies have not issued guidance containing significance thresholds for
4 PM2.5 is irrelevant. Evidence that the LAX Master Plan will generate significant
5 emissions of a dangerous pollutant requires that the impact be analyzed and disclosed.
6 Protect the Historic Amador Waterways v. Amador Water Agency, 116 Cal.App.4th
7 1099, 1108-09 (2004) (regulatory standards "cannot be used to determine automatically
8 whether a given effect will or will not be significant"; agency must consider other
9 evidence of significant impacts); see Berkeley Jets, 91 Cal.App.4th at 1370 (lack of
10 universally-accepted methodology to assess risk did not excuse agency from quantifying
11 risk based on available methodologies).

12 Finally, analysis of PM10 does not adequately substitute for an analysis of PM2.5.
13 As El Segundo's air quality experts explained, the vast majority of the Project's
14 particulate emissions—indeed, over 90%—will be PM2.5, rather than PM10. AR
15 137:067778. This is because most of LAX's operational emissions are from combustion
16 sources such as aircraft, ground support equipment, and passenger traffic, which
17 overwhelmingly emit more PM2.5 than PM10. Id. (air quality comments on EIR noting
18 that the PM2.5 fraction of particulate matter emissions from gasoline engines, diesel
19 engines, and aircraft ranges from 92-99%). Therefore, *the unreported, unanalyzed PM2.5*
20 *emissions will be far greater than the EIR's reported PM10 emissions.* The EIR failed to
21 analyze more than 90% of the particulate emissions that the Master Plan will generate.

22 LAWA's complete omission of PM2.5 analysis "precluded informed decision
23 making" and constituted a prejudicial abuse of discretion. Bakersfield Citizens for Local
24 Control, 124 Cal.App.4th at 1198; id. at 1208 (to "claims [that] omission of information
25 from an EIR essentially should be treated as inquiries whether there is substantial
26 evidence to support the decision approving the project[], we reiterate our rejection of this
27 position."); Berkeley Jets, 91 Cal.App.4th at 1370-71 (agency abused discretion where
28 information "pertaining to toxic air contamination was simply omitted").

1 **5. The EIR Underestimates Emissions by Unlawfully Excluding**
2 **Reverse Thrust Emissions.**

3 Reverse thrust describes the practice of slowing aircraft to taxi speed by setting
4 engines in full reverse. AR 137:067789 (air quality comments submitted with the City of
5 El Segundo's Dec. 1, 2004 comment letter). Like the takeoff mode, the reverse thrust
6 mode generates a high level of Nitrogen Oxide (NOX) emissions in just a short period of
7 time. Id. Reverse thrust operations are regularly used at LAX and account for a
8 significant number of community noise complaints at the airport. AR 137:067790 (El
9 Segundo's air quality expert citing LAX's May 2004 Aircraft Noise Community
10 Response Report). Despite the potential of this practice to greatly contribute to NOX
11 emissions, the EIR fails to evaluate adverse air quality impacts due to reverse thrust.

12 The FAA's "Air Quality Handbook,"¹⁹ which is the FAA's official guidance for
13 airports conducting air quality assessments, provides that "reverse thrust . . . *should be*
14 *included* in calculation procedures." Armi Decl., Exh. 2 at ES 085 (emphasis added).
15 The Handbook even provides a preferred methodology for calculating reverse thrusts:
16 "Time spent in reverse thrust should be combined with takeoff mode emission indices and
17 fuel flow as a means of accounting for reverse thrust mode emissions. Aircraft reverse
18 thrust typically is applied for 15-20 seconds on landing." See id. at ES 087 (an average of
19 15 seconds should be added to takeoff time). In other words, because reverse thrust
20 emissions are similar to takeoff emissions, 15-20 seconds should be added to the takeoff
21 time assumed in the analysis to account for reverse thrust emissions.

22 LAWA ignored this clear guidance (see AR 137:067789-91), once again claiming
23 that "adequate emission factors have not been developed" and "regulatory guidance for
24 calculat[ing] emissions from reverse thrust was not available." AR 40:021108. This
25 purported justification is inaccurate, and inadequate under CEQA. See Berkeley Jets, 91

26 ¹⁹ FAA, Air Quality Procedures for Civilian Airports and Air Force Bases (April 1997),
27 Armi Decl., Exh. 2. The City of El Segundo hereby requests judicial notice of this
28 official guidance document. It is admissible as a regulation (Evid. Code § 452(b)) and
as an official act of a federal agency (Evid. Code § 452(c)). This document was
relied upon by Respondents in preparing the Final EIR. AR 14:006442; AR 36:018273.

1 Cal.App.4th at 1370-71; Protect the Historic Amador Waterways, 116 Cal.App.4th at
2 1108-09.

3 Further, the EIR claims, without scientific basis or evidence in the record, that
4 reverse thrust emissions will be minimal due to the short period of time the practice
5 occupies relative to other operating modes. AR 40:021108. As the FAA Guidance
6 recognizes, high-thrust operations like reverse thrust and takeoff cause the most pollution
7 of any operating mode. Armi Decl., Exh. 2 at ES 086. LAWA's demonstrably inaccurate
8 statements in the Final EIR fall far short of the "good faith, reasoned analysis in
9 response" to critical comments required by CEQA. Berkeley Jets, 91 Cal.App.4th at 1367
10 (quotation marks omitted).

11 As the expert air quality comments on the EIR demonstrate, calculation of reverse
12 thrust emissions in the manner established by the FAA would result in an increase of NOX
13 emissions attributed to takeoff of up to 26 percent. AR 137:067791. By omitting
14 emissions from this source altogether, Respondents again abused their discretion and
15 produced an inadequate EIR. Bakersfield Citizens for Local Control, 124 Cal.App.4th at
16 1198; Berkeley Jets, 91 Cal.App.4th at 1370.

17 **6. The EIR Provides Inadequate Mitigation for Air Quality**
18 **Impacts.**

19 Because the EIR significantly underestimated the Project's air quality impacts, the
20 mitigation measures fail to address the actual impacts. In addition, the proffered air
21 quality mitigation measures are unenforceable. Moreover, the EIR failed to incorporate
22 facially feasible mitigation measures for significant impacts.

23 **a. The Mitigation Measures Are Not Sufficiently**
24 **Enforceable or Effective.**

25 The EIR quantifies ranges of potential emission reductions for measures related to
26 construction and the conversion of ground support equipment. AR 36:018333, AR
27 018335, 0183374 (Final EIR, Tables F4.6-18, F.4.6-19, and F.4.6-20); see AR 137:067796
28 (expert comments describing EIR's air quality mitigation). The EIR and mitigation

1 monitoring and reporting program ("MMRP") both acknowledge that identifiable
2 emission reductions cannot be guaranteed through the proposed measures. AR 36:018333
3 (Final EIR); AR 130:064696 (MMRP stating that "reliable emissions reductions were not
4 able to be quantified for all of these components."). Further, the First Addendum
5 suggests that certain mitigation measures will be found infeasible once the Master Plan
6 starts to be implemented. AR 55:034931. Even more troubling, as discussed further in
7 Argument Section VI(A), below, the Project actually approved by Respondents provides
8 no assurance that important Master Plan elements relied on to mitigate the Project's air
9 quality impacts (including the Ground Transportation Center and northern runway
10 complex reconfiguration) would ever be implemented. Failure to implement those
11 mitigation elements of the Project further exacerbates the inadequacies of the air quality
12 mitigation.

13 Despite the uncertainty that these air quality mitigation measures will be effective,
14 or even implemented, the EIR unreasonably claims credit for a fixed amount of allegedly
15 guaranteed emissions reductions as a result of these measures. See AR 36:018342; AR
16 38:019535 (Final EIR table F4.6-23a). CEQA requires that "feasible mitigation measures
17 will actually be implemented as a condition of development, and not merely adopted and
18 then neglected or disregarded." Fed'n of Hillside & Canyon Assocs. v. City of Los
19 Angeles, 83 Cal.App.4th 1252, 1261-62 (2000) (emphasis in original) (vacating project
20 approval because City failed to make "a binding commitment to implement the [traffic]
21 mitigation measures . . . in a manner that will ensure their implementation"); see also
22 Kings County Farm Bureau, 221 Cal.App.3d at 729-30 (agency may not rely on
23 mitigation measures of uncertain efficacy). The EIR's proposed mitigation program not
24 only fails to ensure that it will actually be fully implemented, the EIR goes so far as to
25 predict that it will not. AR 55:034931. Because the proposed mitigation measures are
26 neither binding nor of reliable efficacy, Respondents abused their discretion in relying
27 upon them. Fed'n of Hillside & Canyon Assocs., 83 Cal.App.4th at 1261-62; Kings
28 County Farm Bureau, 221 Cal.App.3d at 729-30.

1 **b. LAWA Failed to Adopt Feasible Mitigation Measures.**

2 LAWA further abused its discretion by failing to adopt facially feasible mitigation
3 measures for significant and allegedly unavoidable impacts. Pub. Res. Code § 21002
4 ("[P]ublic agencies should not approve projects as proposed if there are . . . feasible
5 mitigation measures available which would substantially lessen the significant
6 environmental effects of such projects."). The EIR acknowledges that even after all
7 proposed mitigation is implemented, the Project will result in significant impacts for on-
8 airport emissions of NOx and SO₂; off-airport traffic emissions of CO, VOC, NOx and
9 PM10; construction emissions of CO, VOC, NOx, and PM10; and on-airport and
10 construction-related emissions of PM10. AR 36:018357.

11 Petitioners' experts submitted comments on the Draft EIS/EIR, the Supplemental
12 Draft EIS/EIR, and the Final EIR that suggested a host of mitigation measures for almost
13 all of these allegedly unavoidable impacts. AR 111:056597-616 (Sept. 18, 2001 comment
14 letter); 119:060359-69 (Nov. 4, 2003 comment letter); AR 137:067797-98 (Dec. 1, 2004
15 comment letter). For example, emissions may be mitigated off-site by retrofitting heaters,
16 boilers, furnaces, generators, and turbines in the South Coast Air Basin, or acquiring
17 offsets through the South Coast Air Quality Management District's Regional Clean Air
18 Incentives Market (RECLAIM) program. AR 111:056608-09; AR 137:067798. The EIR
19 dismissed the retrofitting measures because Respondents do not own the equipment. AR
20 41:022198. However, expert comments demonstrated the feasibility of such off-site
21 retrofitting, even where the agency does not own the equipment. El Segundo submitted
22 evidence demonstrating that these offsetting retrofits are frequently required for large
23 development projects such as the LAX Master Plan. AR 137:067798. The EIR *did not*
24 *even address* mitigating Project emissions by purchasing RECLAIM offsets, which are
25 designed to reduce emissions of NOx and SO₂ in the South Coast Air Basin. Moreover,
26 as discussed in Argument Section VI(B), below, though LAWA itself identified
27 additional, feasible mitigation measures to address air quality impacts in the so-called
28 "Community Benefits Agreement" ("CBA"), it failed to evaluate them in the EIR or

1 adopt them as part of the Project approval. AR 55:035801-02 (Fourth Addendum
2 explaining that "the CBA provides for environmental mitigation measures related to air
3 quality" that were not adopted with the LAX Master Plan).

4 Thus, the evidence in the record fails to support LAWA's finding that no feasible
5 mitigation measures exist to avoid or reduce the Project's significant air quality impacts
6 below a level of significance. AR 37:019254-56. The failure to consider and adopt
7 feasible mitigation measures for significant impacts is *per se* a prejudicial abuse of
8 discretion. Los Angeles Unified Sch. Distr. v. City of Los Angeles, 58 Cal.App.4th 1019,
9 1029 (1998) ("LAUSD") (failure to meaningfully respond to proposed mitigation
10 measures requires invalidation of EIR unless proposed measure is "facially infeasible");
11 see Pub. Res. Code § 21081 (agency may not approve project with significant
12 environmental effects unless effects are mitigated, or mitigation is infeasible but
13 overriding considerations outweigh the significant environmental effects). Accordingly,
14 the EIR must be invalidated.

15 **B. The EIR's Analysis of Health and Safety Fails to Disclose the Full
16 Extent of the Project's Adverse Impacts on Human Health.**

17 As one court recently noted, "[i]t is well known that air pollution adversely affects
18 human respiratory health." Bakersfield Citizens for Local Control, 124 Cal.App.4th at
19 1219. A disturbing result of the EIR's failure to quantify correctly the Project's air
20 emissions, including toxic air emissions, is the corresponding failure to disclose the full
21 extent of the Project's adverse impacts on human health. Indeed, the EIR underestimates
22 and minimizes the significance of human health impacts in numerous regards. In an
23 addendum to the EIR, LAWA stated, "[i]n the absence of data that would require long-
24 range studies of a type well outside of the scope of a CEQA analysis, existing health risks
25 in the area attributable to LAX sources could not be directly calculated." AR 55:035439.
26 To the contrary, such studies are precisely the purpose of a CEQA analysis. The EIR's
27 approach to the Project's health impacts on LAX workers and neighbors – minimizing
28 impacts and then adopting a post hoc rationalization of the flawed analysis – betrays a

1 troubling "build at all costs" mentality. This failure to adequately analyze the public
2 health impact of toxic air pollutant emissions constitutes an abuse of discretion. Berkeley
3 Jets, 91 Cal.App.4th at 1371 (invalidating EIR for airport expansion that failed to
4 properly analyze health impacts due to toxic air emissions).

5 **1. The EIR Fails to Analyze the Health Impacts from Construction
6 Emissions.**

7 The EIR underestimated the Project's human health impacts by failing to evaluate
8 acute health risks due to construction. See AR 111:056620; AR 137:067799 (City of El
9 Segundo 2001 and 2004 expert air quality reports). As stated in the comments, "health
10 impacts from construction are virtually always significant due to emissions of diesel
11 exhaust and acrolein." AR 137:067799. In response, LAWA conceded that
12 "[c]onstruction emissions may be a contributor to short-term [health] impacts," but stated
13 that the EIR's failure to analyze these impacts is excused "because of the difficulty in
14 accurately projecting construction staging." AR 41:022210. CEQA, however, requires
15 an agency to "use its *best efforts to find out and disclose all that it reasonably can.*"
16 CEQA Guidelines §15144 (emphasis added); Berkeley Jets, 91 Cal.App.4th at 1370-71
17 (rejecting respondent's claim that it could not estimate health impacts from toxic air
18 emissions, noting that such a conclusion is appropriate only after a "thorough
19 investigation") (quoting CEQA Guidelines § 15145).

20 By failing to estimate health impacts from construction, which are likely to be
21 significant (AR 137:067799), the EIR omits relevant information and thus precludes
22 informed decision making. Kings County Farm Bureau, 221 Cal.App.3d at 712 (omission
23 of relevant information constitutes abuse of discretion); Bakersfield Citizens for Local
24 Control, 124 Cal.App.4th at 1208. LAWA's claim that this issue will be considered later,
25 during Master Plan implementation, does not suffice. AR 41:022210. Such deferral of
26 analysis is inappropriate under CEQA where, as here, the impacts are reasonably
27 foreseeable and likely to be significant. Laurel Heights I, 47 Cal.3d at 396.
28

2. The EIR Fails to Adequately Analyze the Chronic Health Impacts from Acrolein Emissions.

The emission of acrolein, a pollutant that poses a significant health risk at very low levels, during airport operations is certain to cause significant health impacts, but the EIR substantially underestimated this impact. AR 111:056618-19 (El Segundo's 2001 expert air quality report). LAWA conceded in the EIR that acrolein "emissions associated with LAX operations . . . might be present at concentrations approaching a threshold for acute effects." AR 41:022206. In fact, however, the EIR analysis resulted in a substantial understatement of the emissions and their effects.

As explained by the City of El Segundo's air quality experts, the EIR estimated acrolein emissions using a methodology (M430) that is now widely recognized to significantly underestimate acrolein. AR 111:056619. Indeed, the California Air Resources Board ("CARB") issued an advisory that stated, "any data or results, based on the use of M430 to determine acrolein . . . are suspect and should be flagged as nonquantitative wherever they appear." *Id.* (El Segundo's expert comments, citing CARB 4/28/00). El Segundo's expert concluded that the EIR underestimated acrolein emissions, and the concomitant chronic health impacts, by at least a factor of 10. *Id.*

LAWA's response was that "[w]hether CARB's advisory, which considers acrolein emission factors estimated from source tests in which a DNPH method is used as lower bound estimates, is applicable to the evaluation of aircraft emissions data currently available is uncertain." AR 41:022207. This response is inadequate. "Where comments from responsible experts . . . disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, . . . [t]here must be good faith, reasoned analysis in response." *Berkeley Jets*, 91 Cal.App.4th at 1367. The EIR's claim of "uncertainty" distinctly fails to meet this standard.

LAWA also claims that the EIR's use of an improper test method for acrolein emissions is irrelevant because other factors suggest that acrolein emissions *may have been* overestimated. AR 41:022207-08. For support, LAWA cites studies from other

airports that apparently suggest acrolein emissions may be overestimated or not problematic. AR 41:022208. However, the uncertainty the EIR describes with respect to its acrolein emissions assessment only highlights the inadequacy of the analysis. LAWA was required to undertake a "thorough investigation" of acrolein emissions and "use its best efforts to find out and disclose all that it reasonably [could]." *Berkeley Jets*, 91 Cal.App.4th at 1370. Indeed, the EPA specifically commented on the Supplemental Draft EIS/EIR that "[b]ecause of high hazard indices for acrolein, it is appropriate to validate the estimated (modeled) concentrations of hazardous air pollutants with current monitoring data." AR 47:028152. In other words, EPA urged LAWA to measure the actual concentrations of acrolein in the area from LAX sources, rather than relying on the model. LAWA asserted that such monitoring would be "outside of the scope of a CEQA analysis," and refused to validate its admittedly unreliable methodology. AR 55:035439 (Second Addendum); *see* AR 47:028155 (response to comments stating that monitoring concentrations of hazardous air pollutant attributable to LAX would be "difficult.")

By depending solely on a discredited test method and inconclusive reports from other airports, LAWA failed to make the "meaningful[]" attempt to quantify the amount of [acrolein] emissions that would be emitted from [the Project]" that CEQA requires. *Berkeley Jets*, 91 Cal.App.4th at 1371.

3. The EIR Fails to Acknowledge Significant Cumulative Health Impacts.

At the EPA's urging, LAWA belatedly analyzed the Project's disproportionate health impacts on low-income and minority communities due to toxic air pollutant ("TAP") emissions. AR 47:028151-52 (EPA comments); AR 55:035439-45 (Second Addendum). This belated analysis erroneously concludes that although Alternative D would result in "a small increase in cumulative impacts for one small area nearest the eastern boundary," the increase "would have negligible impact on total risk for areas near the airport because many substantial sources of TAPs exist within the South Coast Air Basin besides LAX." AR 55:035442.

This "drop-in-the-bucket" approach to cumulative impacts has been explicitly rejected by the courts. In *Kings County Farm Bureau*, the court invalidated an EIR that concluded that increased ozone impacts from the project would be insignificant because it would emit relatively minor amounts of precursor pollutants compared with the large volume already emitted by other sources in the county. 221 Cal.App.3d at 717-18. The *Kings County Farm Bureau* court aptly stated, "The relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin." *Id.* at 718. Similarly, in *LAUSD*, the court invalidated an EIR that deemed a project's cumulative traffic noise impact insignificant in light of existing traffic noise in the project area. 58 Cal.App.4th at 1025-26.

Likewise, here, LAWA may not minimize the Project's cumulative health impacts to neighboring communities by comparing them to the already significant health impacts from toxic air contaminants in the region. Indeed, existing adverse conditions weigh in favor of a finding of significance. *Kings County Farm Bureau*, 221 Cal.App.3d at 718. The EIR must therefore be invalidated.

4. The EIR's Failure to Identify Impacts Results in a Failure to Provide Adequate Mitigation Measures, and Requires Invalidation of the EIR.

Because the EIR failed to adequately analyze the human health impacts, it also failed to design appropriate mitigation measures for the Project's significant health impacts due to toxic air emissions. First, as explained in expert comments, the mitigation measures that are inadequate to substantially lessen the Project's air quality impacts (*see* Argument Section V(A)(6), above) also fail to adequately mitigate the Project's health impacts. AR 111:056622; 137:067800. In addition, the EIR did not identify any mitigation measure specifically designed to reduce health impacts, which as comments noted, require a different approach than air quality mitigation. AR 111:056622-23; AR 119:060376; AR 137:067800. For example, the EIR failed to consider a measure

proposed in expert comments: treating the intake air of nearby sensitive receptors that would be most affected by LAX's polluting operations. *Id.* In response to comments, LAWA acknowledged that such a measure could improve indoor air [quality], but conclusorily stated that "indoor air quality is not a primary issue for exposure to [toxic air pollutants]." AR 41:022214. CEQA does not permit such an unsupported rejection of mitigation measures proposed by experts. *See Berkeley Jets*, 91 Cal.App.4th at 1367; *LAUSD*, 58 Cal.App.4th at 1029; *see also Santiago County Water Dist.*, 118 Cal.App.3d at 831 ("[T]o fulfill its informational purpose, [t]he EIR must contain facts and analysis, not just the bare conclusions of a public agency."). Accordingly, the EIR must be invalidated. *Berkeley Jets*, 91 Cal.App.4th at 1371 (invalidating EIR where toxic air emissions were not quantified, ordering agency to "discuss what mitigation measures are necessary").

C. The EIR's Analysis of Noise Impacts Fails to Comply With Legal Requirements.

The communities around LAX live with significant problems associated with high noise levels. The City of El Segundo has submitted extensive comments, including expert analysis, regarding the effects of noise on nearby residents and businesses. AR 111:056439-47; AR 119:060247-50; AR 111:056936.1332 (expert analysis that "[f]or those who live near airports, noise from departing and arriving aircraft has been a constant source of distress, interfering with normal speech, interrupting sleep, and disrupting a wide range of activities.").

Other studies also support these concerns about the adverse effects of the noise generated by LAX. For example, a UCLA study – "Effects of Jet Aircraft Noise on Mental Hospital Admissions" – found a 29% increase in nervous breakdowns in the high noise area near LAX and attributed that elevated level to the presence of airport noise. AR 56:036007. It also notes that "Los Angeles International Airport is probably one of the most damaging of major airports in terms of aircraft noise effects on residents." AR 56:036004; *see also* AR 56:036051-63 (study finding children at the four noisiest

1 elementary schools in the LAX area have higher blood pressure, are more likely to fail on
2 cognitive tasks, and are more likely to give up on a task before the time designated to
3 complete it has elapsed, than children at quieter schools).

4 In fact, LAX's operations have for years exposed surrounding residences to noise
5 levels in excess of the 65 CNEL standard established by the State of California. Calif.
6 Code of Regs, tit. 21, § 5012 (California Airport Noise Standards); AR 39:020737-42
7 (Topical Response TR-LU-3). Although LAWA has adopted an Aircraft Noise
8 Mitigation Program ("ANMP") to provide sound insulation in affected homes, it has
9 made only marginal progress towards the goal of providing sound insulation for the
10 33,000 plus homes within the 65 CNEL contour. AR 39:20739 (estimating that 6,685 of
11 the 33,099 residences have been insulated); AR 39:020738 (noting that sound insulation
12 of residences is unlikely to be completed until 2015, despite edict in a 2001 Caltrans order
13 that insulation should be completed by 2008).

14 The Project will worsen the substantial adverse noise impacts of LAX. As the
15 County ALUC explained in finding the Project inconsistent with the County Land Use
16 Plan, the Project exposes an additional 170 acres of land to an unacceptable level of
17 noise, and subjects three schools and 1,823 residential units to higher noise levels than
18 they now experience. AR 128:063794 (ALUC Staff Report on LAX Master Plan
19 Consistency Review); AR 129:064639 (ALUC Resolution finding LAX Master Plan
20 inconsistent with County Land Use Plan). Noise impacts will increase with the number of
21 aircraft operations. Though the EIR identifies significant noise impacts, it fails to
22 acknowledge the full extent of such impacts, because it artificially limits the operations
23 assumed under Alternative D. See Argument Section II(A) above.

24 The EIR does not satisfy CEQA's mandate to identify and analyze the full scope of
25 the Project's significant noise impacts. CEQA Guidelines §15126.2(a) ("An EIR shall
26 identify and focus on the significant environmental effects of the proposed project.");
27 Pub. Res. Code § 21060.5 ("'Environment' means the physical conditions which exist
28 within the area which will be affected by a proposed project, including ... noise." In

1 particular, the EIR fails to analyze single-event noise levels as required by Berkeley Jets,
2 91 Cal.App.4th at 1382-83. It also relies on an outdated 1996 – rather than an updated
3 2000 – baseline, resulting in a failure to disclose the full scope of noise impacts.

4 **I. The EIR's Single-Event Noise Analysis is Insufficient.**

5 **a. The EIR Improperly Uses Averaging Rather Than
6 Disclosing True Single-Event Noise Impacts.**

7 The City of El Segundo has previously commented on the EIR's failure to analyze
8 single-event noise impacts as required by Berkeley Jets. AR 111:056444-45;
9 119:060248-49, 060284-85. In Berkeley Jets, the court invalidated an EIR for planned
10 improvements of Oakland International Airport because, *inter alia*, it failed to analyze the
11 impacts of single noise events (e.g., individual flights, especially at night) that would be
12 generated by the proposed project, and instead relied solely on a common noise level
13 indicator – Community Noise Equivalent Level ("CNEL") – that evaluates average noise
14 levels over a 24-hour period. 91 Cal.App.4th at 1382 (an agency "cannot simply ignore
15 the CEQA standard of significance for assessing noise, the credible expert opinion calling
16 for further evaluation of the impact of single-event-noise, and public concern over the
17 noise created by increased nighttime flights."). The court explained that the purpose of
18 single-event noise analysis for nighttime flights is to "measure how many high-noise
19 events will take place during the noise-sensitive nighttime hours [and] to describe the
20 effects of noise on normal nighttime activities, such as sleep." Id. at 1382 n.23.

21 In contrast, CNEL "describes weighted average noise conditions." AR 39:020760.
22 (topical response to comments). The CNEL contour is derived by adding all the noise
23 events that occur during the course of a year, and dividing the total by 365, which
24 represents the noise level on "an average day of the year." AR 39:020760-61. This
25 technique does not differentiate between a small number of very large noise events and a
26 large number of very small occurrences. Because the use of average noise levels fails to
27 capture the effects of very loud individual noise events, the Berkeley Jets court required
28 the Port of Oakland to conduct a single-event noise analysis. 91 Cal.App.4th at 1382

1 ("CEQA requires that the Port and the inquiring public obtain the technical information
2 needed to assess whether the [airport development plan] will merely inconvenience the
3 Airport's nearby residents or damn them to a somnambulate-like existence.").

4 As in Berkeley Jets, Respondents' noise analysis was initially limited to a CNEL
5 analysis. AR 12:005196-97. Respondents now claim to have complied with the Berkeley
6 Jets mandate to analyze single-event noise impacts by adding analysis in the Final EIR.
7 See, e.g., AR 39:020762 ("To further address single event impacts under CEQA case law,
8 the Supplement to the Draft EIS/EIR includes an analysis of nighttime single event sleep
9 disturbance impacts. . ."). In reality, however, in the EIR, Respondents simply employed
10 another averaging technique and remain in violation of the rule of Berkeley Jets.

11 **b. The EIR's Analysis of Nighttime Awakenings Due to
12 Single Event Noise Is Legally Inadequate.**

13 In the EIR, Respondents announced that nighttime noise impacts would not be
14 considered significant unless they resulted in ten percent of residents being awakened
15 from sleep once every ten days. AR 28:014336. This threshold, as discussed below, is
16 seriously flawed. Moreover, Respondents again used an *average* sound exposure level
17 ("SEL") of 94 dBA, and used this average in describing noise levels. AR 28:014337.

18 This technique does not represent the single-event noise impact analysis required
19 by Berkeley Jets. The court's concern was with identifying the number and noise level of
20 loud individual events, and analyzing the impacts of those individual events on normal
21 activities, like sleep. 91 Cal.App.4th at 1382 n.23; see also id. at 1376. The court
22 emphasized that both experts and the general public were calling for single-event analysis
23 because of documented and first-hand experience with the hazards of individual noise
24 events. See, e.g., id. at 1376 ("[E]xperts urged the Port to conduct a meaningful analysis
25 of the direct effects of single-event noise levels on speech communication and sleep
26 disturbance in normally quiet residential neighborhood[] areas that fell outside the 65
27 CNEL noise contour."); id. at 1375 ("Over 1,000 Berkeley residents registered their
28 concern over the proposed [airport development plan], declaring the significant increase

1 in noise caused by jet overflights has 'fundamentally transformed our quiet residential
2 neighborhoods, disrupting sleep, study, work and our peaceful enjoyment of our homes,
3 gardens, and parks.'").

4 These experiences are consistent with expert studies submitted by the City of El
5 Segundo that detail the significant risks associated with noise disturbances, and explain
6 the inability of averaging techniques to adequately portray these risks. See AR
7 111:056936.1332-1351, 056936.1343 (documenting damaging effects of noise on quality
8 of life and health, including annoyance and feelings of helplessness, sleep disturbance,
9 speech interference, various physiological problems, and negative impacts on children
10 and their ability to learn, and stating: "It is single-event and maximum noise levels, after
11 all, and not average noise levels, that result in adverse impacts such as sleep disturbance,
12 speech interference and inability to concentrate in school."); see also AR
13 111:056936.1373-1374 (explaining the particular problems associated with single-event
14 noise impacts). Out of recognition of the particular nature of single-event disturbances,
15 the City of El Segundo based its own noise standards, discussed in Argument Section
16 V(C)(4)(a), below, on single events rather than average levels.

17 Rather than producing a meaningful single-event analysis, Respondents contrived
18 an alternative form of averaging. Respondents themselves acknowledge that their 94
19 dBA SEL approach represents an averaging technique, rather than an analysis of impacts
20 of individual noise events. AR 48:028650 ("All flight operations were considered in the
21 calculation of the 94dBA of SEL contour. The frequency of at least once in ten days
22 represents a sum of all operations that carry a level of 94 dBA of SEL."). Such
23 "summation" does not satisfy the Berkeley Jets court's mandate to consider "single
24 events," which requires a determination of the number of events and analysis of their
25 effects on normal nighttime activities. 9 Cal.App.4th at 1382 n.23.

c. **The Threshold of Significance Adopted by the EIR for Nighttime Awakening Is Unjustified and Arbitrary.**

Respondents' selection of the ten percent awakening once every ten days threshold of significance is entirely arbitrary and fails to provide meaningful information to nearby residents. See, e.g., AR 119:060249, 060282, 060290. Use of this threshold resulted in a failure to disclose significant impacts, because very loud individual noise events below this average threshold, while treated as insignificant by Respondents, may nonetheless be highly significant to residents awakened from their sleep. AR 111:056936.1334-1343; AR 111:056936.1374.

Respondents, in determining a threshold of significance, must provide evidence supporting its validity. Yet Respondents fail to provide any support for selecting the ten percent per ten nights threshold upon which they base their entire "single event" analysis. Rather, as explained in expert analysis submitted by El Segundo, Respondents falsely claim that this threshold is equivalent to awakening one percent of the population every night, and suggest that it is based on a credible study written by Federal Interagency Committee on Aviation Noise ("FICAN"), when in fact its only relationship to this study is its correlation to the point on FICAN's noise data trend line that corresponds to Respondents' arbitrarily selected point. See AR 119:060290.

Again, Respondents simply make conclusory statements about their ability to select a noise threshold. For example, Respondents state that "LAWA, as the lead CEQA agency for the LAX Master Plan EIS/EIR, has developed appropriate thresholds of significance regarding single event noise effects, based on a comprehensive review of existing studies and research literature pertaining to the issue." AR 34:017626. But, without explaining what these studies and research literature revealed, they simply declare: "[I]t was determined that the threshold should be set at 10 percent of the area population being awakened at least once in ten days." AR 34:017627. The technical appendix that accompanies the EIR provides no additional support for selecting this

threshold. Instead, it makes the same unsubstantiated statements as the EIR, without explanation or evidence to justify it. AR 28:014336.

Thus, Respondents' entire "single-event" noise analysis is premised on a wholly unjustified and arbitrarily selected significance threshold. This does not satisfy the Berkeley Jets court's mandate to provide single-event noise analysis so that the lead agency "and the inquiring public obtain the technical information needed to assess" the proposed project. 9 Cal.App.4th at 1382.

2. **The EIR's Analysis of Speech Interference Is Legally Inadequate.**

As the City of El Segundo has commented in the past, speech interference is a primary cause of annoyance to individuals. AR 119:060282-83. Speech interference can occur in any setting and can frustrate the general public by interfering with telephone calls, interrupting television and radio listening, and making meaningful conversation impossible. AR 119:060283. The potential for single events to interfere with speech must be considered.

The EIR contains no analysis of the Project's impacts on speech interference for the general public. While Respondents have considered noise interference in the school setting, they acknowledge they have not conducted this analysis in the residential setting. Rather, they claim that effects of noise on speech interference "are reflected in the noise compatibility criteria used for land use impact analysis" in the EIR. AR 48:028635. Respondents do not give a specific reference within this 200 page section that "reflects" speech interference analysis. Nevertheless, it appears that the entire section contains no actual analysis of speech interference in the residential setting. See AR 34:017754-955. In fact, the sole reference to speech interference made in the land use impact analysis refers back to the school disruption analysis contained in the noise section. AR 34:017778. Nowhere in the EIR do Respondents conduct a single-event noise analysis on speech interference on the general public. This does not represent meaningful analysis

that permits informed decision-making, as required by CEQA. CEQA Guidelines §§ 15002(a)(1), 15121(a).²⁰

3. **The EIR's Use of a 1996 Baseline is Inappropriate and Results in the EIR Identifying Less Significant Impacts Than if a More Current Baseline Were Used.**

El Segundo has repeatedly commented on the inappropriateness of using 1996 baseline noise levels in evaluating the significance of the Project's noise impacts. AR 111:056441-42; AR 119:060247-48, 060282. As Respondents acknowledge, noise levels dropped between 1996 and 2000 due to the federally mandated phase-out of noisier aircraft, which is unrelated to the Master Plan process. AR 28:014213 ("the 1996 baseline for noise is represented by the conditions present in 1996. However... the large aircraft fleet operating at the airport was subject to requirements for noise reduction that were to be in place by the end of the year 1999. Comments were received during the public review phase of the Draft EIS/EIR suggesting that a more appropriate representation of current noise conditions would be the Year 2000 because it would incorporate the elimination of the louder fleet of Stage 2 aircraft."); see also AR 34:017633 ("the Year 2000 contours are substantially reduced from the 1996 baseline conditions."); AR 48:028634 ("That year (2000) is generally thought to be more appropriate for the environmental baseline because using 1996 gives the Airport Master Plan the perception of more noise reduction than it should be credited with."). Yet, Respondents have refused to update the baseline to 2000. Using 1996 noise levels, which

²⁰ Respondents' response to the City of El Segundo's comments, supported by expert analysis, does not represent an adequate response to comments and undermines CEQA's fundamental purposes of public disclosure and participation. CEQA Guidelines § 15088(c) ("In particular, the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the [public] comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice."); see also Berkeley Jets, 91 Cal.App.4th at 1367, 1371; Cleary, 118 Cal.App.3d at 357. Respondents' attempts to dismiss the City of El Segundo's expert-supported comments with reference to non-existent analysis does not satisfy CEQA's mandate to provide a "good faith, reasoned analysis in response" to comments.

reflect higher noise, as the baseline, means the increase in noise caused by the Project compared with existing conditions is underestimated. The full impacts are not disclosed.

Although, for CEQA purposes, the baseline will "normally" represent the "physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published," this language must be interpreted flexibly to establish an appropriate baseline. CEQA Guidelines §§ 15125(a), 15126.2(a); Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors, 87 Cal.App.4th 99, 125 (2001) ("[T]he date for establishing [a] baseline cannot be a rigid one. Environmental conditions may vary from year to year and in some cases it is necessary to consider conditions over a range of time periods. In some cases, conditions closer to the date the project is approved are more relevant to a determination whether the project's impacts will be significant."); see also Riverwatch v. County of San Diego, 76 Cal.App.4th 1428, 1453 (1999) ("[e]nvironmental impacts should be examined in light of the environment as it exists when a project is approved."). In the airport planning setting, the Berkeley Jets court specifically directed the Port of Oakland to provide "a more accurate assessment of the existing noise levels around the airport," that accounted for the effects of the phase-out of Stage 2 aircraft. 9 Cal.App.4th at 1383.

Respondents seek to characterize the difference between 1996 and 2000 noise levels as insignificant. AR 39:020759 (LAWA statement that while average noise levels were higher in 1996 than 2000 in some areas, in others they were higher in 2000). Yet, the EIR betrays the discrepancies between the conditions in the two years. For example, Figures F4.1-6 and F4.1-7 graphically illustrate the average noise contours for the LAX area in 1996 compared to 2000. AR 34:017635, 017638; see also AR 34:017637 ("In the Year 2000 conditions, the noise pattern for significant single events at night is both slightly wider and, in the north, longer than for the 1996 baseline along the approaches east of the I-405, but to the west of I-405, the contours are substantially narrower than 1996 baseline conditions.") (emphasis added). These disparities are especially significant

1 for the City of El Segundo, as the 1996 65, 70, and 75 CNEL contours extend about 450
2 feet further into the City than the 2000 contours. AR 34:017634.

3 Rather than substitute an updated and appropriate 2000 baseline for the outdated
4 and misleading 1996 one, Respondents confuse the issue by adding information about
5 2000 conditions to the EIR, without actually treating it as the baseline for analytical
6 purposes. AR 34:017632 (2000 conditions described "for informational purposes.").
7 Instead of evaluating the significance of the Project's noise impacts by comparison to a
8 2000 baseline, Respondents continue to use the extended 1996 noise contours when
9 determining the significance of impacts. See, e.g., AR 34:017639 (road traffic noise
10 analysis using 1996 baseline); AR 34:017649 (construction traffic and equipment noise
11 analysis using 1996 baseline); AR 34:017649-50 (automatic people mover noise analysis
12 using 1996 baseline). This violates CEQA. Pub. Res. Code § 21002.1(a); CEQA
13 Guidelines § 15126.2(a). By evaluating Project impacts against what the community was
14 experiencing in 1996 (i.e., extended noise contours), instead of what it is experiencing
15 today (smaller noise contours), Respondents give the impression that noise increases from
16 the Project, particularly in El Segundo, would be smaller than they actually will be.

17 **D. The EIR's Analysis of Surface Transportation and Circulation Impacts
18 Omits Discussion of Significant Impacts, Understates the Extent of
19 Traffic Impacts, and Fails to Provide Adequate Mitigation Measures.**

20 LAX is located in the heart of a congested, densely populated urban area. See AR
21 34:017253 (Introduction to Final EIR describing challenges to urban airports). The traffic
22 related to LAX operations contributes to widespread and severe traffic congestion on the
23 freeways and the surface streets surrounding LAX. AR 35:018009; AR 35:018010 (Final
24 EIR map showing congestion levels); AR 35:018012 (Table F4.3.2-3, Existing and Future
25 Transportation Deficiencies).

26 The EIR fails to disclose the full extent of traffic impacts, and accordingly fails to
27 incorporate adequate traffic mitigation measures. The traffic analysis is undermined by
28 its complete failure to evaluate significant and foreseeable traffic impacts. Bakersfield
Citizens for Local Control, 124 Cal.App.4th at 1208 (omitting analysis of significant

1 impacts is an abuse of discretion, and is not reviewed under the substantial evidence
2 standard). The analysis presented is rife with technical errors and miscalculations. These
3 analytical deficiencies that pervade the EIR's traffic analysis are more than a "battle of
4 the experts." Courts need not "uncritically rely on every study or analysis presented by a
5 project proponent in support of its position. A clearly inadequate or unsupported study is
6 entitled to no judicial deference." Laurel Heights I, 47 Cal.3d. at 409 n. 12. The EIR
7 fails to provide an adequate analysis of the significant impacts, despite identifying
8 significant impacts of the Project on existing and worsening surface traffic conditions.

9 LAWA's responses to the public and expert comments regarding omissions in the
10 traffic analysis are self-serving rationalizations that evidence a disregard for the
11 importance of full disclosure and accurate analysis. As stated by El Segundo's expert
12 traffic engineer, "The conclusion of the Final EIR, that most of the project impacts from
13 Alternative D would be reduced to insignificance . . . by implementation of the mitigation
14 measures as proposed, is not supportable, in light of the myriad technical problems in the
15 analysis. These problems have now been compounded by the deferral or elimination from
16 the Master Plan of important plan components including the [Ground Transportation
17 Center] . . ." AR 137:067816 (comments of Tom Brohard, P.E. on Final EIR).

18 **1. The EIR's Assumption of an Unrealistically Low Number of
19 Passengers To Be Served Under Alternative D Results in a
20 Substantial Underestimation of Surface Traffic.**

21 As set forth in Argument Section II(A), above, the EIR assumes an unrealistically
22 low level of future air traffic activity, and in particular fails to account for the numbers of
23 passengers beyond 78.9 MAP that can reasonably be expected to be served under
24 Alternative D. The number of passengers translates directly into car trips generated by
25 airport activities. By omitting analysis of approximately 10 million passengers per year,
26 despite the reasonably foreseeable circumstance that the airport could serve that many, the
27 EIR drastically understates the impacts on streets and highways from the implementation
28 of Alternative D. AR 119:60299 ("Serving more than 78 million annual passengers will

1 result in additional traffic impacts to the freeways and street intersections above those
2 identified in the Supplement [to the Draft EIS/EIR].")

3 **2. The EIR Fails to Analyze Reasonably Foreseeable Traffic
4 Impacts That Would Result From the Project in the Event the
5 GTC Is Not Approved and Constructed.**

6 The Project as approved by Respondents requires additional study and evaluation
7 prior to construction of the ground transportation center ("GTC") and other so-called
8 "yellow-light" projects. This is explained more fully at Argument Section IV(A), below.
9 Given the particularly controversial nature of the GTC, it is reasonably foreseeable that
10 the GTC will be deferred, perhaps indefinitely. Again, the EIR's failure to analyze the
11 reasonably foreseeable airport activities and their impacts renders it inadequate.

12 "Without the proposed GTC, the origin and destination of many of the airport trips
13 would [shift] back to the Central Terminal Area and away from the site of the proposed
14 Ground Transportation Center." AR 137:067809. This means that, as with its airport
15 capacity analysis, in its traffic analysis one of the fundamental assumptions used by
16 LAWA in establishing the circulation patterns does not reflect reasonably foreseeable
17 conditions following approval of Alternative D. In the reasonably foreseeable event that
18 the GTC is deferred, or never brought up for approval, the interim or permanent traffic
19 impacts will be significantly different from those disclosed in the EIR. "Using just the
20 passenger and related trips for Alternative D from Table F4.3.2-4 of the Final EIR, nearly
21 12,000 a.m. peak hour trips, over 21,000 Airport peak hour trips, and over 13,000 p.m.
22 peak hour trips would be rerouted. No traffic study or analysis has been conducted of the
23 significantly changed off-airport traffic impacts that would occur under this condition."
24 AR 137:067809 (comment of Tom Brohard, P.E.). The complete omission of any
25 analysis of the Project's traffic impacts in the likely event that the GTC is not constructed
26 precluded an informed decision as to the wisdom of approving the Project in spite of
27 those impacts. Respondents abused their discretion in approving the Project without this
28 essential information. Bakersfield Citizens for Local Control, 124 Cal.App.4th at 1208;
Laurel Heights I, 47 Cal. 3d at 396 (EIR must analyze future foreseeable impacts).

1 **3. The Alternative D Traffic Analysis Assumes an Artificially Low
2 Level of Traffic Based on a Purported "Trip Cap," Without
3 Any Documentation Supporting That the Cap Will Be
4 Implemented.**

5 In the traffic analysis for Alternative D, LAWA assumed an artificially low level
6 of traffic would be generated by the collateral development at LAX Northside, based on a
7 purported "trip cap." AR 26:013085 (Supplemental Draft EIS/EIR); 48:028589 (response
8 to comments). As pointed out in El Segundo's comments, however, the EIR failed to
9 provide any analysis or mechanism to ensure that the assumed reductions of 50 percent in
10 the a.m. peak hour and 57 percent in the p.m. peak hour from the No Project Alternative,
11 can and will be achieved. AR 119:060300; AR 119:060243. By assuming the trip cap,
12 LAWA simply "eliminates" more than 6,000 daily peak hour trips. Even in its response
13 to such comments on the EIR, LAWA provided only a flat assertion that the proposed
14 reduction in future development of the Northside project, from 4.5 million square feet to
15 2.6 million square feet, will reduce the trips as assumed in its analysis. LAWA asserts
16 that the lack of quantitative analysis of trips generated by proposed Northside land uses is
17 justified because "[t]he exact nature and amount of land uses that could occur" has not yet
18 been determined. AR 48:028589 (response to comments). As with its self-serving airport
19 capacity assumptions, LAWA simply asserts a low but unverifiable level of future
20 activity, assumes that artificially depressed activity level in its impacts analysis, and
21 provides no calculations to back it up. It has proposed no monitoring plan or other
22 mechanism to ensure that the Northside peak hour trips do not exceed the "capped" levels
23 assumed in the analysis. AR 137:067810. The Specific Plan requirement for additional
24 study in the event of excess traffic is not linked specifically to the Northside trip cap and
25 does not constitute an enforceable limit on traffic. AR 55:034935. The result is that
26 LAWA improperly understates the traffic impacts, by relying on an illusory "cap" while
27 asserting that the land uses cannot yet be determined.

4. The EIR Omits Or Drastically Understates Impacts on Freeways.

Traffic levels of service (LOS) are identified on a scale from A ("uncongested") to F ("total breakdown"). AR 12:005424. The EIR uses thresholds of significance based on the ratio of the volume served by a roadway segment or intersection to its capacity. AR 12:005433. It identifies roadway impacts as significant if the traffic under Alternative D would result in an increase in the volume to capacity ratio of 0.02 where the current LOS is E or F; or 0.04 for LOS D; or 0.08 for LOS C. Id.

As pointed out by El Segundo, under Caltrans standards, freeway segments operating at LOS E or F must be studied and their impacts disclosed if the project under study adds any traffic to those freeway segments. AR 119:060302-03. In particular, El Segundo's traffic consultant commented that Alternative D would have significant impacts on a number of freeway ramps as well as mainline sections of the I-405 and I-105 freeways near LAX. Id.; AR 119:060311-14.

The Final EIR states summarily in response that "Alternative D would affect freeway segments." AR 39:020874. However, CEQA requires more than a general acknowledgment of adverse effects. A "detailed analysis of how adverse the impact will be is required." Galante Vineyards v. Monterey Peninsula Water Mgmt. Dist., 60 Cal.App.4th 1109, 1123 (1997). Here, El Segundo requested that the EIR examine in detail the Alternative D traffic impacts on the I-405 and I-105 mainline freeway segments near LAX, where the impacts would be "obvious and severe." AR 119:060313.

LAWA's response is that the necessary detailed analysis will not be done until after project approval. AR 48:028674-75 (responses to comments). This violates CEQA's mandate that Respondents "meaningfully attempt to quantify" the Project's impacts. Berkeley Jets, 91 Cal.App.4th at 1371.

Moreover, this is an unacceptable deferral of the analysis of impacts that are reasonably foreseeable now. Stanislaus Natural Heritage Project, 48 Cal.App.4th at 199-206 (invalidating EIR for improperly deferring analysis). The EIR's failure to provide

adequate analysis renders it useless as an informational document and makes it impossible to ascertain the full extent of the mitigation measures that will be needed. This violates CEQA. See Kings County Farm Bureau, 221 Cal.App.3d at 733 ("[An EIR] must contain sufficient detail to help ensure the integrity of the process of decision-making by precluding . . . serious criticism from being swept under the rug."); Sundstrom v. County of Mendocino, 202 Cal.App.3d 296, 306-07 (1988) (CEQA requires environmental review at the earliest feasible stage in the planning process and prohibits deferral of mitigation measure design).

5. The Third Addendum Identifies New Significant Impacts But Was Not Recirculated For Comments, in Violation of CEQA.

As discussed in Argument Section VI(B) below, a Third Addendum to the EIR was released in December 2004, just before the City Council's approval of the project. This Addendum provides a new traffic analysis, whose purpose purportedly is to incorporate improved background traffic conditions because the future Playa Vista development is now projected to be smaller than anticipated. AR 55:035451-52. The Third Addendum discloses new, significant environmental impacts, at intersections and freeway segments not previously identified as significantly affected. AR 55:035774 (new impacts on I-405); compare AR 55:035468 with AR 35:018078-88 (impacts on intersections). This raises two legal problems: First, the last-minute disclosure of new freeway and intersection impacts, in light of Petitioners' comments that more analysis was necessary to identify such impacts, implies the existence of other freeway segments and intersections similarly affected but not yet identified.

Second, as explained in Argument Section VI(B) below, such new significant impacts trigger a requirement that the document be circulated for public review and comment. Instead, Respondents rushed the Addendum to publication at the last minute, with no time for review by the public or decision makers. This did not just violate CEQA, it demonstrated an abiding lack of respect for the CEQA process and for the public value of disclosure of adverse impacts.

VI. RESPONDENTS FAILED TO RECIRCULATE THE EIR AS REQUIRED BY CEQA.

Prior to certification of the EIR, Respondents released four addenda to the EIR. The First Addendum was released in September 2004 and included a description of major changes made to the Project through amendments to the LAX Plan and the LAX Specific Plan, a brief overview and dismissal of three additional alternatives offered by various commenters, and an explanation of alterations made to the Environmental Action Plan. AR 55:035104 et seq. The City of El Segundo submitted comments on the First Addendum. AR 137:067674. However, Respondents never responded to the problems identified in those comments.

In December 2004, on the eve of certification of the EIR, Respondents announced three more addenda totaling more than 700 pages. AR 55:035104 et seq.; AR 55:035446 et seq.; AR 55:035792 et seq. The Second Addendum revised the EIR's analysis of coastal and endangered species impacts and the implications of a rule proposed by the United States Fish and Wildlife Service ("USFWS") regarding designation of critical habitat for the Riverside fairy shrimp, a federally-listed endangered species. AR 55:034912 et seq. The Third Addendum contained a revised analysis of the Project's transportation impacts. AR 55:035446 et seq. The Fourth Addendum addressed three so-called community benefit agreements signed by LAWA. AR 55:035792 et seq. As explained in comments submitted by the City of El Segundo, these three addenda were not actually made available to the public until after the City of Los Angeles had approved the Project and certified the EIR. See AR 141:069629. Consequently, the public had no opportunity to consider, much less comment on, these addenda.

Under CEQA, it was improper for Respondents to introduce and rely on the information in the four addenda without recirculating the EIR for further public review and comment. According to CEQA, an agency must recirculate an EIR when "significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review . . . but before certification." CEQA Guidelines

§ 15088.5(a); see also Pub. Res. Code § 21092.1. New information is "significant" when the "EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." CEQA Guidelines § 15088(a); see also Laurel Heights Improvement Assoc. of San Francisco v. Regents of the Univ. of Cal., 6 Cal.4th 1112, 1129-30 (1993) ("Laurel Heights II").

As detailed below, the four addenda released by Respondents present significant information regarding both substantial adverse environmental effects and potentially feasible mitigation measures. Respondents therefore had an obligation to recirculate the EIR. CEQA Guidelines § 15088.5(a) (non-exclusive list of situations requiring EIR recirculation, including the addition of information demonstrating that: (1) "[a] new significant environmental impact would result from the project," (2) "[a] substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted," and (3) "[a] feasible . . . mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project proponents decline to adopt it").

A. Respondents' September 2004 Addendum Triggered CEQA's Recirculation Requirement By Revealing Significant Changes to the Project and Its Impacts.

The first Addendum discusses eleventh-hour changes that were made to the Project via the LAX Specific Plan. AR 55:034935-37 ("[t]he LAX Specific Plan has been revised in the following areas since the April 2004 version . . ."). In a last-minute effort to gain approval of the Master Plan, Respondents created the so-called "Consensus Plan," whereby the City Council approved the Master Plan Alternative D, but agreed to proceed with only certain elements of the Project. See AR 134:066377-85 (letter from Claudia Culling, Los Angeles Office of the City Attorney, to Los Angeles Planning and Land Use Management Committee, regarding the environmental review implications of the Consensus Plan). This "Consensus Plan" is reflected in the revised Specific Plan, which

1 provides that many Master Plan Project elements (designated the "yellow-light" projects)
2 cannot and will not move forward unless additional study is conducted and additional
3 approvals are obtained. AR 130:064804.

4 The Consensus Plan appears to have grown out of a recognition that some
5 elements of the Master Plan were unpopular with members of the Los Angeles City
6 Council due to their impacts on Los Angeles voters. AR 134:066476 (lines 6-20) (Kim
7 Day, Executive Director of LAWA, explaining that the Specific Plan differentiates
8 between projects to be implemented immediately and projects that require further study
9 based on their public acceptability). The politically expedient response was to remove
10 those elements from the plan, but Respondents recognized that doing so overtly would
11 have required further environmental review of the Master Plan as amended. See AR
12 133:066028 (lines 18-23); AR 134:066385 (letter from Claudia Culling stating: "We
13 conclude that, given the likely magnitude and complexity of the environmental analysis
14 and data collection that could be required if a major component, such as the GTC, were to
15 be deleted from the LAX Master Plan, the preparation and approval process of the
16 required environmental documentation would take from ten (10) months to thirty (30)
17 months under virtually any likely scenario."); AR 134:66447 (lines 3-9) (30-month
18 estimate of additional time to conduct environmental review if yellow-light items
19 removed).

20 Not wanting to delay the Project and incur the additional expense to conduct such
21 review, Respondents devised the "Consensus Plan," which has the practical effect of
22 eliminating the "yellow-light" projects from the Master Plan. AR 135:066904-05
23 (testimony that preparation of the Master Plan studies had cost approximately \$130
24 million and statement by councilmember that "[b]efore we spend another \$130 million,
25 we need to move forward and [get] something done."). Under the Specific Plan, there is
26 no assurance that mitigating elements of Alternative D, like the GTC and the northern
27 runway complex reconfiguration, will ever move ahead. Respondents' decision to
28 "yellow-light" certain project elements destabilized the project description in violation of

1 CEQA, which resulted in significant project impacts that were not analyzed in the EIR.
2 See Mira Monte Homeowners Assoc. v. County of Ventura, 165 Cal.App.3d 357, 365
3 (1985) (accurate, stable and finite project description is the *sine qua non* of an
4 informative and legally sufficient EIR; the defined project and not some different project
5 must be the EIR's bona fide subject).

6 **1. Project Changes Related to the GTC Will Cause Impacts
7 Requiring Analysis And Recirculation.**

8 The Specific Plan expressly singles out the GTC, and provides that if LAWA
9 proposes to pursue it further, it would be subject of further study, while the rest of the
10 Master Plan moves ahead. AR 130:064804 (Specific Plan listing projects requiring
11 Specific Plan Amendment Study). It is reasonably foreseeable, therefore, that
12 Respondents could move ahead with the approved "green-light" elements of the Master
13 Plan and not bother with the controversial "yellow-light" GTC project. This is
14 problematic because the GTC is included in the EIR as a mitigating project element and
15 credited with reducing air quality and traffic impacts at the airport, some to a level of
16 less-than-significant. AR 35:018053 (GTC is one of the primary "drivers for the surface
17 transportation mitigation plan"); AR 35:018090 (explaining the mitigation associated
18 with the GTC); AR 39:020874 (claiming that the GTC will improve local traffic
19 problems). As such, if the "green-light" elements of the Master Plan move forward
20 without the GTC, the impacts to traffic and air quality in the region will be significantly
21 greater than the impacts evaluated in the EIR. AR 137:067809 (traffic expert, Tom
22 Brohard, concluding that without the GTC, nearly 12,000 a.m. peak hour trips, 21,000
23 peak airport hour trips, and 13,000 p.m. peak hour trips would be re-routed, which re-
24 routing was never analyzed in the EIR); AR 133:66099 (lines 5-11) (LAWA staff
25 acknowledgment that they did not know how elimination of the GTC would impact
26 traffic, because no study has been done); see Argument Section V(D)(2), above.

27 The GTC is, according to Respondents, also central to their plan for dealing with
28 security concerns. E.g. AR 124:062275-76 (lines 20-24); AR 39:020756 (GTC eliminates

1 threat of blast at central terminal area). Implementing the Master Plan without the GTC
2 would therefore, under Respondents' theory, have significant ramifications for security,
3 which were not analyzed in the EIR. AR 133:066100 (lines 13-17) (Councilmember
4 statement to LAWA staff: "[S]o we can ask you all the questions in the world right now
5 about security issues, but to be real blunt, it's hard to answer them since we don't have
6 those specifics, given that they are being phased into the yellow light stages.").

7 **2. Other Project Changes, Including Changes To Mitigating
8 Project Elements, Required Analysis and Recirculation.**

9 The Specific Plan also classifies the northern runway reconfiguration project as a
10 "yellow-light" project. AR 130:064804. Like the GTC, the northern runway
11 reconfiguration was relied on in the EIR as a mitigating element. The Specific Plan's
12 classification of the northern runway reconfiguration as a "yellow-light" project creates a
13 process under which it is reasonably foreseeable that the northern runway complex
14 reconfiguration will never move ahead. This substantial change in the Project requires
15 analysis of impacts, and recirculation.

16 Respondents acknowledge that improvements to the north runway are expected to
17 yield environmental benefits by reducing the amount of time aircraft spend idling on the
18 ground due to airfield congestion. AR 55:034962 (First Addendum). The EIR assumes
19 these reductions, and fails to disclose the impacts of eliminating the northern runway
20 improvements.

21 Moreover, reconfiguration of the northern runway complex is important from an
22 environmental perspective because those improvements are needed to balance similar
23 improvements approved for the southern runway complex. Without the northern runway
24 improvements, only the southern runways could accommodate new large aircraft like the
25 Airbus A380. AR 124:062274 (lines 7-8) ("North and south airfield usage will be
26 balanced by lengthening the north runways."). If only the southern complex
27 improvements proceed - a reasonably foreseeable outcome under the Master Plan as
28 approved - the increased airfield efficiency in the southern complex, relative to the

1 northern complex, will cause a shift in aircraft operations and associated noise and other
2 impacts to the south, towards El Segundo. AR 55:034941 ("Without [north airfield
3 improvements], additional aircraft noise is focused on the south airfield"); AR
4 119:060438 (prior to completion of the reconfiguration of the northern runway complex,
5 communities south of the airport would be potentially impacted by NLA use of the
6 southern runway complex). Thus, removal of the northern runway reconfiguration
7 element from the Master Plan will result in additional significant environmental impacts
8 over and above those acknowledged in the EIR.

9 The Specific Plan's list of "yellow-light" projects also calls into question whether
10 LAWA will proceed with certain elements of the Master Plan that it relied on for its claim
11 that the number of gates at LAX will be reduced from 163 to 153 (e.g., demolition of
12 Terminals 1, 2 & 3). As previously discussed, if gate reductions are not undertaken early
13 in the Master Plan build-out process, they will come too late to serve as a limit on LAX's
14 capacity, when the airport is already serving more than 78.9 MAP. See Argument Section
15 II(A)(2), above. The Specific Plan exacerbates the problem, already pointed out by El
16 Segundo, that the Master Plan lacks any mechanism that would ensure the timely removal
17 of gates.

18 Respondents have acknowledged that CEQA requires further environmental
19 review of the implications of the removal of Project elements such as the GTC and
20 northern runway complex modifications from the Master Plan. AR 134:066447 (lines 3-
21 9) (City attorney estimate that re-analysis of Master Plan if "yellow-light" projects
22 formally removed would take thirty (30) months); AR 133:064830 (letter from Cindy
23 Miscikowski, City of Los Angeles Councilwoman, to Rockard Delgadillo, City of Los
24 Angeles City Attorney, stating: "I think we have all come to the conclusion that removal
25 of a Master Plan component like the . . . GTC in Manchester Square would require
26 substantial changes to the EIR."). Respondents seek to excuse this serious CEQA
27 problem by arguing that later project-level environmental review would be conducted for
28 "yellow-light" projects before they are undertaken. AR 134:066443. This tactic

1 improperly defers analysis. More importantly, it fails to address the strong possibility that
2 "yellow-light" projects will never be bought forward for approval, so that no project-level
3 environmental review will materialize. Stanislaus Natural Heritage Project, 48
4 Cal.App.4th at 199 ("[T]iering' is not a device for deferring the identification of
5 significant environmental impacts that the adoption of a specific plan can be expected to
6 cause."). What remains missing is the analysis and disclosure of the impacts of
7 Alternative D without the "yellow-light" project elements.

8 **B. Respondents' December 2004 Addenda Triggered CEQA's
9 Recirculation Requirement By Revealing Significant New Information
10 About Impacts and Feasible Mitigation Measures Not Adopted by
11 Respondents.**

12 El Segundo has identified deficiencies with the significant new analysis and
13 information presented in the other three Addenda, but was denied the opportunity to
14 provide comments before final approval of the Project. See CEQA Guidelines § 15088.
15 Again, recirculation is required. Id. § 15088.5(a).

16 **1. The Forth Addendum Identifies New Mitigation Measures Not
17 Included In the FEIR.**

18 The Forth Addendum focuses on a so-called Community Benefits Agreement
19 ("CBA") that was entered into by LAWA and certain community groups. See AR
20 141:069627 (Notice of Determination for CBA). According to the Fourth Addendum,
21 "The CBA provides for environmental mitigation measures related to air quality, noise,
22 and construction and operational traffic associated with the proposed LAX Master Plan."
23 AR 55:035801; see also AR 55:035803-08 (summarizing benefits of CBA); AR
24 55:035802 ("Implementation of the CBA could provide a greater level of mitigation for
25 significant air quality and noise impacts than that anticipated in the Final EIR.").

26 Although the Fourth Addendum acknowledges that the CBA identifies new
27 feasible mitigation measures different from those discussed in the EIR, Respondents
28 expressly declined to adopt the CBA mitigation measures as part of the Master Plan
29 approval. AR 55:035801 ("The CBA is not, however, a requirement for, or a component
30 of, the LAX Master Plan."). Instead, the Fourth Addendum states, "While not required,

1 LAWA may choose to integrate, from time to time, certain of the CBA measures into the
2 MMRP during the course of the LAX Master Plan implementation." AR 55:035801.

3 Respondents' action triggered CEQA's recirculation requirement because they
4 presented new feasible mitigation measures and then declined to formally adopt them as
5 part of the CEQA process. CEQA Guidelines § 15088.5(a)(3) (recirculation required
6 when new information presents "[a] feasible . . . mitigation measure considerably
7 different from others previously analyzed [that] would clearly lessen the significant
8 impacts of the project, but [which] the project's proponents decline to adopt"); see also
9 Laurel Heights II, 6 Cal.4th at 1141. Respondents' failure to adopt the mitigation
10 measures that they themselves present also stands in direct conflict with CEQA's mandate
11 to adopt any feasible mitigation measures that would significantly reduce a project's
12 environmental effects. Pub. Res. Code § 21002; see also Save our Peninsula Comm., 87
13 Cal.App.4th at 131 (though public agency has discretion in adopting mitigation measures,
14 "it must do so on the basis of information collected and presented in the EIR and
15 subjected to the test of public scrutiny").

16 **2. The Third Addendum Discloses Significant Traffic Impacts Not
17 Previously Analyzed.**

18 The Third Addendum acknowledges that the Project would have certain new
19 impacts that will affect El Segundo, not previously evaluated in the EIR. It repeatedly
20 claims that, because the development plan for Phase II of the Playa Vista project (a
21 residential development near LAX) has been reduced from the plan originally proposed,
22 the revised analysis reflects improved environmental background conditions. AR
23 55:035451-52 ("Once the reduced Playa Vista project traffic projections are taken into
24 account, the traffic impacts from the LAX Master Plan will actually be considerably
25 reduced from those previously projected."); AR 55:035453 ("[T]he LAX Master Plan EIR
26 traffic analysis tended to analyze traffic conditions that are worse than will actually occur
27 when Playa Vista Phase II is developed and its mitigation measures are implemented.")
28 However, the Third Addendum includes figures that stand in direct opposition to these

1 claims. For example, according to Table AD(3)2-4, the volume-to-capacity ratios at three
2 intersections – El Segundo/Sepulveda in the PM Peak, Imperial/Main in the AM Peak,
3 and Mariposa/Sepulveda in the AM Peak – actually *increase* after accounting for the
4 reduced level of development in the approved Phase II. Compare AR 55:035463-66
5 (Table AD(3)2-4) with AR 35:018082-84. Similarly, the Third Addendum identifies a
6 new deficient freeway segment and a new deficient ramp due to the Project for the first
7 time, and provides no new mitigation measures to address these impacts. AR 55:035458.

8 The Third Addendum's inclusion of information about additional traffic impacts
9 presents significant new information about increased environmental impacts and
10 increased severity of existing impacts from the Project. Recirculation of the EIR is,
11 therefore, required. CEQA Guidelines §§ 15088.5(a)(1), (2).

12 **3. The Second Addendum Presents Significant New Information.**

13 In reaching its conclusion that the Project would not have significant impacts on
14 the Riverside fairy shrimp critical habitat proposed for designation by the USFWS in its
15 April 27, 2004 proposed rule, the Second Addendum relies entirely on an outdated
16 Biological Opinion that was mooted when the USFWS released its updated proposal for
17 designated habitat. AR 55:035130, 035127 ("While the April 20, 2004 Biological
18 Opinion determined only 23 acres of the [Airfield Operations Area] were critical to the
19 remaining cysts [i.e., Riverside fairy shrimp eggs], one week later, on April 27, 2004, the
20 USFWS issued a proposed designation of critical habitat that included approximately 108
21 acres proposed for critical habitat for Riverside fairy shrimp."). In addition, the analysis
22 does not even fully consider the full 23 acres identified in the outdated Biological
23 Opinion, but instead focuses on only 1.3 acres of this habitat. See AR 55:035127-28.

24 The information presented in the Second Addendum about the Project's effects on
25 proposed designated habitat for the Riverside fairy shrimp represents significant new
26 information about additional environmental impacts and increased severity of existing
27 impacts from the Project, thereby triggering a requirement to recirculate. CEQA
28 Guidelines §§ 15088.5(a)(1), (2).

1 impacts from the Project, thereby triggering a requirement to recirculate. CEQA
2 Guidelines §§ 15088.5(a)(1), (2).

3 In sum, the information contained in each one of the December 2004 Addenda
4 reveals significant new environmental impacts about which the public has not had an
5 opportunity to comment; collectively, they clearly represent "significant new information"
6 that requires recirculation of the EIR.

7 **CONCLUSION**

8 For the reasons set forth above, the EIR is inconsistent with the mandates of
9 CEQA. The flaws in the EIR are systematic and structural; they pervade the analysis and
10 presentation of the facts, result in the omission and serious understatement of significant
11 environmental impacts, and render it inadequate as a public disclosure document. El
12 Segundo respectfully requests that this Court set aside Respondents' EIR certification and
13 Project approval, on the grounds that they violated CEQA.

14
15 May 10, 2005

SHUTE, MIHALY & WEINBERGER LLP

16 By: 
17 OSA L. ARMI
18 Attorneys for Petitioner
19 CITY OF EL SEGUNDO
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MEMORANDUM

TO: Robert Perlmutter
 FROM: Adib Kanafani
 RE: Additional Comments Regarding the LAX SAIP-DEIR
 DATE: September 13, 2005

There is essentially no evidence anywhere that the proposed SAIP, which would add a centerline taxiway between runways 25R and 25L, is an effective means of dealing with the runway incursions caused by aircraft exiting runway 25L and crossing runway 25R. The SAIP-DEIR does not provide any such evidence.

1. First of all, from data available on LAX runway incidents in 2000 and 2003, it is clear that all such incidents are caused by human errors committed by either the pilots or the air traffic controllers. There is no evidence that there is an engineering problem with the design of the existing airfield, which meets all applicable standards and criteria. Adding a centerline taxiway does not guarantee that human errors will be reduced nor is it intended as a means of correcting the human error problem. Indeed, aircraft using the centerline taxiway after landing on runway 25L will still have to cross runway 25R to reach the terminals, and pilots and controllers can be expected to be equally prone to committing human errors with the centerline taxiway as without it.
2. Although it reasonable to expect that the fact that aircraft exiting runway 25L and crossing runway 25R can be stored or queued on the centerline taxiway before being cleared to crossing 25R may reduce the probability of inadvertent incursion, there is no evaluation anywhere in the DEIR of this potential. In fact, if the evidence quoted from the studies conducted by NASA is any indication, there is reason to expect that the probability of runway incursions might in fact increase.
3. Available data on runway incursions at LAX in 2000 and 2003 show that of the incursions that occurred in those years (8 in 2000 and 10 in 2003) only half involved aircraft attempting to cross runway 25R after exiting from runway 25L. All were caused by blunders of the type that can occur with any airfield design. The other half involved various types of incursions on the other runways at LAX. Nothing in the SAIP addresses these other incursions, which are not any less severe.
4. By overlooking the human error basis of the runway 25R crossing incursions, and indeed all the other types of equally frequent runway incursions at LAX, the SAIP

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is not addressing the problem it purports to solve. There is no indication that any attempts were considered to deal with the human error and the ground traffic control issues that underlie runway incursions, and consequently no alternative solutions that would address these issues directly appear to have been considered.

5. Probably the most effective alternatives to consider are those that deal with airfield traffic control. These entail the introduction of various technologies of audible and visual taxiway traffic control signals. Working with the FAA and the air traffic controller community LAX should explore and evaluate such alternatives prior to committing the vast expense of the current SAIP. Some similar programs at other airports are mentioned in Dwight Abbott's paper.

Alternative taxiway configurations should also be considered, including the re-design of hi-speed exits in order to reduce the speed of aircraft exiting runway 25L. The end-round taxiway alternatives should also be considered. Some of these are also mentioned in Abbott's paper. However, from the point of view of noise impact on the City of El Segundo, these may not be desirable since they will increase the use of taxiway A and may increase the noise impact.

6. In the event that runway 25L was moved to the South to accommodate the centerline taxiway, there should be no reason left to use taxiway A by aircraft exiting runway 25L, with the exception of those headed toward the facilities in the southern part of the airfield. End-round taxiway operations using this taxiway to complement the circulation pattern for aircraft headed to the western part of the terminal complex should not be permitted. Nor should this taxiway be used to bring A380's to takeoff on runway 25L as appears to be envisaged in the SAIP. Since operations of the A380 will require modifications of standards (MOS), such modifications should include the creation of pathways that avoid the southern edge of the airport, including allowing the use of the centerline taxiway, should that be built.

In summary, there is no evidence in the DEIR that the SAIP is at all an effective means of dealing the problem it is intended to resolve. Nor is there evidence that alternatives to this very expensive program have been adequately considered.

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LAX South Airfield Improvement Program

Review of the Draft EIR for the South Airfield Improvement
Project

PREPARED FOR:

Shute, Mihaly and Weinberger, LLP

Submitted by:

Gary Mikel Allen
Aviation Systems, Inc.
Torrance, California

September 2005

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Introduction

At the request of Shute, Mihaly & Weinberger, Aviation Systems, Inc. ("ASI") has reviewed Chapter 4.5, *Noise*, and Appendix B of the South Airfield Improvement Project Draft EIR ("Draft SAIP EIR") with respect to noise issues of concern to the City of El Segundo and adjacent communities. The basic focus of this EIR is on the construction of a new 25L Runway displaced 55 feet south of the existing 25L, with a center taxiway between the new 25L and Runway 25R. Appendix B discusses, but does not fully analyze, an alternative to that action, i.e., the construction of an end-around taxiway from the existing 25L to the central terminal area. Two variations of that alternative are considered, an at-grade design and one that uses tugs to move aircraft from a staging area to the central terminal area.

Comments

The Draft SAIP EIR Uses an Archaic Impact Threshold

The Draft SAIP EIR sets a "bright line" noise threshold at 65 dB CNEL, based exclusively on outdated FAA and state guidelines for noise impacts. It consequently disregards the noise levels in areas outside the 65 dB CNEL. However, as Schomer points out in "A White Paper: Assessment of Noise Annoyance", April 22, 2001, the FAA's 65 dB CNEL threshold policies on noise compatibility were developed in the 1970s, as were similar policies used by the Department of Defense ("DOD"). By contrast, nearly all other agencies and boards, standards setting bodies, and international organizations have established their noise policies in the last decade. These more recent standards have uniformly determined that the 65 db CNEL threshold is inadequate. A summary of these more recent standards is set forth in the Chart on the next page.

The World Health Organization ("WHO"), for example, published *Guidelines for Community Noise* in April 1999, based on over 25 years more worldwide research into noise effects than was available when the earlier FAA/DOD policies were developed. WHO, says Schomer, characterizes 55 dB CNEL¹ as engendering serious annoyance and creating an unhealthy environment and 50 dB CNEL as engendering moderate annoyance. Much of the underlying basis for 65 dB CNEL (or DNL) comes from annoyance studies in the 1970s culminating with the "Schultz Curve." This curve indicates that 65 dB CNEL/DNL corresponds to approximately 15% of the population being highly annoyed ("HA") and 55 dB CNEL/DNL (the EPA'S serious annoyance level) corresponds to approximately 5% HA people. In the 1990s, however, Miedema & Vos, in their "Exposure-response relationships for transportation noise" published in the *Journal of the Acoustical Society of America*, indicated that the degree of annoyance varies depending on the source of the noise. They found that at 65 dB CNEL/DNL approximately 28% of the population is annoyed by aircraft noise, 16% by road traffic and 9% by railroad noise. At 55 dB CNEL/DNL, approximately 10% would be annoyed

¹ WHO actually references DNL which is mathematically similar to CNEL but without the evening weighting of 4.77 dB to each noise event.

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by aircraft noise, and even at 50 dB CNEL/DNL approximately 5% would be annoyed by aircraft noise.

In other words, 65 dB CNEL, in the light of the research over the last 25-30 years, is no longer considered by most parties to be the appropriate standard for determining when aircraft noise becomes excessive and a significant adverse impact on environmental quality. LAWA's uncritical reliance upon the fact that it has not yet been supplanted as the state standard and the FAA guideline improperly ignores this research. People outside the 65 dB CNEL contour regularly complain about excessive aircraft noise affecting their quality of life. LAWA's refusal to use any of the more recent standards effectively masks these very real impacts.

Moreover, adding a 55 dB CNEL contour with associated analysis on area and population would be a simple remedy for the Draft SAIP EIR, bringing it in line with current thinking and providing more comprehensive disclosure of the impacts related to this action.

Chart 1: U.S. and International Agencies and Organizations Using Standards Below 65 dB CNEL.

Organization	Residential Noise Impact Standard
World Health Organization	50db DNL: Maximum to prevent serious annoyance 55db DNL: Serious Annoyance and unhealthy environment
Commonwealth of Massachusetts	10dba above ambient
EPA	45db DNL: Quiet suburban or rural community 55db DNL: Level required to protect health and welfare
Federal Energy Regulatory Commission	55db DNL: Maximum limit for noise in residential environment
Federal Transit Administration	50db DNL: Impact for an existing 40db DNL environment
Federal Railroad Administration	50db DNL: Impact for an existing 40db DNL environment
Surface Transportation Board	50db DNL: Impact for an existing 40db DNL environment
National Research Council	40db DNL: Full environment review required for existing 45db DNL environment

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	55db DNL: Serious noise impact
ANSI	55db DNL: Significant impact
EC Country Regulations	45db DNL: No new residential construction permitted in some countries
World Bank	55db DNL: Noise limit for any new development
OECD	50db DNL: Significant impact in rural environment 55db DNL: Significant impact urban environment

End-around Taxiway "Alternatives"

The two alternative end-around taxiway designs (i.e., at-grade and tugs) are discussed in Appendix B to the Draft SAIP EIR. Section 10 of Appendix B purports to evaluate the noise effects of these two design alternatives in contrast to noise associated with the center taxiway featured in the SAIP and provides some assumptions with respect to modeling the noise of these three scenarios. But, despite its statement of intent to do so, the section really does not present results for the at-grade alternative and only shows a very rudimentary figure (Figure 9, Page 21) comparing 100 dB SEL contours for the end-around tugs alternative and the center taxiway design of the SAIP. Whether this figure is accurately labeled is unclear because the modeling assumptions state that "tug operations do not produce any measurable noise..." It may be that Figure 9 is really comparing the at-grade alternative noise, not the tugs alternative, with the center taxiway. Regardless, we do not have a complete picture; nor is there any apparent consideration of feasible measures to mitigate the taxi noise of the end-around design.

There is no presentation of data showing the area and population that might be affected by the end-around designs or the center taxiway either. There is only a statement in Section 1, unsupported by any analytical data, that the "end-around taxiway designs would introduce taxi noise closer to El Segundo as more aircraft would be directed to proposed taxiways closer to noise sensitive areas..."

New Large Aircraft (NLA)

The Draft SAIP EIR offers no more information than did its predecessor program environmental review documents on the introduction of NLAs and their effect on the noise environment following construction of the new Runway 25L. The problem with this is that the LAX Master Plan, by virtue of its design for this new runway, designates 25L for NLA usage, since it will be 200 feet wide and capable of handling these NLAs. Of particular concern is the fact that the new 25L runway will be the only runway capable of handling the Airbus A-380 aircraft which is expected in service in 2006. While it is clear that all A-380s using the airport will utilize this runway, the SAIP DEIR provides absolutely no empirical information about the noise impacts of these aircraft.

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The underlying program EIR/EIS on the LAX Master Plan similarly provides no such data. The program EIR/EIS does claim that the fleet mix, and consequently the noise modeling, includes a shift to vaguely-named "wide body aircraft." It then asserts that many of the future aircraft will be quieter than those they replace. Table F4, 1-9 (page 4-58) in the FEIS/FEIR shows an approximately 100% increase in "Heavy Jets" by 2015 in every alternative. This presumably was incorporated into the INM programming for the post-construction period, but despite the implied suggestion that the term "heavy jets" includes NLAs, the reality is that none of these so-called "heavy jets" used in the noise modeling are A-380s.

The absence of any empirical evidence regarding the A-380's noise impacts is particularly troubling because, due to extensive publicity, it is well known by LAWA and the general public that a significant component of this increase will be Airbus A-380 aircraft. Nor can this omission be rectified by the vague assurances from Airbus Industries that the A-380 will meet stringent noise goals like those of London Heathrow. The aircraft has not yet been noise certified by the FAA, and in light of Airbus's obvious self-interest in playing down its product's impacts, its assurance may not be relied upon. LAWA's assumption that the 747-400—the so-called design aircraft for the LAX Master Plan—is an adequate surrogate for the NLAs is similarly unsupported. This assumption ignores the fact that the A-380 is a significantly bigger aircraft than the 747-400.

Apparently, LAWA expects residents who will be living in proximity to the approaches and departures of these huge (up to 800 passenger) aircraft in 2006 to "take it on faith" that the A-380 will be quieter than the significantly smaller aircraft that they hear today. From the information set forth in the Draft SAIP EIR, however, it is simply not possible for decision makers or the public to determine whether these NLAs operating on the new Runway 25L (which will be 55 feet closer to El Segundo) will cause greater noise impacts than the smaller aircraft they replace.

Baseline

The Draft SAIP EIR uses 2003 as the baseline year to evaluate the proposed construction of the new 25L, but relies exclusively on the Master Plan program EIR/EIS's use of a 1996 baseline to measure the post-construction environmental effects of flight operations on the new 25L.

A review of the fleet mix and operations data for 1996 and 2003 indicates that the program LAX Master Plan EIR/EIS comparison of 2015 versus 1996 yields a more favorable outcome than would a comparison of 2015 versus 2003. To begin with, the total operations for 2015 and 1996 are virtually the same, i.e., 774,000 forecast operations for 2015 (based on Table S-7, S-C1, Supplemental Aircraft Noise Technical Report to the LAX program EIR/EIS) and 757,000 actual operations in 1996 (from Table S-4 of the Technical Report). In contrast, by 2003 operations had actually declined to 623,000 (from Table M-2, Supplemental Noise Analysis Information, Appendix M of the Draft SAIP EIR). Of the total operations for these years, 234,700 are forecast to be "heavy jets" in 2015, whereas in 1996 there were 128,845 actual operations by "heavy jets." By 2003, this figure had dropped off to 104,000.

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Focusing in on the operations on the existing and future Runway 25L, the following tabulations confirm that the program LAX Master Plan EIR/EIS comparison of 2015 to 1996 (which the SAIP EIR exclusively relies upon) paints a more favorable comparison than would a comparison of 2015 to 2003.

25L Arrivals

	1996	2003	2015
Day	124,465	104,724	127,804
Evening	32,120	26,814	34,120
Nighttime	16,790	14,202	7,242
Total	173,375	146,094	169,529

25L Departures

	1996	2003	2015
Day	17,885	14,883	24,641
Evening	5,475	40,046	5,151
Nighttime	4,380	6,942	1,899
Total	27,740	25,871	31,846

25L Equivalent Arrivals

	1996	2003	2015
Day	124,465	104,724	127,804
Evening	96,360	80,442	103,518
Nighttime	167,900	142,020	72,420
Total	388,725	327,186	303,742

Even more telling, though, is to convert these operations data into equivalent operations, i.e., to apply the weighting factors that are used in the CNEL methodology. Those weighting factors include a multiple of ten for nighttime operations and a multiple of three for evening operations².

25L Equivalent Arrivals

	1996	2003	2015
Day	124,465	104,724	127,804
Evening	96,360	80,442	103,518
Nighttime	167,900	142,020	72,420
Total	388,725	327,186	303,742

² These multiples are the factors applied to numbers of operations. When dealing with noise levels the weighting factors are 10 dB for nighttime noise events and 4.77 dB for evening events.

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25L Equivalent Departures

	1996	2003	2015
Day	17,885	14,883	24,641
Evening	16,425	12,138	15,453
Nighttime	43,800	69,420	18,990
Total	78,110	96,441	59,084

25L Equivalent Total Operations

	1996	2003	2015
Day	142,350	119,607	152,445
Evening	112,785	92,580	118,971
Nighttime	211,700	211,440	91,410
Total	466,835	423,627	362,826

In sum, by relying upon the program LAX Master Plan EIR/EIS's 1996 baseline, the Draft SAIP EIR overstates the noise reduction benefit associated with post-construction operations of the new Runway 25L by a significant number (over 43,000) of component equivalent operations.

Speech Interference

Aircraft noise disrupts routine daily activities such as radio or television listening, telephone use, and family conversation. Like its predecessors, however, the Draft SAIP EIR provides only minimal, obfuscated information on speech interference effects, despite the fact that aircraft noise causes significant annoyance to residents in El Segundo and other communities near LAX.

LAWA claims that the CNEL methodology accounts for impacts on daily activities, including speech interference. This statement is true in the limited sense that sound exposure level ("SEL"), a single-event measurement, is included as a component element of CNEL's mathematics. However, this limited accounting for SEL provides no meaningful information about how these noise impacts will actually be experienced by area residents because those measurements are obscured within the time-averaging nature of CNEL.

LAWA also asserts that the Time Above ("TA") metric (minutes of exposure above a specified SEL) provides sufficient information to assess speech interference. In asserting these claims, LAWA ignores the request of El Segundo and other communities around LAX for a different and more understandable way of relating information on speech interference and the other annoyance factors. Supposedly, according to LAWA, the Draft SAIP EIR TA grid-based tabulations for incremental values at 65 dBA to 95 dBA should suffice. However, these tabulations of the time in minutes above, for example, 65 dBA within a certain grid cell do not really provide a lay reader with a basis for understanding what the speech interference frequency might be. It might tell you that within a certain grid cell, 65 dBA will be exceeded 5 or 10 minutes per day. Nevertheless, this technique does not address the most pressing questions for most residents: how many times per day will my backyard conversations, television viewing etc. be interrupted by overriding noise.

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According to both the U.S. Environmental Protection Agency in its seminal "Levels Document" (Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety EPA 1974) and the Federal Interagency Committee on Noise (FICON) document Federal Agency Review of Selected Airport Noise Analysis Issues FICON Federal Interagency Committee on Noise Aug 1992, "wherever intrusive noise exceeds approximately 60 dB indoors, there will be interference with speech communication." These agencies and their documents are trusted sources with respect to environmental noise and impact on human activity.

By adding 14 dB of noise attenuation by the typical residential structure in the LAX environs, as reported by the LAWA Noise Management Agency, it can be concluded that outdoor noise exceeding 74 dB will also cause intrusive noise interference indoors. To avoid obfuscation and provide information on this aspect of annoyance that is actually understandable and meaningful to residents of El Segundo and other communities around LAX, the Draft SAIP EIR simply needs to provide a 74 dB SEL Number-of-events Above ("NA") contour like that which will be discussed later relative to the awakenings aspect of annoyance. Similarly, since it is reasonable to conclude from the EPA and FICON documents that 60 dB events will also affect outdoor communication, a 60 dB SEL NA contour should be provided to enable the communities around LAX to infer what the effects would be on outdoor speech communication. With this straightforward information, residents would then be able to meaningfully assess how many times per day they might be subject to speech interference. By contrast, the information provided in the Draft SAIP EIR does not permit residents to make this assessment.

Sleep Disturbance

The Draft SAIP EIR uses the same threshold of significance for sleep disturbance impacts as its predecessor program EIS/EIR on the LAX Master Plan, namely the SEL at which 10% of the population would be awakened at least once every 10 days, which is claimed to be 94 dB SEL outdoor and 81 dB SEL indoor (with windows open). This particular threshold doesn't appear in any of the noise literature over the last dozen years, from Ollerhead et al in 1992 to Passchier-Vermeer et al in 2002. The methodology appears to be derived from a 1997 study by FICAN wherein it was reported that the expected percent of awakenings is equal to $(0.0087)(SEL - 30)^{1.79}$. Assuming 10% awakenings as a goal, this equation produces an indoor SEL of 81 dB (which translates to 94 dB outdoor³). The mystery is why 10% was chosen.

In its Guidelines for Community Noise of April, 1999, the World Health Organization reports on a substantial body of research, particularly that of Vallet & Vernet (1991) in their "Night aircraft noise index and sleep research results" published in *Internoise 91*. The report concludes that the LAMax to prevent nighttime awakenings should not exceed 45 dBA, and it should be even less for sensitive people. In fact, WHO's guideline value for sleep disturbance in indoor bedrooms is 45 dB LAMax.

³ Actually, based on the average outside to inside attenuation reported in the Aerospace Information Report 1081 by the Society of Automotive Engineers for residential structures in the LAX environs of 14.3 dB, the outdoor SEL should be 94.3 dB rounded up to 95 dB. The Draft SAIP EIR in Appendix M, § M.1.4.3 says the threshold was lowered to 94 dB to account for noise sensitive people. Of course that level would capture the noise sensitive people but would be substantially higher than their threshold.

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WHO further reports that studies by Passchier-Vermeer (1993); Finegold et al (1994); and Pearsons et al (1995) show an increase in awakenings at indoor SEL values of 55-60 dBA. Relative to aircraft noise events, an LAMax of 45 dBA would be equivalent to SELs of 55-60 dBA. Based on the outside to inside attenuation reported in the Draft SAIP EIR, the outdoor SELs would then be 69-74 dBA. Applying these levels to the FICAN equation results in awakenings ranging from 2.8% to 3.8% of the population. Accordingly, based on this widely-accepted body of research, the appropriate threshold of significance should be set at approximately 3% awakenings, rather than the 10% arbitrarily selected by LAWA.

In the Oakland Airport EIR, which was responding to the *Berkeley Jets* Court's order to present information about nighttime SELs and sleep disturbance, the airport used a number of scenarios with awakening levels ranging from 1.9% to 7.9%, depending on sound attenuation variables such as whether windows were open or closed. This process led to more reasonable threshold levels of 80, 85 and 90 dB SEL outdoors than did LAWA's analysis here.

The SEL values used in the Oakland EIR, though higher than WHO Guidelines, do have support in the scientific literature. Building on the work by Vallet & Vernet, Miedema published "Elements for a position paper on night-time transportation noise and sleep disturbance" in a 2003 TNO Inro Report, wherein he established an equation for relating nighttime noise, SELs, and the number of events,

- $L_{night} = SEL + 10 \log N - 10 \log (t)$; where L_{night} is the night time equivalent noise level, N is the number of events, and T is the duration of the night in seconds.

Using 45 dB for L_{night} for consistency with Vallet & Vernet and with WHO, Miedema's relationship leads to the conclusion that SELs of 90, 85 and 80 dB will result in exceeding the L_{night} , three times and ten times per night, respectively.

These SELs were selected by Oakland to provide additional information pursuant to court order, not to create a threshold of significance. Under the Oakland circumstances, that approach was pragmatic. However, since LAWA's intent here is to set a threshold of significance, it would be more appropriate to adhere more closely to the WHO Guidelines.

It is reasonable to conclude that the threshold of significance for nighttime awakenings or sleep disturbance at LAX should be closer to the WHO Guidelines outdoor equivalent value of 74 dB SEL rather than 94 dB SEL used in LAX environmental noise analyses. A sensible compromise level in line with Miedema's relationship and with the Oakland work might be 85 dB SEL. The corresponding indoor SEL would be 71 dB and using the FICAN curve, the awakenings level would be 6.7%. This also would be much closer to the threshold for capturing the response by noise sensitive people, which was SAIP DEIR's stated goal in selecting 94 dB SEL.

Regardless of threshold value, the way in which the information is depicted in the Draft SAIP EIR fails to provide anything remotely approaching full disclosure of nighttime awakening potential. The contour line presented in the Draft SAIP EIR represents the connection of all of the grid cells wherein there is at least 0.1 events per

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night of 94 dB or higher, which the document says correlates to the threshold of significance, i.e., once every ten nights. So, the contour line is actually a number of events line. But the area enclosed by the contour is simply an area that is exposed to events of 94 dB or higher. It is impossible to determine the number of events for any given location. That figure depends on location within the contour, but is obviously more than 0.1. Therein lies the problem with this form of information display: a resident at any given point within the enclosed area of the contour does not know how many times per night she will be impacted by a noise event of 94 dB or higher; she only knows that it will happen. Section 1.5 of the Draft SAIP EIR states that there will be an increased effect on noise sensitive and residential land uses, that more dwelling units will be exposed to SELs of at least 94 dB. But to be able to make an informed judgment, a resident needs to have some understanding of not only the magnitude but also the frequency.

Wyle Labs presents a much more informative approach in a 2003 study using a Number-of-events Above (NA) metric. The NA metric establishes and depicts zones in which a specified number of noise events per night exceed a specified SEL. The Australian Department of Transportation ("DOT") has been using this metric extensively. In fact, Wyle Labs prepared NA 70 dBA⁴ contours for the Australian DOT for the Sydney and Brisbane Airports. These contours delineated zones in which a selected number of events above 70 dBA occurred, e.g., 10-20, 20-50, 50-100, 100-200 and more than 200. The Oakland Airport EIR also used this approach, supplying contour sets for their selected thresholds, i.e., 80, 85 and 90 dB SEL. Each set is comprised of concentric contours with each component contour of the set representing a number-of-events exceeding the threshold level. For example, the Oakland EIR has an NA 80 dB SEL contour set with constituent contours tagged with "1-5 events", "5-10 events", "10-20 events" and so on. Thus, the Oakland document (like the Sydney and Brisbane documents) not only uses more reasonable threshold levels, it also gives more useful information on the impact frequency.

To provide meaningful assessment of sleep disturbance impacts on the residents of El Segundo and nearby communities, LAWA should prepare a noise analysis using similar NA metrics. In this regard, we note that Section M.1.1.2 of Appendix M of the Draft SAIP EIR does describe the NA metric. It also states that an NA assessment of nighttime sleep disturbance was presented in SC-1 Supplemental Aircraft Noise Technical Report of the program LAX Master Plan EIR/EIS. That document, however, does not contain the referenced assessment.

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⁴ It should be noted that the Australian DOT utilized a threshold consistent with the WHO Guidelines.

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e-mail: garva@aviationsystems.com**PRESIDENT, DIRECTOR OF REGULATORY AFFAIRS****GENERAL QUALIFICATIONS**

Dr. Allen has over 28 years of technical and legal experience in aviation, engineering, environmental planning/analysis and document review. A substantial part of his career has been devoted to airport environmental studies, airport compatibility planning and analysis such as noise/land use, airspace modeling, aircraft accident potential, land use risk assessment and electromagnetic interference (EMI) studies. In recent years, Dr. Allen has also been involved in evaluating airspace issues and regulatory compliance under FAR Part 77 for telecommunications projects around the United States.

PROFESSIONAL EXPERIENCE

The following are specific areas of Dr. Allen's experience, including a few representative projects in each area:

Noise Studies

Conducted computerized noise studies using the FAA's Integrated Noise Model (INM) or the DOD's NoiseMap Model at hundreds of airports across the United States, including Los Angeles International, Houston Intercontinental, John Wayne (Orange County), San Diego, Jacksonville, Norton Air Force Base (Civilian Re-use), NAS Agana Guam (Civilian Re-use), Kalamazoo, Santa Maria, Salem, Ontario, Tacoma, Fort Worth, Gainesville, Salt Lake City, Milwaukee, Birmingham, Port Angeles, Rialto, Banning, Shelton, Sacramento, Oklahoma City and Burbank-Glendale-Pasadena Airport.

Designed and conducted field noise monitoring surveys to validate the accuracy of computer modeling or to confirm noise complaints at Houston, Salt Lake City, Palomar, and Aspen.

Conducted noise assessments, including substantial field noise monitoring, for proposed new heliports at Victorville, San Bernardino, Sarasota, Baldwin Park, Brea, Huntington Beach, and Anaheim, California, and for new helicopter service at John Wayne, Los Angeles International, Ontario, and Burbank-Glendale-Pasadena Airports.

Developed the noise assessment portion of the "Planning Guidelines for Heliport Facilities in the San Diego Region," which was used by the local association of governments (SANDAG) to assess heliport proposals in the region.

Directed or conducted airport noise abatement plans at airports across the nation, including Salt Lake City, Reno, Houston, Oklahoma City, San Diego, Milwaukee, and Hartford.

Developed noise contours for the DOD using NoiseMap as part of Air Installation Compatible Use Zone (AICUZ) studies at MCAS Kaneohe Bay, NAS Barbers Point, NAS Agana, NAS Alameda, NALF San Clemente Island, OLF Imperial Beach, USCGS Elizabeth City.

Analyzed noise effects from institution of new noise abatement takeoff procedures at John Wayne Airport on behalf of Newport Beach.

Directed acquisition of aircraft operations data for noise studies at Marine Corps Air Station El Toro and Naval Air Station Pt. Mugu.

Reconstructed noise environment on west-end of Ontario International in the 1970-1976 era for purposes of litigating a malpractice complaint.

SAIP-AL00005

Environmental Review and Analysis

Reviewed the Supplement to the Draft EIS/EIR on Airport Master Plan alternatives for Los Angeles International Airport on behalf of the cities of El Segundo and Inglewood. This Supplement principally addressed a new alternative proposed by Los Angeles Mayor James Hahn and augmented technical analyses on other alternatives requested by commenters on the Draft. This Supplement is subject to, and therefore reviewed for compliance with, both Federal (NEPA) and California (CEQA) requirements.

Reviewed the Draft EIS on the Airport Master Plan for Cleveland Hopkins International Airport on behalf of the City of Olmsted Falls which was concerned about the impact of the airport's expansion plans on their city.

Reviewed the environmental analyses and documentation developed by proponents of an international cargo use of Brown Field in San Diego on behalf of the City of Chula Vista. Major flaws were discovered in the document's disclosure of airspace and environmental implications of the proposal which ultimately resulted in the City Council of San Diego rejecting the proposal.

Reviewed and commented on the environmental documentation on noise-mitigating aircraft departure procedures at SEATAC Airport.

Directed the preparation of EISs pursuant to NEPA requirements for Airport Master Plans at Salt Lake City International Airport, Houston Intercontinental Airport, Los Angeles International Airport, Sacramento Metro, and Sacramento Executive Airports. In addition to NEPA requirements, the California Airports also are required to conform to the requirements of CEQA.

Prepared EIRs under CEQA for the introduction of new airline service at San Diego International and the introduction of MD-80 service at John Wayne Airport.

Prepared the EIS/EIR for "over the ocean" approach procedures at Los Angeles International Airport.

Prepared EIRs and impact assessments for wind energy conversion projects in California and Hawaii.

Land Use Compatibility Studies

Analyzed the regulatory and legal issues involved with a major development project adjacent to Camarillo Airport. The principal issues involved FAR Part 77 compliance and the implications of an aviation easement still on the books from the days when Camarillo Airport was a U.S. Air Force Base.

Analyzed compliance of development projects adjacent to Chino Airport, Hemet-Ryan Airport and Bermuda Dunes Airport with the Airport Land Use Compatibility Plans prepared under California Law and also with a recent publication on the current thinking on Airport Land Use Compatibility Planning by the California Department of Transportation.

Directed and conducted land-use compatibility plans at airports across the nation, including Salt Lake City, Reno, Houston, Oklahoma City, San Diego, Milwaukee, and Hartford. These plans were developed pursuant to the FAA's pilot program called Airport Noise and Land Use Compatibility (or ANCLUC) and its successor FAR Part 150.

Conducted EIRs and land-use assessments pursuant to California law for heliport projects at Brea, Huntington Beach, and Anaheim, and for helicopter airline service at John Wayne, Los Angeles International, Ontario, and Burbank-Glendale-Pasadena Airports.

Developed land-use compatibility guidelines for the general plans of 2 counties and 16 cities in California.

Regulatory Compliance

Reviewed approximately 5,000 telecommunications, broadcast and other development projects over the last 10 years for compliance with FAR Part 77, FAA Order 8360.2B, FAA Order 7400.2E and FAA Advisory Circular 70/7460-1K. Coordinated with both project proponents and the various FAA technical branches involved in the process.

Air Quality Studies

SAIP-AL00005

Managed air quality studies for airport EIRs at Los Angeles International, John Wayne, Ontario, Santa Maria, Oxnard, Camarillo, Houston Intercontinental, Rialto, and various other airports. Under contract with the FAA, directed microscale analysis of second level roadway at Los Angeles International Airport.

Managed over 100 air quality assessments for general plan amendments, highway projects, airport expansion projects and private residential and commercial development projects throughout California and Nevada.

Directed air quality assessments for supplemental EIRs for the City of Los Angeles General Plan/Zoning Consistency Program. Directed air quality studies for hotel expansion and the residential projects in the Truckee Meadows airshed.

Conducted analysis of obstruction of sea breeze windflow by proposed residential project in Dana Point. Analyzed air quality implications of Irvine General Plan Update. Analyzed air quality implications of alternative land-use concepts in Aliso Water Management Agency territory.

OTHER PROFESSIONAL EXPERIENCE

Successfully litigated (as second chair) a contractual dispute between a Mexican Air Line and an aircraft lessor.

Was a pioneer in the development of airport noise/land-use compatibility plans and has been heavily involved over the years in the development of noise elements for community general plans.

Was instrumental in the development of wind turbine noise assessment and authored several papers and over 200 project reports on wind farm noise impacts.

Authored book on Environmental Evaluation of Airport Site Selection Alternatives.

Conducted FAA-approved computer modeling studies on the electromagnetic interference potential of FM stations on airport navigational aids at dozens of airports across the nation.

Conducted aircraft accident potential studies on development proposals adjacent to John Wayne, Camarillo, Riverside, Bermuda Dunes and French Valley Airport.

Conducted airspace modeling of civilian re-use of Norton Air Force using SIMMOD

Served as expert witness in airport noise/land use compatibility litigation.

EDUCATION

J.D. Law, Western State University College of Law.
PhD. Environmental Science (Aviation emphasis), California Western University.
M.S. Environmental Studies (Aviation emphasis), California State University, Dominguez Hills.
M.S. Environmental Systems Management, West Coast University.
B.S. Engineering, Northrop University.
Certificate in Urban Planning, University of California, Irvine.
Certificate in Environmental Impact Reporting and Evaluation, University of California, Irvine.
Coursework in Airport Planning, University of California, Berkeley.

PROFESSIONAL AFFILIATIONS

California State Bar (Number 159878)
American Bar Association
Lawyer - Pilots Bar Association
National Association of Environmental Professionals
Member, Federal Bar Association
Member of ABA Committee on Environmental Controls
Member of ABA Subcommittee on Air Quality

PUBLICATIONS

SAIP-AL00005

"Protecting the Navigable Airspace: FAR Part 77," Aviation and Space Law Symposium Proceedings (April 1998).

"Windfarm Noise Issues: Windpower '85 Proceedings (July 1985)

"Environmental Noise Issues," Renewable Energies symposium Proceedings (June 1985)

"Wind Energy Development Noise Considerations," American Wind Energy Association Conference Proceedings (July 1984)

"Environmental Evaluation of Airport Site Selection Alternatives," Cal Western University (Dec. 1981)

"Consultant's Role in Processing of Airport Environmental Actions," Perspectives on Airport Environmental Compatibility, Airport Operators Council Int'l Proceedings (March 1978)

RELEVANT EMPLOYMENT HISTORY (LAST 28 YEARS)

Chevalier, Allen & Lichman (1992-). Partner - law practice in aviation-related matters.

Aviation Systems, Inc. (1988-). Vice President and Director of Regulatory Affairs-- responsible for the firm's consulting services related to state and Federal regulatory compliance, aircraft noise, airport compatibility, accident probability studies, electromagnetic interference studies.

Bolt Beranek & Newman (1987-1988). Supervisory Consultant - responsible for aircraft noise studies and airport noise/landuse compatibility studies in the western U.S.

Forcite Group (1986-1987). Regional Manager for the firm's southwestern U.S. region - managerial responsibility for airport planning and environmental consulting and technical responsibility for aircraft noise studies.

Michael Brandman Associates (1983-1986). Principal in Charge of general noise consulting and airport planning/environmental activities.

CH2M Hill (1975-1983). Manager of Airport Environmental Services -- responsibilities included airport noise and air quality studies, airport environmental studies and landuse compatibility studies. (Note: The Airport Environmental Services Group was originally part of Olson Laboratories and was acquired by CH2M Hill in 1979).

Environmental Analysis Foundation (1972-1975). Project manager for noise and air quality studies.

SAIP-AL00005



September 13, 2005

Project File 765-05

Dr. Gary Allen
Aviation Systems, Inc.
2510 W. 237th Street, Suite 210
Torrance, CA 90505

Subject: Acoustical Review of the Draft South Airfield Improvement Project EIR for LAX

Dear Dr. Allen,

At your request, we have reviewed portions of the Draft Environmental Impact Report (EIR) for the South Airfield Improvement Project (SAIP) at LAX to identify construction noise issues that may be of concern to the City of El Segundo. The following provides our findings:

- On page IV-157, Section 4.5.2.4, a noise reduction of 4.5 dB per doubling of distance was used for construction equipment on the basis that the noise would travel over an open grassy field. Since both the airport and Imperial Highway are paved (with the exception of a small vegetated strip between the runway and taxiway), this noise reduction factor is inappropriate. The EIR should have used the more reasonable (and conservative) value of 3 dB per doubling of distance. As a result, the EIR likely underestimated construction equipment noise levels.
- On page IV-173, Section 4.5.3.2, no basis is given for asserting that construction noise would likely be inaudible to residents on Imperial Highway, especially during the early morning hours.
- On page IV-173, Section 4.5.3.2, the report appears to analyze construction traffic and equipment noise using CNEL. This is inconsistent with the approach described in other portions of the report, and with the threshold of significance identified in Section 4.5.4.2.
- On page IV-173, Section 4.5.3.2, no daytime or nighttime ambient Leq(h) noise levels are presented for assessing impacts. (Refer to Comment #9.) These levels should be available from monitor ES2.
- On page IV-173, Section 4.5.3.2, the report indicates that ambient aircraft peak noise levels are estimated to be above 85 dBA. The exact levels should be available from monitor ES2.
- On Exhibit 4.5-8, no basis is given in the text for defining a "construction noise impact area."
- On page IV-182, Section 4.5.4, there is no mention of the El Segundo noise ordinance standards when defining the thresholds of significance.
- On page IV-183, Section 4.5.4.2, there is no basis, using the LA CEQA guidelines, for separating construction traffic noise from construction equipment noise. The cumulative impact of both should be assessed relative to the guidelines. The report consistently assesses the impact of each separately.

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- On page IV-183, Section 4.5.4.2, the report identifies an Leq(h) criterion for assessing construction traffic noise. This is inconsistent with other portions of the text which describe the LA CEQA guidelines in terms of CNEL. Also, the LA CEQA guidelines have two criteria which the EIR must address. As indicated in the guidelines, "A project would normally have a significant impact on noise levels from construction if:
 - Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
 - Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 a.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday."
 The first criterion could be interpreted as referring to a daily CNEL value or an hourly Leq value, while the second clearly refers to an hourly Leq value during specific times of the day and days of the week. If the project's construction activities exceed either of these two criteria, a significant impact is assessed. Therefore, both must be considered in the analysis.
- On page IV-183, Section 4.5.4.3, there is no basis for separating construction equipment noise from construction traffic noise. The cumulative impact of both should be assessed relative to the guidelines.
- On page IV-183, Section 4.5.4.3, the LA CEQA guidelines have two criteria to be assessed, as discussed in Comment #9.
- On page IV-188, mitigation measure MM-N-9 indicates that construction equipment may have to comply with potential criteria set in a LAWA construction noise guideline document. What is this document, and what are the criteria?
- On page IV-188, mitigation measure MM-N-9 identifies an alternative to traditional back-up alarms. However, there are other alternatives permitted by OSHA that generate no noise (e.g., lights and flag men). These should be included.
- On page IV-188, mitigation measure MM-N-10 indicates that limits will be placed on noise emissions from heavy equipment during noise-sensitive hours, defined as 9 pm to 7 am Monday through Friday and 8 pm to 6 am on Saturday. These hours are not consistent with the LA CEQA guidelines. (See Comment #9b.) Also, Table 4.5-24 allows an activity factor of 90% from 6 am to 7 am, a limit of only 10% during this noise-sensitive hour. This is substantially higher than the hourly activity factors of 0% to 75% allowed during the other sensitive hours. Lastly, it is not clear why MM-N-10 considers 6 am to 7 am to be sensitive Monday through Friday but not on Saturday.
- On page IV-189, measures ST-16 and ST-22 indicate that truck routes will be on non-residential streets. However, the primary route is along Imperial Highway, which is bordered by numerous residential developments.
- On page IV-225, Section 4.5.6.2, the report concludes that there is no significant impact due to construction traffic because there won't be a 3-fold increase in traffic. This conclusion may be incorrect because the bulk of the increase on Imperial Highway will be heavy trucks, which

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generate significantly more noise than other vehicle types. There should be an analysis showing the increase in noise level taking into consideration the types of construction vehicles that will be using the roadways. Also, as indicated in Comment #8, the noise generated by the construction traffic should be added to that generated by the construction equipment to identify the overall increase in noise level. Lastly, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.

- On page IV-227, Section 4.5.6.3.1, the report states that the significance criterion is an increase of 5 dBA over ambient CNEL. This is inconsistent with Section 4.5.4.2 which states that the criterion for construction traffic noise is a 5 dBA increase in Leq(h), and Section 4.5.6.2 which assesses traffic noise impacts on the basis of Leq(h). Construction equipment should be considered using the same metric as construction traffic since, as indicated in Comment #8, the noise levels from both activities should be combined to assess impact.
- On page IV-227, Section 4.5.6.3.1, the report derives a 2005 non-construction ambient CNEL. This may also be inconsistent with the analysis of Section 4.5.6.2; however, it isn't clear that any baseline ambient level was used in the analysis of construction traffic noise impacts. A consistent baseline should be selected for the noise section of the Draft EIR.
- On page IV-227, Section 4.5.6.3.2, the report states that "it was conservatively assumed for this analysis that noise of 86 dBA can be detected 50 feet from the entire area boundary." What is the basis for assuming that 86 dBA, or any other level, is detectable at that distance?
- On page IV-227, Section 4.5.6.3.2, the analysis uses a noise level of 86 dBA at 50 feet for construction activity based on Exhibit I.1-2 of the LA CEQA guidelines. The exhibit is designed for assessing the construction of structures and facilities, and not the demolition and construction of an airport runway. Since the number, type and schedule for the construction equipment is identified in Appendix K, the actual construction noise levels should be analyzed.
- On page IV-227, Section 4.5.6.3.2, the analysis assumes a noise attenuation factor of 4.5 dB per doubling of distance because of the vegetation between the construction site and noise-sensitive land uses across Imperial Highway. A review of aerial photos indicates that the only vegetation is a small strip between the existing runway and taxiway. There is no justification for using a factor of 4.5 dBA for propagation over the paved airport grounds and Imperial Highway.
- On page IV-228, the analysis uses hourly activity factors to calculate the CNEL of the construction equipment. How were the hourly activity factors derived? What do they mean in practical terms for operations at the project site? Since the analysis uses a noise level obtained from the LA CEQA guidelines, the analytical procedures identified in those guidelines, which do not use hourly activity factors, should have been used. The report defines an hourly activity factor as the percentage of time that construction activities are emitting average noise levels of 86 dBA. Although not stated, the analysis assumes that construction activity generates no noise (or relatively very little noise) during the rest of the hour. For example, for an hourly activity factor of 50%, the analysis assumes the construction activity generates 86 dBA for 30 minutes and 0 dB (or significantly less than 86 dBA) for 30 minutes. This is not a reasonable scenario for construction activities. The analysis should be redone as indicated in Comment #20.

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- On page IV-231, Section 4.5.6.3.3, the calculation of CNEL at the residences is incorrect. Using the report's assumptions, the attenuation due to distance is $15 \cdot \log(600/50) = 16$ dB. When added to the CNEL calculated in Table 4.5-25, this yields a CNEL of 73 dB, not 70 dB as indicated in the report. When this is added to the assumed 2005 ambient CNEL of 68 dB, the overall CNEL with construction equipment is 74 dB, an increase of 4 dB over the 2003 ambient of 70 dB.
- On page IV-231, Section 4.5.6.3.3, the comparison of construction equipment noise to the ambient assumes a noise reduction factor of 4.5 dB per doubling of distance. As indicated in Comment #21, this is not appropriate. Using the more appropriate reduction of 3 dB per doubling of distance, the noise reduction is $10 \cdot \log(600/50) = 11$ dB. When added to the CNEL calculated in Table 4.5-25, this yields a CNEL of 78 dB. When this is added to the assumed 2005 ambient CNEL of 68 dB, the overall CNEL with construction equipment is 78 dB, an increase of 8 dB over the 2003 ambient of 70 dB. This is a significant impact since it exceeds the 5 dB increase threshold.
- On page IV-231, Section 4.5.6.3.3, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines, as indicated in Comment #9.
- On page IV-231, Section 4.5.6.3.4, the analysis conflicts with the analysis of Section 4.5.6.3.3. In Section 4.5.6.3.4, the threshold of significance is assumed to be 5 dB above the 2005 non-construction ambient, while in Section 4.5.6.3.3, the threshold of significance is assumed to be 5 dB above the 2003 Baseline ambient. The report needs to take a consistent approach. Based on Section 4.5.1, that approach is to compare the 2005 project levels with the 2003 Baseline ambient. On this basis, the analysis of Section 4.5.6.3.4 is incorrect.
- On page IV-231, Section 4.5.6.3.4, the determination as to whether construction noise exceeds the threshold of significance should be based on the composite construction noise level obtained by adding construction traffic noise to construction equipment noise. Also, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.
- On page IV-233, Section 4.5.7, there is no basis, using the LA CEQA guidelines, for separating construction traffic noise from construction equipment noise. The cumulative impact of both should be assessed relative to the guidelines.
- On page IV-234, Section 4.5.7.1, the assertion that traffic volumes would have to increase 3-fold to reach the CEQA threshold of significance is not necessarily correct, as discussed in Comment #16. Also, as indicated in Comment #9, the increase in Leq(h) needs to be analyzed and assessed during the noise sensitive hours defined by the LA CEQA guidelines.

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Wieland Associates, Inc.

FINAL
Review of LAX SAIP DEIR

Thank you for this opportunity to provide you with this review. If you have any questions, please do not hesitate to call us at 949/829-6722.

Sincerely,

WIELAND ASSOCIATES, INC.

David L. Wieland
Principal Consultant

Aviation Systems, Inc.
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David L. Wieland, Principal Consultant
Wieland Associates, Inc.

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AFFILIATIONS

Member, National Council of Acoustical Consultants (NCAC)
Member, Institute of Noise Control Engineering (INCE)
Member, Acoustical Society of America (ASA)
Member, California Chapter, American Planning Association (CCAPA)

EDUCATION & CREDENTIALS

Bachelor of Science in Physics (Cum Laude), University of Southern California
Certified Acoustical Consultant, San Diego County, California

EXPERIENCE

25 years' extensive experience on hundreds of projects involving building noise insulation, community noise, transportation and industrial noise, and environmental impact reports. Project responsibilities include managing projects; conducting noise measurement surveys; developing noise contours; analyzing data; assessing impacts relative to local, state and federal standards; developing noise control recommendations and specifications; developing software for several noise analysis applications including equipment sound power level testing. Reports have been approved by local, state and Federal agencies.

CAREER HIGHLIGHTS

Preparation of 27 Noise Elements of the General Plan; Principal Engineer on 24 freeway soundwall noise studies located in California and Arizona; Principal Engineer on several hundred residential and commercial/industrial projects in California, Arizona, Nevada and Mexico; Principal Engineer for the Superconducting Supercollider Project preliminary noise assessment in Texas; provided litigation support/expert witness assistance in over 30 construction defect cases located in California and Nevada; reviewer of other consultants' work for several municipalities.

REPRESENTATIVE PROJECT AREAS

Experience in each of the following areas of acoustics applications (a summary listing of the work performed within each category is available upon request):

Aircraft and Helicopter Noise Studies
Bars and Restaurants
Commercial/Industrial Noise Control
Emergency Generators
Freeway Noise Studies
General/Specific Plans
Gymnasiums/Multi-Use Rooms
Hotels and Motels
Litigation Support/Expert Witness
Mechanical Equipment
Mining-Related Operations
Noise Elements of the General Plan
Noise Ordinance Enforcement

Oil Related Projects
OSHA Related Projects
Outdoor Sports and Amphitheaters
Parking Structures
Plan and EIR Reviews
Pumping Stations
Railroad Projects
Residential Developments
Reverberation Noise/Room Acoustics
Schools and Classrooms
Street Widening and Alterations
Testing Services
Weapon Noise Studies



SAIP-AL00005

FICAN

Federal Interagency Committee on Aviation Noise

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Effects of Aviation Noise on Awakenings from Sleep

Federal Interagency Committee on Aviation Noise (FICAN)

June 1997

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. In 1992, the Federal Interagency Committee on Noise (FICAN) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened as a function of the exposure to single event noise levels expressed in terms of SEL. Since the adoption of FICAN's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed. The data from these studies show a consistent pattern, with considerably less percent of the exposed population expected to be behaviorally awakened than had been shown with laboratory studies.

FICAN recommends the adoption of a new dose-response curve for predicting awakening, based on the field data described in this paper and supporting references. The Committee takes the conservative position that, because the adopted curve represents the upper limit of the data presented, it should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened".

1. SUMMARY

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. Historical studies of sleep disturbance were conducted mainly in laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated noise. However, in a 1989 assessment of existing research, Pearsons indicated the need for substantially more work in this area, citing the large discrepancy between laboratory and field studies as a major concern.

In 1992, the Federal Interagency Committee on Noise (FICAN) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened (% awakening) as a function of the exposure to single event noise levels expressed in terms of sound exposure level (SEL). This interim curve was based on the data presented in the 1989 study. The FICAN report also recommended continued research into community reactions to aircraft noise, including sleep disturbance.

Since the adoption of FICAN's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed, using

a variety of test methods, and in a number of locations. The data from these studies show a consistent pattern, with considerably less percent of the exposed population expected to be behaviorally awakened than had been shown with laboratory studies.

In light of this new information, FICAN recommends the adoption of a new dose-response curve for predicting awakening, based on the field data described in this paper and supporting references. The Committee takes the conservative position that, because the adopted curve represents the upper limit of the data presented, it should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened". FICAN cautions that the dose-response relationship presented here relies on behavioral awakening as the indicator of sleep disturbance; relationships between aircraft noise and other potential sleep disturbance or related health effects responses have not been established by any of these newer studies. FICAN further notes that this curve should be applied only to long-term residential settings and should not be generalized to include children.

The new finding on the relationship between aircraft noise and sleep disturbance does not call into question the nighttime penalty applied to Day Night Sound Level (DNL). The 10 dB penalty added to noise levels for the period 10 p.m. to 7 a.m. is intended to account for the increased intrusiveness of noise at night. The ambient is generally lower and more people are at home during this period than at other times of the day. Thus, the opportunities for activity interference are much higher during nighttime which could lead to greater annoyance.

Continuing efforts to identify other dose-response relationships are being undertaken by standards-setting organizations, such as the American National Standards Institute. FICAN will evaluate proposed relationships developed by such groups as they are published; until that time, FICAN recommends the use of the curve presented here for assessing potential sleep disturbance caused by aircraft noise.

2. Background**2.1 The Nature of Sleep Disturbance**

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. Historical studies of sleep disturbance were conducted mainly in laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated transportation noise (Lukas, 1975; Griefahn and Muzet, 1978; and Pearsons et al., 1989).

Based on a 1989 literature review by Pearsons for the U.S. Air Force, no specific adverse health effects have been clearly associated with sleep disturbance, characterized either by awakening or by sleep-state changes (Pearsons, 1989). Nevertheless, sleep disturbance is deemed undesirable, and may be considered an impact caused by noise exposure.

2.2 Methodological Considerations

Sleep disturbance studies have employed a variety of factors in study design, sleep disturbance measurement, and noise exposure assessment. Differences in these techniques can have influences on the results of the studies, and a basic understanding of the differences is important for interpreting the results.

Study Design: Laboratory vs. Field Research

The most important issue with regard to the design of sleep disturbance studies has been the location of test subjects: as demonstrated in the meta-analysis by Pearsons, there has been a consistent, significant difference in the level of disturbance observed between laboratory studies, in which subjects are exposed to noise in a laboratory setting, and field studies, in which subjects are exposed to noise (actual or simulated) in their own home. Generally, laboratory studies have shown considerably more disturbance than field studies [Pearsons, 1995]. Finegold speculates that the significantly greater awakening observed in the laboratory is due to the lack of habituation [Finegold, 1993].

Measures of Sleep Disturbance

Distinctions can be made between a variety of sleep disturbance responses, which can be identified through different data collection methods in sleep studies.

Behavioral awakenings typically are defined as awakening by the subject enough to initiate a physical acknowledgment, such as button-pushing or verbal response. Sleep disturbance also can be defined as *arousals* or *gross bodily movement (motility)*, identified by periods of actimetric response (1), or by electroencephalographic (EEG) response, which may or may not result in actual awakening. Researchers are careful to point out that the relationship between behaviorally-confirmed awakening and motility is not clear, though both show clearly defined dose-response relationships.

In addition to the variety of measures for identifying disturbances from individual events, most sleep disturbance studies collect data from subjects concerning cumulative sleep effects. For example, measurements can be made of the total sleep time and/or time to fall asleep, and subjects can be questioned on sleep quality (feeling upon arousal, etc.). Two major problems with collecting cumulative data are the potential influence of disturbance caused by non-noise sources, and the difficulty of avoiding bias in test subjects on self-report.

Noise Metrics

Similarly, the noise metrics used to quantify noise exposure in sleep research fall into two categories: (1) measures of individual events, and (2) cumulative measures. Single event measures that have been used in sleep disturbance studies include the Maximum A-weighted Level (Lmax), Perceived Noise Level (PNL), Sound Exposure Level (SEL), Effective Perceived Noise Level (EPNL), and C-Level (CL). Cumulative measures are used to characterize the noise events over an entire night or day, and have included the Equivalent Noise Level (Leq), Composite Noise Level (CNL), Day-Night Average Sound Level (DNL), Community Noise Equivalent Level (CNEL), and Cumulative Distribution Levels or Percentile Levels, (Lx).

A-weighted measures of single events have been most often used in sleep disturbance studies, with either Lmax or SEL being used in most of the recent studies, based on general consensus that single event metrics are more useful for predicting sleep disturbance than cumulative measures (2).

2.3 FICON Sleep Disturbance Recommendations

In 1992, the Federal Interagency Committee on Noise (FICON) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened (% awakening) as a function of the exposure to single event noise levels expressed in terms of the sound exposure level, SEL [FICON, 1992]. This interim curve was based on statistical adjustment of Pearsons' 1989 analysis, and included data from both laboratory and field studies [Finegold, 1993]. The recommended dose-response relationship is shown in Figure 1, and can be expressed by the following equation:

$$\text{Awakenings} = 0.00007079 \times \text{SEL}^{3.496}$$

The FICON report also recommended continued research into community reactions to aircraft noise, including sleep disturbance.

3. Recent Sleep Disturbance Research

Three recent studies have added considerably to the stock of data on sleep disturbance caused by aviation noise. The first of these was conducted in the United Kingdom in 1992; the second in the U.S. near Castle Air Force Base and near Los Angeles International Airport in California in 1992; and the most recent study was conducted in communities near Stapleton International Airport (DEN) and near Denver International Airport (DIA) in Colorado, both before and after the opening of DIA in 1995. These studies are summarized below.

3.1 U.K. Study

The United Kingdom's (U.K.'s) Civil Aviation Authority initiated a study of aircraft noise and sleep disturbance in 1990 to assist the U.K. Department of Transport in developing proposals for future restrictions on nighttime aircraft operations at the London airports [Ollerhead et al., 1992]. In this field study, nearly 50,000 subject-hours of sleep disturbance were collected at four airports, using both activity meters (actimeters) and EEG to measure sleep disturbance in test subjects. In total, 5,742 subject-nights of actimetry data and 178 subject-nights of sleep-EEG data were collected.

The major conclusions of the study are as follows:

- All subjective reactions to noise vary greatly from person to person and from time to time and sleep disturbance is no exception; deviations from the average can be very large. Even so, this study indicates that, once asleep, very few people living near airports are at risk of any substantial sleep disturbance due to aircraft noise, even at the high event levels.
- At outdoor event levels below 90 dBA SEL (80 dBA Lmax),

average sleep disturbance rates are unlikely to be affected by aircraft noise. At higher levels, and most of the events upon which these conclusions are based were in the range 90 to 100 dBA SEL (80 to 95 dBA Lmax), the chance of the average person being awakened is about 1 in 75. Compared with the overall average of about 18 nightly awakenings, this probability indicates that even large numbers of noisy nighttime aircraft movements will cause very little increase in the average person's nightly awakenings. Therefore, based on expert opinion on the consequences of sleep disturbance, the results of this study provide no evidence to suggest that aircraft noise is likely to cause harmful after effects [Ollerhead et al., 1992].

Finally, the study emphasized that these are estimates of *average* awakenings, and it acknowledges that some individuals in any exposed population are likely to be more sensitive to nighttime noise, while others will be less sensitive.

3.2 Los Angeles Study

The 1992 study conducted for the USAF [Fidell et al., 1994] observed the effects of nighttime noise exposure on the in-home sleep of residents near Castle Air Force Base and near Los Angeles International Airport and in several suburban control households with negligible aircraft noise exposure. Test participants pressed a button upon awakening for any reason, after retiring for the evening. A total of 1,887 subject-nights of data were collected from 38 men and 47 women living in 45 different homes. Length of residence for the test subjects ranged from two to more than 40 years. Major findings of the study are as follows:

- A statistically reliable relationship was observed between sound exposure levels of noise intrusions in sleeping quarters and behaviorally confirmed awakenings within five minutes of occurrence of noise intrusions.
- Although outdoor noise exposure level at the test sites varied over the range of levels of principal interest for environmental analysis purposes (3), the prevalence for awakening among test participants did not increase greatly with sound exposure levels of noise intrusions in sleeping quarters.
- Of a total of 4,452 awakening responses, only 326 could be associated with noise events.
- The average spontaneous rate of behaviorally confirmed awakenings among test participants at all sites was approximately two per night. This figure did not differ significantly across sites with varying levels of nighttime noise exposure [Fidell et al., 1994].
- The authors cautioned that the test subjects may not be representative of all residential situations, and that generalizations of the data obtained in the study should be limited to long term residents of areas with stable nighttime noise exposure.

3.3 Denver Study

A large scale field study of noise-induced sleep disturbance was

conducted in the vicinities of Stapleton International Airport (DEN) and Denver International Airport (DIA) in anticipation of the closure of DEN and the opening of DIA. Both indoor and outdoor measurements of aircraft and other nighttime noises were made during four data collection periods. Measurements were made in 57 homes, over a total of 2,717 subject-nights of observations. Sleep disturbance was measured by several methods, including button pushes upon awakening and body movements, recorded by actimeters.

Although average noise event levels measured outdoors decreased significantly at sites near DEN after its closure and increased slightly at sites near DIA after its opening, indoor noise levels varied much less in homes near both airports. No large differences were observed in noise-induced sleep disturbance at either airport, as measured before and after the DIA opening. Indoor Sound Exposure Levels of noise events were, however, closely related to and good predictors of actimetrically defined motility and arousal.

The major findings of the Denver study are the following:

- The current findings closely resemble those of prior field studies of noise-induced sleep disturbance.
- Outdoor nighttime Leq decreased about 12 dB on average at DEN upon closure of the airport, but increased only about 3 dB at DIA after opening of the airport. Indoor nighttime Leq varied little at either location with the transfer of flight operations from DEN to DIA.
- The average number of behavioral awakenings per night was 1.8 at DEN and 1.5 at DIA. The number of spontaneous awakening responses (unassociated with noise events) was 1.5 per night at DEN and 1.3 at DIA.
- Statistically reliable relationships were observed between sound exposure levels of individual noise intrusions as measured inside sleeping quarters and several measures of sleep disturbance. [Fidell et al., 1995]

4. Recommended Revised Sleep Disturbance Relationship

FICAN has evaluated the data and conclusions of the three field studies described in this paper. The combined data are presented in Figure 2, along with data from six previous field studies [Pearsons, 1989]. The "FICAN 1997" curve shown in Figure 2 predicts a conservative dose-response relationship for the combined field data. The FICON curve is also depicted, for comparison purposes; based on the current field data, the dose-response relationship given by this older curve significantly overestimates the extent of aircraft noise-related awakenings for a given SEL exposure.

The FICAN 1997 curve represents the upper limit of the observed field data, and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened" for a given residential population. The central tendency of the recent data was not chosen as the recommended curve because it could underestimate awakenings for some situations or communities. FICAN cautions that the dose-response relationship presented here relies on behavioral

awakening as the indicator of sleep disturbance; relationships between aircraft noise and other potential sleep disturbance or related health effects responses have not been established by any of these newer studies.

FICAN further cautions that these data should be applied only to long term residents, although the inclusion of data from the opening of Denver International Airport suggests that people adapt to "new" noise rapidly. This curve should not be applied to estimate sleep disturbance in campgrounds, trailer parks, or other temporary residences. Nor should it be assumed that the curve can be generalized to include children, as only adults were included in the field studies.

The FICAN 1997 curve also is represented by the following equation:

$$Awakenings = 0.0087 \times (SEL-30)^{1.79}$$

Continuing efforts to identify other dose-response relationships are being undertaken by standards-setting organizations, such as the American National Standards Institute. FICAN will evaluate proposed relationships developed by such groups as they are published; until that time, FICAN recommends the use of the curve presented here for assessing potential sleep disturbance caused by aircraft noise.

Footnotes:

1. Actimeters are activity monitors, which record significant limb movements over a long period of time. In sleep disturbance studies, they generally are strapped to the wrist. Actimeters are generally considered to be a more practical and cost-effective method of collecting physical sleep disturbance data. [Back](#)
2. The use of single event measures in sleep disturbance studies does not suggest that the nighttime penalties used to assess noise in Day-Night Average Sound Level or other cumulative measures are incorrect or need re-evaluation; FICAN continues to support the use of DNL for addressing cumulative impact and its underlying assumptions regarding nighttime noise events. [Back](#)
3. Day-Night Average Sound Levels (DNL) at sites near Castle AFB ranged from 50 to 90 dB, while DNL at sites near LAX ranged from 60 to 70 dB. DNL at control sites ranged from about 50 to 70 dB (some control sites were exposed to high levels of road traffic noise). [Back](#)

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WORLD

'Superjumbo' A380 lands safely

Thursday, April 28, 2005 Posted: 10:48 AM EDT (1448 GMT)

TOULOUSE, France (CNN) -- The world's largest passenger plane, the Airbus A380, has landed safely in Toulouse, France after making its first test flight.

The double-decker "superjumbo" touched down on the runway at 2:22 p.m. (1222 GMT) Wednesday after a nearly four-hour flight with six crew members aboard.

"The takeoff was absolutely perfect," chief test pilot Jacques Rosay told reporters by radio from the A380 cockpit as he flew at 10,000 feet (3,000 meters) just north of the Pyrenees mountains, about an hour into the flight.

"The weather's wonderful."

Before it landed, the A380 -- its front lights shining -- did a slow fly-past above the airport in the Toulouse suburb of Blagnac, southwest France, where it had taken off at 10:29 a.m. (0829 GMT).

An estimated 30,000 onlookers, both invited and uninvited, cheered and applauded as the white-and-blue jet landed -- just as they did when it took off.

In Paris, French Cabinet ministers broke into applause when President Jacques Chirac told them of the successful takeoff.

Immediately after the landing, Chirac hailed the "total success of the first test flight of the Airbus A380."

In a statement from his office, Chirac said "a new page of aeronautical history has been written... It is a magnificent result for European industrial cooperation and an encouragement to pursue this path of

building a Europe of innovation and progress."

The European Union's industry commissioner, Guenter Verheugen, said the flight was a European "success story."

"This 'Super-Airbus' proves that cooperation with the EU pays off," he said.

The head of competitor Boeing's French division, Yves Galland, said he had watched the televised takeoff and, just this once, "shared the emotion of the people of Airbus."

But, speaking on LCI television, he also reiterated Boeing's argument that Airbus has overestimated the market for jumbo jets, which he called "quite weak."

Plane enthusiasts have watched in recent days as the A380 performed ground tests and taxiing maneuvers at the airport in Blagnac, where Airbus is headquartered.

The 308-ton jet stayed within about 100 miles (160 kilometers) of Toulouse, circling the region and beaming back real-time measurements from 22 tons of on-board test instruments to Airbus headquarters, officials said.

Including its bulky test equipment, fittings and fuel, Airbus said the A380 weighed 464 tons on takeoff Wednesday -- about 75 percent of its maximum authorized takeoff weight for commercial flights.

Weather conditions were nearly ideal for the takeoff and landing, with sunny skies and a gentle breeze blowing across the tarmac.

Airbus had warned that the flight, already about a month behind schedule, could have been further delayed by an unforeseen change in the wind.

A strong southerly wind from the Mediterranean would have meant automatic postponement, since it would have required a takeoff over the town -- considered too risky for a test flight.

Rosay, flight captain Claude Lelaie and their four fellow crew members wore parachutes for the flight in accordance with Airbus policy, spokeswoman

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VIDEO
The Airbus A380 takes off from Toulouse, France, for its maiden voyage.

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A decade after the initial planning and design, the Airbus A380 is set to make a jumbo debut.

*** PLAY VIDEO**

Airbus unveils the biggest commercial jet ever built in Toulouse, France.

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How keen are you to fly in the "superjumbo" A380?

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Barbara Kracht told The Associated Press.

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A handrail leads from the cockpit to an escape door that can be jettisoned if the pilots lose control of the plane.

Risks on a maiden voyage are very slim, aviation experts say, since a plane's aerodynamic characteristics are already well known before it takes off, thanks to years of computer modeling and wind-tunnel tests, AP said.

Problems are more likely, but still very rare, later in the test-flight program, when the pilots deliberately take the plane to its limits.

An Airbus A330 prototype crashed here in July 1994, killing chief test pilot Nick Warner and six others as they conducted a simulated engine failure exercise, AP reported.

Airbus vs. Boeing

Made by European company Airbus, the A380 is set to challenge the Boeing 747's long dominance of the jumbo jet market.

Airbus says dozens of airports are being updated to cope with the huge plane and extra passengers although its American rival Boeing says few are ready now.

The U.S. company also has embarked on a midsize long-range aircraft it is calling the 787 Dreamliner. Boeing is also looking at further modifying its aging 747 to take 450 passengers.

Boeing scored two victories this week in its trans-Atlantic battle with Airbus with announcements of major purchases by Air Canada and Air India.

On Monday, Air Canada's parent company said it had made firm orders for 18 Boeing 777 jets and 14 of the company's 787 Dreamliner jets in a deal worth \$5 billion at list prices.

As part of a plan to overhaul Air Canada's fleet, parent ACE Aviation Holdings said it also had options to buy a further 18 more 777 jets and 46 more 787s. (Full story)

And the board of India's state-owned international airline, Air India, has approved an order to purchase 50 Boeing aircraft worth \$8 billion, Boeing executives in Mumbai confirmed to CNN.

The Boeing planes included in the deal are eight 777-200LR ultra long-range models, 15 777-300ER long-range aircraft with 350 seats and 27 787 long-range aircraft with 250 seats. (Full story)

Meanwhile, China signed contracts on April 21 to buy five Airbus A380s and 25 other Airbus jetliners in a series of deals totaling more than \$3.2 billion. (Full story)

Thirteen companies have placed firm orders for 149 of the A380, which comes with a catalogue price of between \$263 million and \$286 million (200 million and 218 million euros).

France, Britain, Germany and Spain all invested heavily in the 10-year, 10-billion-plus euro (\$13-billion-plus) program to build the A380.

Although the project has run some \$1.4 billion over budget, Airbus believes it will recoup its costs in 2008 and be an extremely profitable flagship product for decades to come.

Airbus chief Noel Forgeard told CNN in January the aircraft had already nearly covered its costs. The A380 was originally unveiled at a star-studded event on January 18 in France. (Full story)

In a typical passenger layout, the jet has 555 seats and four aisles, with a range of up to 15,000 kilometers (8,000 nautical miles).

UPS and FedEx have ordered a freight version which is to be unveiled at a later date and will be able to carry cargos of 150 tons over 10,400 kilometers.

Some passenger planes will have cocktail bars, double beds and massages, while Airbus has suggested that selected jets may even have jacuzzis and mini-casinos.

According to Airbus, the A380 has about a 13 percent lower fuel burn than the 747 and is the first long-haul aircraft to consume less than 3 liters of fuel per passenger over 100 km - said to be as efficient as an average family car.

Carbon fiber components and fuel-efficient technology also mean the cost per passenger should be up to 20 percent less than on a 747, raising the possibility of cheaper tickets, Airbus said.

CNN's Richard Quest contributed to this report.

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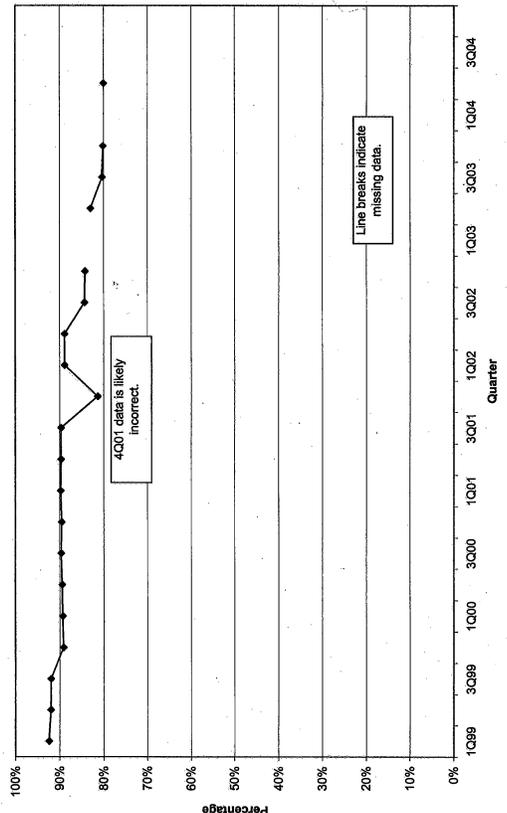
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Table 2: Percentage of Impacted Dwelling Units Without Sound Insulation



Sources: Los Angeles World Airports, Quarterly Report of Annual Noise Impact Areas: Los Angeles International Airport, issued quarterly (1995-2004).

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE CITY OF LOS ANGELES
AND THE CITY OF INGLEWOOD**

This Memorandum of Understanding ("MOU") provides a framework within which the City of Los Angeles, a municipal corporation, acting by and through its Department of Airports, known as "Los Angeles World Airports" ("LAWA"), and the City of Inglewood ("Inglewood"), a municipal corporation, will cooperate in pursuing and implementing certain measures designed to study and mitigate the possible environmental impacts on Inglewood of existing and potential future operations and improvements at Los Angeles International Airport ("LAX").

RECITALS

A. LAWA operates LAX which provides commercial air service, including passenger and cargo service, to customers throughout Southern California. In providing this service, LAWA from time to time designs and constructs improvements to LAX. Presently, LAWA is preparing a long-range Master Plan for the modernization of LAX.

B. LAWA is subject to the requirements of the California Environmental Quality Act ("CEQA") and the National Environmental Protection Act ("NEPA") and other state and federal laws in its operation of LAX. Together, these laws obligate and encourage LAWA to study and mitigate the possible environmental impacts of LAX operations and improvements. In the past, LAWA has prepared various environmental documents regarding its operations and improvements at LAX. LAWA has also prepared and recently released for public review and comment a Draft Environmental Impact Statement/Environmental Impact Report for the proposed LAX Master Plan.

C. LAWA is also presently undertaking a study, apart from the Master Plan and the Draft EIS/EIR thereon, that will inventory the sources and amounts of various toxic air pollutants in the LAX vicinity that may be generated by LAX-related sources and/or by a wide variety of other sources that have no connection with LAX (e.g., regional traffic on the I-405 and the I-105). The study will provide detailed information about LAX's role in emitting air toxics and the total concentrations of toxic air pollutants in the neighborhoods around LAX. Scientists from the California Air Resources Board, U.S. Environmental Protection Agency, and the South Coast Air Quality Management District ("SCAQMD") are cooperating with LAWA to help shape and manage the study, which is anticipated to fill many of the data gaps left by the 1998 Multiple Air Toxics Exposure Study ("MATES-II") conducted by SCAQMD. The study is intended to be a comprehensive air modeling and measurement analysis, and goes beyond any federal and state requirement.

D. Pursuant to its ongoing environmental mitigation programs, LAWA has cooperated with Inglewood to design and carry out various mitigation measures within

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Inglewood. For example, LAWA has provided approximately \$40 million to Inglewood to date - funds which have been earmarked to implement the LAX noise mitigation program within the 65 dBA CNEL noise contour. This program has resulted in, among other things, Inglewood using these funds to acquire many noise-impacted residences and thereafter recycling the acquired land into noise-compatible uses. These LAWA funds have also been utilized by Inglewood to provide noise insulation to many Inglewood residences within the 65 dBA CNEL noise contour.

E. As expressly authorized by the Board of Airport Commissioners ("BOAC") of the City of Los Angeles and the Inglewood City Council, LAWA and Inglewood desire to provide in this MOU a framework for cooperation in studying, designing and implementing further mitigation measures within Inglewood that LAWA and Inglewood from time to time may agree would be necessary and appropriate. So long as both LAWA and Inglewood agree that such cooperation is mutually beneficial and continues to be demonstrated by each party, this MOU shall remain in effect. If either party ceases to cooperate, for example by commencing litigation against the other party, either party in its sole and exclusive discretion may unilaterally declare this MOU to be of no further effect and may terminate it forthwith, and the further study, design and implementation of mitigation measures pursuant to the terms of this agreement shall thereupon immediately cease.

THE PARTIES AGREE AS FOLLOWS:

STUDY AND IMPLEMENTATION OF LAWA'S NOISE MITIGATION PROGRAMS

Suspension of Aviation Easement Requirements

1. In its past administration of the LAX noise mitigation program, LAWA has insisted that all homeowners receiving LAWA-provided noise insulation measures within the 65 dBA CNEL noise contour must execute express aviation easements. LAWA has taken the position that, in return for LAWA's providing these noise insulation benefits, each homeowner must sign such an agreement thereby expressly waiving and foregoing his or her ability to sue LAWA with respect to certain noise impacts on the affected residence that are created by aircraft operations at LAX. In order to promote the cooperation between LAWA and Inglewood that is envisioned by this MOU and so long as this MOU remains in effect, LAWA has agreed to suspend its requirement that such aviation easements be executed by homeowners receiving LAWA-provided noise insulation benefits for residences located within Inglewood. LAWA has further agreed that any such aviation easements executed by any Inglewood homeowner who has received, will receive, or is eligible to receive LAWA-provided noise insulation benefits for residences located within Inglewood will be suspended and shall be of no force or effect during the term of this MOU. LAWA's assuming this new position during the effective term of this MOU is subject to approval by Caltrans, which presently requires such aviation easements as part of LAWA's ongoing noise variance within its permit from Caltrans to operate LAX. LAWA will forthwith make all reasonable efforts to obtain

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Caltrans' expedited approval of this suspension. In lieu of requiring such aviation easements, the parties will develop and implement a provision for giving notice to existing and future homeowners within the 65 dBA CNEL noise contour regarding the existence and significance of such noise impacts. This notification process will include the following components: (a) a written acknowledgment by the homeowner, accompanying the homeowner's authorization to proceed with the insulation, that he/she is aware of the existence and extent of LAX noise impact levels and of the noise attenuation that the proposed insulation is intended to provide, (b) a written acknowledgment by the homeowner, following installation, that the improvements have been installed and have attenuated the noise, and (c) enactment by the Inglewood City Council of an ordinance provision requiring that sellers of Inglewood residences give notice to buyers, accompanying other mandatory disclosures by sellers, regarding the LAX noise impact levels and the attenuating effect of the insulation. Under the approach to be taken during the pendency of this MOU, Inglewood homeowners will be able to obtain the noise insulation benefits in question without executing express aviation easements. The parties will also prepare a schedule and work program by which the existing noise insulation program will be implemented on an accelerated basis.

Pilot Program for Noise Insulation in Certain Residences

2. On a pilot project basis, LAWA and Inglewood will study certain areas where residences do not otherwise qualify for sound insulation. For mutually agreed-upon special circumstances and unique reasons that apply to specific residential areas, the parties may agree that it is necessary and appropriate to provide noise insulation benefits in order to reduce interior noise levels to certain mutually agreed-upon levels. The parties will cooperate in seeking to obtain, where necessary, federal approval for the expenditure of airport-related funds in connection with such noise mitigation measures. Subject to this approval, LAWA will make available up to \$10 million during the term of this MOU to fund this pilot program. The parties will prepare a schedule and work program by which this pilot program will be implemented.

Air Conditioning in All Noise Insulated Residences

3. LAWA has been pursuing, as an additional mitigation measure for residences obtaining noise insulation, the air conditioning of the insulated residences. During the term of this MOU, LAWA will continue providing air conditioning systems to residences that are being insulated.

New Part 150 Noise Study: Noise Exposure Maps and Over-the-Ocean Night Take-Off Requirements

4. LAWA will (a) consider publishing new, updated noise exposure maps, and (b) initiate a new Part 150 study that will have the objectives of investigating alternative means to obtain compliance with over-the-ocean takeoff requirements, particularly at night.

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New Part 161 Noise Study: New Penalties for Violations of LAX Night-Time Over-Ocean Policies and Procedures

5. LAWA will forthwith initiate a Part 161 Study whose purpose will be to obtain FAA approval of various penalties that can be imposed on airlines whose flights violate the existing LAX night-time over-ocean policies and procedures. Under these policies and procedures, no flights are allowed to land or takeoff over Inglewood and areas to the east of LAX, unless wind patterns or other circumstances are such that it would be a safety hazard to land or takeoff over the Pacific Ocean to the west. LAWA will expedite processing of this study as quickly as possible.

Aircraft Noise Task Force

6. LAWA will forthwith establish an Aircraft Noise Task Force in order to bring interested parties together to discuss apparent curfew violations, proposed curfew violation penalties, and other LAX noise-related matters. This Airport Noise Task Force will include representatives identified by Inglewood.

**STUDY AND IMPLEMENTATION OF LAWA'S
AIR QUALITY MITIGATION PROGRAM**

7. LAWA will complete its study of toxic air pollutants in the vicinity of LAX, and, upon the study's completion, LAWA will meet and confer with Inglewood representatives regarding the study's results and regarding such further studies and steps to be taken with respect to toxic air pollutants as the parties may mutually agree.

**STUDY AND IMPLEMENTATION OF EXTENSION
TO LAWA'S CENTURY BOULEVARD TRAFFIC CORRIDOR MITIGATION
AND ENHANCEMENT PROJECT**

8. LAWA is currently implementing a Century Boulevard traffic corridor mitigation and enhancement project. LAWA and Inglewood will cooperate to study an extension of this project into Inglewood from La Cienega Boulevard to Crenshaw Boulevard. The parties will cooperate in seeking to obtain on an expedited basis any necessary federal approvals for LAWA's funding participation in this extension project. Subject to this approval, LAWA will make available up to \$10 million during the term of this MOU in order to fund such improvements. The parties will prepare a schedule and work program by which the extension project will be implemented.

JOB TRAINING AND RECRUITMENT

9. LAWA has previously developed and implemented several job training and recruitment programs targeted toward communities in the vicinity of LAX. Currently, over 50,000 jobs are directly due to operations at LAX. Employees who live in Inglewood presently hold approximately four percent (4%) of these jobs. In 2015, under the No Additional Runway alternative of the LAX Master Plan, the number of LAX jobs held by

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Inglewood residents is projected to increase by twenty percent (20%). To facilitate this, LAWA will do the following:

- a. Relocate the LAX Gateways High School and College Internship Program to a site within the City of Inglewood;
- b. Conduct a comprehensive marketing program to bring awareness of job opportunities at LAX to Inglewood residents; and
- c. Work in partnership with Inglewood community-based organizations and LAX employers to facilitate the matching of qualified applicants with emerging job opportunities at LAX.

MISCELLANEOUS PROVISIONS

- 10. **No Third Party Beneficiary.** This MOU is entered into solely for the benefit of LAWA and Inglewood, and not for any other person. No third person has any rights with respect to, or under, this MOU, or its execution, performance or nonperformance.
- 11. **Effective Date.** This MOU will be effective as of the date when, following its approval by the Board of Airport Commissioners of the City of Los Angeles and by the Inglewood City Council, it is executed by duly authorized officers of both LAWA and Inglewood. It is the intention of the parties that Inglewood will first execute this MOU and then submit it to LAWA. A fully executed counterpart will be transmitted by LAWA to Inglewood.
- 12. **Term.** The term of this MOU shall extend for ten (10) years, unless either party decides to declare it of no further effect and thereby terminates it forthwith.

City of Inglewood

APPROVED BY CITY COUNCIL 2/6/01.


 by: Mayor
 City of Inglewood

2/6/01
 Date

Los Angeles World Airports


 by: Executive Director
 Los Angeles World Airports

2/6/01
 Date

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**RESOLUTION
LOS ANGELES COUNTY AIRPORT LAND USE COMMISSION**

WHEREAS, the Los Angeles County Airport Land Use Commission ("ALUC") met publicly on March 30, 2005 to discuss the appeals submitted by the City of El Segundo and the County of Los Angeles regarding impasses that have resulted between the appellants and the City of Los Angeles over approval of the LAX Master Plan Program ("Master Plan").

WHEREAS, the Commission finds as follows:

- 1. The State Aeronautics Act ("Act"), Section 21670, et seq. of the California Public Utilities Code ("PUC") requires every county in which there is an airport served by a scheduled airline to establish an airport land use commission.
- 2. Pursuant to Section 21670.2 of the PUC, the Los Angeles County Regional Planning Commission has the responsibility for acting as the ALUC for Los Angeles County and thereby coordinating the airport planning of public agencies within the County.
- 3. Section 21670.2 of the PUC also provides that in instances where impasses result relative to airport planning, an appeal may be made to the ALUC by any public agency involved.
- 4. According to Section 21670(a)(1) of the PUC, one purpose of the Act is to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.
- 5. As described in Section 21670(a)(2) of the PUC, another purpose of the Act is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.
- 6. The powers and duties of the ALUC are contained in Section 21674(b) of the PUC which identifies the ALUC's role in coordinating airport planning at the state, regional, and local levels as one to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

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- 7. The ALUC's review of an appeal primarily considers whether the airport planning being appealed is consistent with Article 3.5 of Chapter 4 of the Act (Section 21670 et seq. of the PUC). An appeal may be upheld by the ALUC if it finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the airport planning proposed by the public agency whose planning led to the appeal is not consistent with the purposes of the Act. An appeal shall be denied when the ALUC finds that the information submitted by the appellant and/or presented at the public hearing substantiates that the proposed airport planning is consistent with the purposes of the Act.
- 8. Impasse appeals were received within 30 days of the date of the Los Angeles City Council's final decision on December 7, 2004 on the Master Plan, which is within the time limit established for receiving appeals by the ALUC pursuant to the ALUC Review Procedures, Chapter 2, Section 5.2.2.
- 9. On March 17, 2005, the ALUC was sent the following material:
 - Appeal submittal from the City of El Segundo dated December 29, 2004 and March 20, 2005
 - Appeal submittal from the County of Los Angeles dated January 5, 2005
 - Correspondence from the California Department of Transportation, Division of Aeronautics dated January 28, 2005
 - Correspondence from Carlyle Hall, attorney for Los Angeles World Airports (2 letters, dated February 25, 2005 and February 28, 2005)
 - Correspondence from ALUC regarding impasse appeals to
 - 1. Response letter to R. Austin Wiswell dated March 8, 2005
 - 2. Response letter to Carlyle Hall dated March 15, 2005
 - Section 21670.2 of the PUC
 - ALUC Review Procedures (pages 2-21 through 2-24)
- 10. On March 30, 2005, the ALUC held a public hearing and received oral and/or written testimony from the two appellants, four elected/appointed officials or their representatives, and three members of the public all speaking in support of the impasse appeals. No one spoke in opposition to the impasse appeals. The City of Los Angeles was given several opportunities to speak; however, no one representing the City spoke or presented any written testimony.
- 11. The impasse issues from the City of El Segundo relate to **airport capacity** and a **regional approach to airport planning**. Impasse issues from the County of Los Angeles also concern a regional approach to airport planning, and in addition include **consistency with the Los Angeles**

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County CLUP and airport security. The impasses are between the appellants and the City of Los Angeles and concern the City of Los Angeles's decision to approve the Master Plan.

- 12. Regarding the **airport capacity** impasse:
 - a. At the final stage of implementation, the Master Plan proposes to limit the number of aircraft gates to 153 to restrict the airport's capacity to 78.9 million annual passengers (MAP).
 - b. The City of El Segundo believes that restricting gates is an inadequate capacity control and a dispute over airport capacity between the City of Los Angeles and the City of El Segundo has reached an impasse.
 - c. Due to the present, limited ground access system, the maximum capacity of LAX is generally agreed to be 78.9 MAP. The present number of gates at LAX is 115 plus 48 remote stands (for a total of 163 gates).
 - d. An independent analysis of airport capacity was provided to the City of El Segundo by an airport facilities expert. The analysis presented information that caused the City of El Segundo to dispute the method used in the Master Plan to constrain capacity. The independent analysis notes that the present constraining factor, ground access, will be improved allowing increased utilization of gates which could increase the airport capacity to as much as 89 MAP.
 - e. The City of El Segundo contends that safeguards are not in place in the Master Plan to prevent more than 153 of gates from being used at intermediate phases in the implementation of the Master Plan. The Master Plan only restricts the number of gates in the final phase of development when all facilities have been developed.
 - f. Potential discrepancies in passenger capacity could result in unplanned airport impacts in the surrounding community. Unplanned impacts could potentially lead to inappropriate development surrounding the airport. Such development places local jurisdictions, property owners and the airport at odds and thereby prevents the purpose of the Act from being achieved.
 - g. The Master Plan proposes to realign the southernmost runway 50 feet to the south, which is one of the facility enhancements. A multi-family structure in the City of El Segundo is located within the proposed runway protection zone (RPZ). The proposed location of the RPZ will create a new safety problem in the City of El Segundo.

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h. The Act recognizes that noise and safety impacts cannot be completely avoided in airport planning. For this reason, airport land use compatibility planning brings together the affected jurisdictions to mutually-agreed impact levels. This type of coordinated planning between jurisdictions minimizes impacts because the airport's interests are protected while local jurisdictions, understanding the noise and safety impacts that will occur from the airport, plan accordingly and protect the interests of its constituents. Approval of the Master Plan while the MAP issue remains unresolved creates the potential for new noise and safety impacts to be introduced without adequate planning or mitigation and prevents the airport land use compatibility planning described in the Act from being accomplished, thereby thwarting the purposes of the Act.

13. Regarding the regional approach impasse:

- a. If the demand for increases in air travel is met with a greater emphasis on other airports in the region, significant capacity increases at LAX would not be necessary. Unnecessarily concentrating airport facilities at one location, LAX, is not the orderly expansion of airports the Act intends.
- b. The ALUC role in orderly airport planning and development includes coordinating with jurisdictions on preferred locations of airport facilities and expansions with regard to surrounding land use compatibility.
- c. The appellants contend that the Master Plan did not consider growth at other airports in the region where airport land use compatibility with the surrounding community may be better achieved.
- d. A regional approach to airport planning that provides for the growth of aviation facilities in undeveloped or less developed areas, such as Palmdale Regional Airport, where airport land use compatibility planning can be more effective would be consistent with the purposes of the Act.
- e. Providing airport facilities in urban areas can be consistent with the purposes of the Act provided that the public's exposure to excessive noise and safety hazards is minimized.

14. Regarding the consistency with the CLUP impasse issue:

- a. The appellant alleges that the ALUC can continue to discuss the matter of the Master Plan's inconsistency with the CLUP and the Los Angeles City Council decision to overrule the ALUC's determination that the Master Plan is inconsistent with the CLUP.

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b. The ALUC does not have the ability under the Act to continue the discussion regarding the inconsistency between the Master Plan and CLUP after the City of Los Angeles took its overrule action. During that overrule process, by resolution, the ALUC issued comments in opposition to the Master Plan as it relates to health and safety policies in the CLUP and opposed the City's overrule. The PUC gives the ALUC this authority and requires that the overruling agency consider those comments before taking final action on the overrule.

c. The Los Angeles City Council overruled the ALUC's determination that the Master Plan was inconsistent with the CLUP on December 7, 2004. The decision was made with a 12-3 vote by the City Council.

15. Regarding the airport security impasse:

- a. The appellant County of Los Angeles has requested that the City of Los Angeles refrain from taking final action on the Master Plan until the final results of a Rand Corporation study on airport security are released. The Rand Corporation study is focused on the security aspects of the proposed Ground Transportation Center (GTC).
- b. The Rand Corporation study on airport security is in progress. A release date has not been made public.
- c. The appellant's discussion on this impasse issue was minimal. Most significantly, the appellant failed to show a sufficient nexus between the security issues to be addressed in the Rand study and the purposes of the Act, including the powers and duties of the ALUC. For this reason, the appellant has failed to meet its burden of proof on the issue.

16. Final approval of the Master Plan will position the plan as the guiding planning document until 2015 (the Master Plan planning horizon). Discrepancies between airport plans and local jurisdictions' general or community plans will impair the ALUC's ability to fulfill its statutory responsibility to coordinate the planning for the areas surrounding each public use airport.

17. Airport land use compatibility planning cannot function in urban areas if airport planning does not include negotiation and coordination with surrounding jurisdictions concerning land use planning. When jurisdictions agree on activity and impact levels and plan using the same assumptions, both take responsibility to minimizing the public's exposure to health and safety impacts from the airport.

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- 18. Pursuant to Section 21670.2(a) of the PUC, the action taken by the ALUC on the impasse appeals may be overruled by a four-fifths vote of the Los Angeles City Council, the public agency whose planning led to the appeal.
- 19. The ALUC Review Procedures, Section 5.5 (ALUC's Possible Actions) provides the standard for action on an impasse appeal. That standard is whether the airport planning being appealed is consistent with the purposes of Article 3.5 of Chapter 4 of the Act (PUC Sections 21670-21679.5).

NOW, THEREFORE, BE IT RESOLVED that the County ALUC:

FOR AVIATION CASE RAV2005-00001 (APPEAL SUBMITTED BY THE CITY OF EL SEGUNDO):

- 1. Upholds the appeal on airport capacity because there are areas that will be affected by implementation of the Master Plan where new noise and safety problems will be created, thus the Master Plan is inconsistent with PUC Section 21670(a)(1).
- 2. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

AND FOR AVIATION CASE RAV2005-00002 (APPEAL SUBMITTED BY THE COUNTY OF LOS ANGELES):

- 1. Denies the appeal concerning the ALUC's prior inconsistency determination on the Master Plan's inconsistency with the CLUP because the ALUC has no authority to discuss the matter after the overrule.
- 2. Denies the appeal on airport security because the appellant has not met the burden of proof by demonstrating there is a nexus between airport security and the purposes of the Act.
- 3. Upholds the appeal on a regional approach to airport planning because the Master Plan does not consider expanding airport facilities in areas where the public's exposure to excessive noise and safety can be minimized, thus the Master Plan is inconsistent with PUC Section 21670(a)(2).

I hereby certify that the foregoing resolution was adopted by the Los Angeles County

SAIP-AL00005

Airport Land Use Commission on April 20, 2005.

By Rosie O. Ruiz
 Rosie O. Ruiz, Secretary
 Los Angeles County
 Airport Land Use Commission

APPROVED AS TO FORM:

OFFICE OF THE COUNTY COUNSEL

By Lawrence L. Hafetz
 LAWRENCE L. HAFETZ
 Principal Deputy County Counsel
 Public Works Division

RDH:JTM:MC
 04/14/05

SAIP-AL00005

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Pat Modugno, Vice Chair
Esther L. Valadez
Leslie G. Bellamy
Harold V. Heitsley

August 22, 2005

Karen Hoo
Los Angeles World Airports
Long Range Planning Department
1 World Way, Room 308
Los Angeles, CA 90045-5803

RE: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
SOUTH AIRFIELD IMPROVEMENT PROJECT (SAIP)
AVIATION CASE NO. AD 017-04

Dear Ms. Hoo:

In response to your letter dated August 1, 2005 regarding the above referenced project, please be advised that in April 2005, the Los Angeles County Airport Land Use Commission (ALUC) ruled to uphold impasse appeals filed against the LAX Master Plan Program which have not been resolved by the Los Angeles City Council. Therefore, implementation of any aspect of the LAX Master Plan can not proceed until the project is either revised to resolve areas of appeal, or the Los Angeles City Council completes the necessary actions to overrule the ALUC's decision on the appeal. Pursuant to Public Utilities Code (PUC) Section 21670.2(a), a four-fifths vote of the City Council is required to successfully overrule the ALUC determination.

The impasse appeals were received from the City of El Segundo and from the County of Los Angeles, and were filed pursuant to PUC Section 21670.2 (a). As no action has been taken by the Los Angeles City Council on the impasse appeal issues, which are directly related to what is now the South Airfield Improvement Project (SAIP), moving forward with the SAIP at this stage would be inappropriate. Enclosed you will find a copy of the ALUC resolution for the action taken on April 20, 2005 on the impasse appeals.

James E. Hartl, AICP
Director of Planning
Dept. of Regional Planning

Rosie O. Ruiz
Secretary to the Commission

320 West Temple Street, Los Angeles, California 90012 Telephone (213) 974-6409 or TDD (213) 974-6408 SAIP-AL00005

If you have any questions please call Julie Moore or Mark Child at (213) 974-6425, Monday through Thursday between 7:30 a.m. 6:00 p.m. Our office is closed on Fridays.

Very Truly Yours,

DEPARTMENT OF REGIONAL PLANNING
James E. Hartl, AICP
Director of Planning

Ronald D. Hoffman, Administrator
Advance Planning Division

RDH:JTM:MC

Attachment: ALUC Resolution dated 4/20/05

cc: ALUC
County of Los Angeles
City of El Segundo

James E. Hartl, AICP
Director of Planning
Dept. of Regional Planning

Rosie O. Ruiz
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September 29, 2005

Karen Hoo
Long Range Planning
Los Angeles World Airports
City of Los Angeles
7301 World Way, Rm. 308
Los Angeles, CA 90045

Re: Addendum to Comments on Project-Level Tiered Draft
Environmental Impact Report for the South Airfield Improvement
Project at Los Angeles International Airport, State Clearinghouse
No. 2004081039.

Dear Ms. Hoo:

This letter supplements our September 14, 2005 comments on the Draft Environmental Impact Report for the proposed South Airfield Improvement Project ("DEIR"), submitted on behalf of the City of El Segundo. As noted in those comments and in our September 9, 2005 letter requesting an extension to the DEIR comment period, LAWA's lengthy delay in providing essential documents has precluded us from making meaningful comments on the DEIR's air quality analysis until now. Our air quality comments are provided in the report by Petra Pless, D. Env., attached to this letter as Exhibit 1; Dr. Pless's extensive credentials are provided in the curriculum vitae attached as Exhibit 2. We look forward to LAWA's responses to these comments.

We have also attached as Exhibit 3 a recent article from the *New York Times* noting in the wake of Hurricane Katrina that storm-frequency models may be growing outdated as the climate changes. This recognition that, in the words of one oil industry expert, "[w]e're seeing more 100-year events happening more often, even every few years," strongly suggests that storm models must be revised, as we pointed out in section V.C.3 of our September 14, 2005 comments.

We reiterate our position that the SAIP DEIR does not comply with the California Environmental Quality Act ("CEQA") for all of the reasons set forth here, in

Karen Hoo
September 29, 2005
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the attached report, and in our previous comments. Unless the DEIR is extensively revised and recirculated, any approvals made on the basis of its environmental analysis will be unlawful.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

ROBERT S. PERLMUTTER

EXHIBITS

- Exhibit 1: September 2005 report of Petra Pless, D. Env.
- Exhibit 2: Resume of Petra Pless, D. Env.
- Exhibit 3: Jad Mouwad, "At Time of Epic Storms, Oil Industry Thinks Anew," *New York Times*, Sept. 15, 2005, at C1.

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Comments
on
AIR QUALITY AND PUBLIC HEALTH

Project-level Tiered
Draft Environmental Impact Report
South Airfield Improvement Project
Los Angeles International Airport

 Prepared by

Petra Pless, D.Env.
Leson & Associates
Kensington, CA

 September 29, 2005

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- Exhibit A: Excerpts from California Air Resources Board, Assessment of Emissions of Lubrizol's PuriNOx Water/Diesel Emulsion on Exhaust Emissions from Heavy-Duty Diesel Engines, March 2004; Attachment B to State of California, California Environmental Protection Agency, Multi-Media Assessment of Lubrizol's PuriNOx Water/Diesel Emulsion, March 2004.
- Exhibit B: U.S. Environmental Protection Agency, Retrofit Technologies from Lubrizol Corporation, August 5, 2004.

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COMMENTS

Los Angeles World Airports ("LAWA"), as the lead agency under the California Environmental Quality Act ("CEQA"), has prepared a project-level draft environmental impact report ("Draft EIR") for the South Airfield Improvement Project ("SAIP" or "Project")¹ at Los Angeles International Airport ("LAX"). This Draft EIR is tiered from, and incorporates by reference, the LAX Master Plan Final EIR², which analyzed on a program level the impacts resulting from the proposed extensive modernization of LAX. The SAIP is the first LAX Master Plan project proposed for implementation. The SAIP Draft EIR provides project-specific information on the construction of the SAIP, focusing on potentially significant environmental effects at the project level of detail that may not have been specifically addressed in the prior LAX Master Plan EIR. The SAIP Draft EIR also identifies elements of the LAX Master Plan Mitigation Monitoring and Reporting Program³ ("MMRP") applicable to construction of the SAIP. (SAIP Draft EIR, pp. I-3/4.)

Specifically, the SAIP would provide a new parallel taxiway between the two south airfield runways. To accommodate the new center taxiway, the existing southern-most runway, Runway 7R-25L, would be relocated approximately 55 feet south of its current centerline location. The relocation of Runway 7R-25L would include the relocation and replacement of all navigational and visual aids and other associated site work such as utilities, lighting, signage, grading, and drainage. (SAIP Draft EIR, p. II-1.) In addition, airfield improvements would include construction of a new 11,906-foot long by 100-foot wide, full length parallel taxiway between Runways 7L-25R and 7R-25L. (SAIP Draft EIR, p. II-3.)

My colleague Dr. Phyllis Fox and I previously commented on the inadequate environmental review for the LAX Master Plan as presented in the Draft EIR, its Supplement, and the Final EIR and the failure of these documents to meet the requirements of CEQA. We identified and discussed a large number of issues with respect to impacts on air quality and public health and identified

¹ City of Los Angeles, South Airfield Improvement Project, Los Angeles International Airport (LAX), Proposed LAX Master Plan Project, Project-level Tiered Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2004061009, Los Angeles City File No. AD 017-04, August 2005.

² City of Los Angeles, Los Angeles International Airport, Proposed Master Plan Improvements, Final Environmental Impact Report, (Final EIR), State Clearinghouse No. 1997061047, April 2004.

³ Los Angeles World Airports, LAX Master Plan, Taking Flight for a Better Future, Alternative D, Mitigation Monitoring and Reporting Program, revised September 2004.

additional feasible mitigation to reduce the enormous adverse impacts that would result from implementation of the LAX Master Plan. (Fox 2001⁴; Fox & Pless 2003⁵; Fox & Pless 2004⁶.)

On the surface, the SAIP Draft EIR appears to have resolved several key issues, which LAWA in the past had repeatedly refused to address and did not resolve in the environmental review process for the LAX Master Plan. For example, the SAIP Draft EIR now contains an analysis of PM2.5 impacts, which LAWA had steadfastly refused to include in the LAX Master Plan Final EIR. (See Fox 2001, Comment III.D; Fox & Pless 2003, Comment II.A; Fox & Pless 2004, Comment III.) Another example is the addition of several emission sources to the SAIP Draft EIR emissions inventory that were not included in the LAX Master Plan emissions inventory, e.g., fugitive dust emissions from wind erosion of graded areas and volatile emissions from asphalt paving and striping and architectural coatings. (See Fox & Pless 2004, Comments V.D and V.E.) Yet another example is the lowering of the total incremental chronic hazard index significance threshold from five in the LAX Master Plan Final EIR to one in the SAIP Draft EIR. (See Fox 2001, Comment V.A; Fox & Pless 2003, Comment VII.B.1.)

Nonetheless, as demonstrated in the comments below, the SAIP Draft EIR suffers from a number of serious problems, most of which are inherent in its exclusive reliance on the mitigation identified in the LAX Master Plan MMRP. Many of our comments on the various LAX Master Plan CEQA review documents remain equally applicable to the SAIP Draft EIR and are herewith incorporated by reference. The comments below provide an analysis of the SAIP Draft EIR's failure to meet the requirements of CEQA and demonstrate that the SAIP Draft EIR carries forth the inadequacy of the environmental review process for the LAX Master Plan. Specifically, the SAIP Draft EIR fails to adequately mitigate its significant unavoidable impacts because it improperly relies on a mitigation program designed to mitigate considerably lower emissions than

⁴ J. Phyllis Fox, Ph.D., Comments on Air Quality and Human Health and Safety, LAX Master Plan Draft EIS/EIR, July 13, 2001; Attachment C to September 18, 2001 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

⁵ J. Phyllis Fox, Ph.D., and Petra Pless, D.Env., Comments on Air Quality and Human Health and Safety, LAX Master Plan Supplement to the Draft Environmental Impact Statement/Environmental Impact Report, November 2003; Attachment 3 to November 4, 2003 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

⁶ J. Phyllis Fox, Ph.D., and Petra Pless, D.Env., Comments on Air Quality and Public Health, Los Angeles International Airport, Proposed Master Plan Improvements, Final Environmental Impact Report, November 29, 2004; Exhibit A to December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger LLP.

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identified in the SAIP Draft EIR. And finally, the SAIP Draft EIR is incomplete and inconsistent.

I. SAIP EMISSIONS ARE NOT ADEQUATELY MITIGATED

The SAIP Draft EIR identifies considerably higher emissions attributable to Project construction and operation than those identified for this project component in the LAX Master Plan and mitigated by the MMRP. As discussed below, the MMRP only commits to mitigate construction and operational emissions to levels previously identified in the LAX Master Plan Final EIR. (SAIP Draft EIR, pp. IV-113 and 121.) The SAIP Draft EIR does not require any additional project-specific mitigation measures beyond those required by the MMRP. (SAIP Draft EIR, p. IV-121.) Hence, the emissions increases identified in the SAIP Draft EIR are not accounted for in the MMRP and remain largely unmitigated.

The comments below briefly summarize the considerable emissions increases identified in the SAIP Draft EIR and discuss the inadequacy of the MMRP to mitigate the additional emissions from the Project.

IA SAIP Emissions Are Considerably Higher Than Accounted For In LAX Master Plan

The SAIP Draft EIR construction emissions inventory includes a number of emission sources that were not accounted for in the LAX Master Plan emissions inventory, thereby considerably increasing the emissions attributable to the Project. Additional emissions estimated for the emissions inventory include fugitive dust PM10 emissions from concrete batching and rock crushing and evaporative VOC⁷ emissions from hot-mix asphalt paving, runway/taxiway striping, and construction painting (valve piping, appurtenances, and connection paint). (Ricondo 08/05⁸, spreadsheets "Concrete Batching," "Rock Crushing," and "Asphalt Painting," SAIP Draft EIR, p. IV-85.) In addition, peak emissions from wind erosion increased from 0.26 lb/day to 2.55 lb/day (i.e. by a factor of almost ten) due to the fact that the SAIP Draft EIR emissions inventory assumed a considerably larger acreage for stockpiles. (Ricondo 08/05, spreadsheet "Wind Erosion".) Yet the SAIP Draft EIR fails to include additional mitigation measures to reduce these additional emissions, instead relying on the mitigation measures identified in the MMRP.

⁷ The term VOC is used synonymously with the terms ROG and THC.

⁸ Excel Workbook "Construction Emissions_final (PM2.5).xls on CD-ROM, LAX SAIP DEIR, Records Request, Ricondo Files, August 22, 2005.

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For operational emissions, the SAIP Draft EIR admits that "the incremental change over the baseline condition used for the SAIP analysis is much greater than the change analyzed in the LAX Master Plan Final EIR." This results in considerably larger emissions than accounted for and mitigated in the LAX Master Plan and, consequently, "SAIP human health impacts are greater than previously reported for the LAX Master Plan." (SAIP Draft EIR, p. I-11.)

Several factors contribute to this increase in incremental emissions presented in the SAIP Draft EIR. Most importantly, the total number of aircraft operations in the baseline year assumed for SAIP Draft EIR, 2003, is considerably lower than previously assumed for the LAX Master Plan. This results in substantially increased incremental aircraft operations with implementation of the SAIP compared to the baseline and, consequently, substantially increased emissions and human health impacts attributable to the Project. Specifically, the Draft SAIP EIR states that "[t]he projected number of operations in 2005 with implementation of the SAIP is nearly 20 percent higher than the 2003 Baseline" and "roughly an order of magnitude greater than the incremental operations assumed in the Master Plan." (SAIP Draft EIR, pp. I-11 and I-1.) Second, a slightly different fleet mix contributed to an increase in Project emissions. Third, additional aircraft taxi and queue time due to the shift in aircraft operations from Runway 7R-25L to other runways contributed to an increase in emission. And finally, the use of a constant mixing height of 2,050 feet instead of the 1,800 feet used in the LAX Master Plan EIR resulted in an increase of climbout time for departing aircraft and, consequently, an increase in associated pollutant emissions. (SAIP Draft EIR, p. IV-116.)

IB SAIP Construction VOC Emissions Are Underestimated

The SAIP construction emissions inventory assumes emissions reductions of 14% NOx and 63% PM10 attributable to the use of PuriNOx alternative diesel fuel for diesel-fueled construction equipment and generators. (Ricondo 08/05, spreadsheet "Mitigation".) The emissions inventory does not address the fact that the use of PuriNOx fuel considerably increases VOC emissions and fails to adjust VOC emissions accordingly. A recent study found that the use of PuriNOx instead of CARB-certified diesel in heavy-duty diesel engines will increase VOC emissions on average by 87%. (CalEPA 03/04⁹, p. 4; relevant excerpts are

⁹ California Air Resources Board, Assessment of Emissions of Lubrizol's PuriNOx Water/Diesel Emulsion on Exhaust Emissions from Heavy-Duty Diesel Engines, March 2004; Attachment B to State of California, California Environmental Protection Agency, Multi-Media Assessment of Lubrizol's PuriNOx Water/Diesel Emulsion, March 2004; available at <http://www.arb.ca.gov/fuels/multi/altldslatb.pdf>, accessed September 29, 2005.

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attached as Exhibit A.) The U.S. EPA indicates that the use of PuriNOx on off-road diesel engines results in an increase of VOC emissions of 72.8% to 99.4% for engines up to 300 hp and 30% for engines >300 hp compared to CARB diesel fuel. (U.S. EPA 09/05¹⁰; attached as Exhibit B.) As a consequence, VOC emissions from diesel-fueled construction equipment and generators are underestimated.

LC SAIP Operational Emissions Are Underestimated

We previously commented on the fact that the LAX Master Plan considerably underestimated emissions associated with the operation of LAX. The SAIP Draft EIR perpetuates a number of these issues and our comments remain applicable. Rather than reiterating our previous comments in their entirety, they are hereby incorporated by reference and summarized below. The SAIP Draft EIR suffers from the same shortcomings.

I.C.1 Airport Capacity Is Underestimated

The emissions estimates presented by the SAIP Draft EIR and the LAX Master Plan EIR relied on a considerably underestimated airport capacity, as determined by an independent evaluation of the capacity of Alternative D by an expert in airport design and capacity. (Fox & Pless 2004, Comment V.A; Kanafani 2003¹¹ and 2004¹².)

I.C.2 Rollback Procedure Is Not Warranted

It is standard practice to use the maximum measured existing ambient concentration at the nearest monitoring station as the background in these calculations. The SAIP Draft EIR, as did the LAX Master Plan Final EIR, deviated substantially from the accepted approach and estimated future background concentrations using a linear rollback approach used in the 1997 AQMP to determine if the proposed region-wide controls would bring the basin into compliance with standards. (SAIP Draft EIR, p. IV-100; LAX Master Plan Final

¹⁰ U.S. Environmental Protection Agency, Retrofit Technologies from Lubrizol Corporation, August 5, 2004; available at <http://www.epa.gov/otaq/retrofit/techlist-lubrizol.htm>, accessed September 29, 2005.

¹¹ A. Kanafani, Capacity Analysis of Aircraft Gate Positions, Los Angeles International Airport, Master Plan Alternative D; submitted as Attachment 7 to November 3, 2003 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger.

¹² A. Kanafani, Comments on the LAX Master Plan Final EIS/EIR Response to Comments; submitted as Exhibit A to December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger.

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or 7 percent, of incidents of community noise complaints with the use of reverse thrust.¹⁴ This suggests that reverse thrust use at LAX is not minimal.

Perplexingly, LAX does not follow FAA's official guidance on this matter. The FAA recognizes the importance of including reverse thrust operations in air quality assessments in its Air Quality Handbook,¹⁵ which provides guidance, procedures and methodologies for use in carrying out air quality assessments for proposed Federal actions that are required for compliance with the National Environmental Policy Act ("NEPA"), the federal Clean Air Act ("CAA") and other environment-related regulations and directives.

The FAA's Air Quality Handbook unambiguously states that "[r]everse thrust is now considered by EPA as an official mode and should be included in calculation procedures..." [Emphasis added.] It continues "[s]ince reverse thrust engine operating conditions are similar to takeoff, time spent in reverse thrust should be combined with takeoff mode emission indices and fuel flow as a means of accounting for reverse thrust mode emissions. Aircraft reverse thrust typically is applied for 15-20 seconds¹⁶ on landing." It explicitly specifies that "[t]akeoff emission indices and fuel flow should be used as inputs for calculating emissions from reverse thrust (as well as takeoff) mode." (Air Quality Handbook, Appendix D¹⁷, pp. D-5/6.) Further, reverse thrust operations were recently included in the EDMS modeling for two other airports in the South Coast Air Basin—John Wayne and El Toro—by adding 15 seconds to the total takeoff time. (MCAS El Toro Final EIR,¹⁸ p. 4.5-26.)

Of the four phases of the aircraft landing/takeoff operations ("LTO") cycle typically included in aircraft emissions modeling, the greatest NOx emissions are attributable to the takeoff mode. Thus, increasing the amount of

¹⁴ Los Angeles World Airports, LAX, Aircraft Noise Community Response Report, May 2004.

¹⁵ Federal Aviation Administration, Air Quality Procedures for Civilian Airports and Air Force Bases, April 1997.

¹⁶ A recent study on reverse thrust usage at Bergstrom International Airport in Austin, Texas, demonstrated an average TIM for reverse thrust during landing of 16.0 seconds. (Rice & Walton 2003.)

¹⁷ Federal Aviation Administration, Air Quality Procedures for Civilian Airports and Air Force Bases, Appendix D, Aircraft Emission Methodology, April 1997.

¹⁸ County of Orange, Final Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport, SCH No. 98101053, August 2001.

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EIR, p. 4-665.) This approach assumes that changes in emissions will affect ambient air concentrations proportionally. The use of this approach resulted in very substantial reductions in future background concentrations, a factor of more than two for CO and nearly two for NOx.

We previously commented on the inappropriate use of the linear rollback approach to estimate background concentrations. (Fox 2001, Comment III.A; Fox & Pless 2004, Comment IV.D.) We herewith incorporate these comments by reference.

I.C.3 Reverse Thrust Emissions Are Inappropriately Excluded

The SAIP Draft EIR estimates emission rates for four aircraft operational modes: taxi/idle, takeoff, climbout, and approach. (SAIP Draft EIR, p. IV-92 and Appx. K, p. K-12.) The SAIP Draft EIR omits emissions associated with aircraft reverse thrust operations from its air quality analysis and has, therefore, underestimated operational emissions.

Engine thrust reversal is typically used after aircraft landing to slow the aircraft to taxi speed and occasionally to "power-back" away from a boarding bridge (a practice not employed at LAX because of the lack of space between terminal buildings.) Reverse thrust describes the practice of setting the engines to full power in the reverse direction and is essentially a high-thrust operating mode. High-thrust operating modes, such as aircraft takeoff, generate very high NOx emissions per unit time relative to other operating modes such as aircraft taxi. While the time in mode ("TIM") for reverse thrust operations is, in fact short, approximately 15 to 20 seconds, it can nevertheless be responsible for an additional 15 percent or more of the on-airport NOx emissions. (Rice & Walton 2003.¹³)

The LAX Master Plan Final EIR claimed that "since runway lengths at LAX are able to accommodate even the largest aircraft, use of reverse thrust would be expected to be minimal." (LAX Master Plan Final EIR, RTC AF00001-21.) LAX ignores that reverse thrust is not only employed by large aircraft to land on short runways but also to reduce brake wear and more often during wet runway conditions. In May 2004, LAX itself explained 6 out of 84,

¹³ Colin Rice and C. Michael Walton, Restricting the Use of Reverse Thrust as an Emissions Reduction Strategy, Research Report SWUTC/03/167231-1, Southwest Regional University, Center for Transportation Research, University of Texas, Austin, TX, revised July 2003.

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time in takeoff mode will considerably increase NOx emissions. (NESCAUM¹⁹, p. II-13.) Review of the LAX Master Plan Final EIR's aircraft emissions confirms that more than 50 percent of NOx emissions from turbofan engines, which are by far the most-used type of engine for aviation use, are due to takeoff. (LAX Master Plan Final EIR, Appx. F-B, Attachment 4.) Aircraft NOx emissions are directly proportional to the TIM for each LTO. Consequently, any increase in the takeoff TIM results in an increase NOx emissions attributable to takeoff and reverse thrust. Depending on the actual average TIM for reverse thrust at LAX, resulting NOx emissions could be considerable, on the order of thousands of tons per year.

Since the SAIP Draft EIR, like the LAX Master Plan before, does not propose any measures restricting reverse thrust operations at LAX, there is no supportable rationale for excluding reverse thrust emissions from the analysis.

I.C.4 Secondary Emissions From Electricity Generation Are Not Included

The SAIP Draft EIR, like the LAX Master Plan EIR before, failed to include secondary emissions from electricity generation in its emission estimates and ambient air quality modeling, failed to address impacts from increased electricity demand due to the Project, and failed to analyze the increased electricity demand due to the proposed air quality mitigation program as required by CEQA. We previously commented that as a result, operational emissions attributable to the Project were considerably underestimated. (Fox 2001, Comment I.C; Fox & Pless 2004, Comment V.F.) We herewith incorporate these comments by reference.

I.C.5 Urban Heat Island Effect Is Not Included

The SAIP Draft EIR fails to analyze the urban heat island effect. Previously, in response to our comments, the Final EIR claimed that because the effect is regional and any increase in "black surfaces" at LAX would be minimal with respect to the entire LAX urban area, the contribution of LAX to the urban heat island effect would be effectively zero. (LAX Master Plan Final EIR, Response to Comment AL00033-330.) We disagree and refer to our previous comments. (Fox & Pless, Comment V.E.)

¹⁹ Northeast States for Coordinated Air Use Management ("NESCAUM") and Center for Clean Air Policy, Controlling Airport-related Air Pollution, June 2003.

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I.D Mitigation Is Inadequate

The SAIP Draft EIR does not require any additional project-specific mitigation measures emissions beyond those required by the MMRP and relies solely on the adequacy of the MMRP. (SAIP Draft EIR, p. IV-121.) My colleague Dr. Phyllis Fox and I previously commented on the inadequacy of the MMRP whose latest revision (September 2004) does little to alleviate the problems we had identified. Rather than reiterating our detailed past comments in their entirety in this comment letter, they are herewith incorporated by reference. (Fox 2001, Comment IV; Fox & Pless 2003, Comment V; Fox & Pless 2004, Comment VI.) The comments below merely summarize and highlight the major problems associated with LAWA's proposed mitigation program.

I.D.1 MMRP Is Inadequate To Mitigate LAX Master Plan Emissions Let Alone Increased Emissions From The SAIP

The MMRP states that "[a]t a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those [mitigated operational and construction emissions] identified in Table AD5-8." (MMRP, p. 36.) As we pointed out in our previous comments on the LAX Master Plan, the emission levels presented in Table AD-5-8 were based on considerably underestimated emissions for Alternative D. Consequently, actual emissions will be much larger and not adequately mitigated by the MMRP. (See Fox & Pless 11/04, Comment VI.B.) The fact that the MMRP will not be able to achieve the proposed emission limits in Table AD5-8 is now supported by the SAIP Draft EIR's admission to considerably higher emissions than those accounted for in the LAX Master Plan and the MMRP.

The SAIP is only the first project in a long list to be implemented under the Master Plan, and by no means one of the largest. It can be safely assumed that the analysis of future LAX Master Plan components will also result in higher emissions than accounted for in the LAX Master Plan, particularly since they will also rely on baseline years with lower activity than previously assumed in the LAX Master Plan. (See Comment I.A.) Therefore, the MMRP, and by extension, the mitigation for the SAIP Draft EIR, are inadequate because they only intend to mitigate emissions to the level specified in the LAX Master Plan.

I.D.2 No Accounting Of Emissions Attributable To LAX Master Plan Project Components

It remains entirely unclear how the MMRP intends to verify that emissions from all the various project components of the LAX Master Plan, including the SAIP, are, in fact, reduced to the specified level. Nowhere does the

MMRP contain a provision to keep track of the emissions from its various project components and to determine whether they would together exceed emissions levels specified in Table AD5-8; nor does it contain a provision specifying the course of action to be taken if these specified emission levels can not be met, which is very likely.

I.D.3 Mitigation Plan Will Be Prepared Outside of Public Review

The mitigated emissions inventories presented in the SAIP Draft EIR for Project construction and operations are based on the assumption that all four air quality mitigation measures identified in the MMRP would be in place at the time of construction of the Project, i.e. in 2005. (SAIP Draft EIR, pp. IV-113 and IV-121.) Specifically, mitigation measure MM-AQ-1 of the MMRP specifies that "LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan Mitigation Plan for Air Quality (LAX MP-MPAQ) ... in consultation with the FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD)." The SAIP Draft EIR further requires that "[b]asic LAX-MP-MPAQ and the Construction-Related components [are] to be completed prior to issuance of grading or demolition permit for first Master Plan project." (MMRP, p. 36.) The SAIP Draft EIR indicates that Project construction is planned for April 2005 through March 2006. (SAIP Draft EIR, p. IV-90.) Clearly, construction is planned to commence as soon as the Project EIR is finalized and approved, yet LAWA has yet to provide the public with even a draft version of the LAX-MP-MPAQ. It appears that this mitigation plan will be prepared fully beyond and outside of public review. This is entirely unacceptable, particularly for a project-level CEQA review. A reviewer must be able to review the adequacy of mitigation program to determine whether all feasible mitigation was required.

I.D.4 Mitigation Measures Are Not Enforceable

Several of the mitigation measures included in the MMRP, upon which the SAIP Draft EIR relies for its emissions estimates, are not enforceable as proposed. For example, most mitigation measures fail to include specific performance standards that would allow them to be implemented, let alone allow their effectiveness to be evaluated. None of the proposed measures quantify the number of units that would be involved, or the time frame over which the action would occur. Similarly none of these measures describe the proposed mitigation with enough specificity to allow it to be implemented, let alone reviewed by the public or enforced if eventually adopted. Presumably, these performance measures will be part of the LAX-MP-MPAQ, however, as

discussed above in Comment I.C.3, the public has never been presented with a detailed plan.

For example, one mitigation measure requires LAWA to "[s]pecify a combination of electricity from power poles and portable diesel- or gasoline-fueled generators using 'clean burning diesel' fuel and exhaust emission controls." Yet this specification is nowhere to be found; neither is any kind of performance measure or resulting emission reduction efficiency. Other mitigation measures simply require mitigation "[t]o the extent feasible" without identifying what constitutes this feasibility. (MMRP, p. 41, MM-AQ-2.)

To be enforceable, the mitigation measures must be quantifiable. Thus, the description of the measure must specifically state what infrastructure would be provided, when it would be provided, and how compliance would be verified. However, the MMRP merely cites "annual progress reports, summarizing the nature and effectiveness of air quality mitigation measures that were implemented during the year" as the only action indicating compliance.

I.D.5 Additional Feasible Mitigation Exists

CEQA requires that a lead agency implement all feasible mitigation to reduce significant adverse impacts. LAWA admits to significant and unavoidable impacts from implementation of the LAX Master Plan and the SAIP, yet fails to require all feasible mitigation in its proposed MMRP. Because of the significant adverse impacts of the SAIP and future project components of the LAX Master Plan, all feasible mitigation must be required.

Offsets

We previously commented on the opportunities to offset emissions outside of LAX, e.g., retrofitting heaters, boilers, furnaces, generators, and turbines in the South Coast Air Basin ("SoCAB"), or acquiring RECLAIM offsets. (Fox 2001, Comment IV.F; Fox & Pless 2004, Comment VI.C.) LAWA declined to consider the retrofitting off-airport combustion sources, arguing that emission reductions elsewhere would not mitigate emissions from LAX and that the FAA has no legal authority over equipment that does not belong to it. (Final EIR, RTC AL00033-336.) We disagree with this reasoning. The Final EIR does not address the option of acquiring RECLAIM offsets.

For example, we suggested requiring emission offsets if ROG or NOx emissions exceed 6.0 tons/quarter based on a recommendation by the San Luis Obispo Air Pollution Control District to mitigate the enormous impacts

associated with implementation of the Project. The mitigated emissions of the SAIP Project alone by far exceed these thresholds (peak Quarter 3: 20 ton/quarter ROG and 74 ton/quarter NOx. (Ricondo 08/05, spreadsheet "Emissions Summary.") Yet LAWA rejected our suggestion as "facially infeasible" and continues that it "will be reconsidered if information becomes available demonstrating feasibility." LAWA further insisted that a regulatory limit from outside SCAQMD jurisdiction does not apply." (CDM 12/04²⁰, p. 26.) This justification for not using offsets is absurd. Offsets work just as well in the South Coast Air Basin as they work elsewhere. In fact, the SCAQMD was the first agency to implement an emissions trading program based on offsets with RECLAIM in 1994, which has been very successful in reducing basin-wide emissions. Offsets are feasible and frequently required as mitigation for large projects.

Offsetting project emissions with retrofits elsewhere is frequently required for large projects, where emission reductions cannot be achieved on site, particularly for projects with a considerable regional impact as is the case here. For example, the California Energy Commission ("CEC"), which follows a CEQA-equivalent process to license power plants, frequently requires offset mitigation. See, for example, the mitigation program required for the proposed Riverside Energy Resources Center ("RERC"), which requires as a Condition of Exemption ("CoE") that a specified amount of operational emission offsets be developed through the following measures:

1. The retrofit of emission controls on diesel powered school buses within the Riverside School District or directly adjacent school districts.
2. The retrofit of emission controls on diesel powered equipment under the direct or contracted control of the City of Riverside.
3. The reduction or elimination of other combustion sources within the city boundaries of the City of Riverside as approved by the CPM [Construction Project Manager].
4. Any remaining emission reductions not provided as specified above from their voluntary surrender and retirement of emission reduction credits or RECLAIM trade credits banked with the South Coast Air Quality Management District and approved by the CPM. (RERC Final Initial Study²¹, CoE AQ-1.)

²⁰ Inventory of Proposed and Potential Air Quality Mitigation Measures for Lax Master Plan Alternative D, Attachment to Memorandum from Anthony Skidmore, CDM, to Herb Glasgow, Los Angeles World Airports, Inventory of Air Quality Mitigation Measures Considered in Conjunction with the LAX Master Plan EIS/EIR, December 6, 2004.

²¹ California Energy Commission, Riverside Energy Resources Center, Final Initial Study, Application for Small Power Plant Exemption, 04-SPPE-01, August 2004; <http://www.energy.ca.gov/sitingcases/riverside/documents/index.html>.

Other feasible mitigation measures

LAWA dismisses a large number of proposed mitigation measures because they "[m]ay be duplicative of and/or obviated by the implementation of ... components of MMAQ-2" without any further explanation. (CDM 12/04, pp. 7-11.) Review of MMAQ-2 shows that most of the such-dismissed mitigation measures are neither part of MMAQ-2 nor obviated by implementation of MMAQ-2.

Further, there are other feasible mitigation measures not contained in the list of mitigation measures evaluated by LAWLA such as the use of electric welders to avoid emissions from gas or diesel welders in portions of the project sites where electricity is available. This measure is required for the SCAQMD's RECLAIM program, as well as for other programs.

II. THE SAIP DRAFT EIR FAILS TO ADEQUATELY DISCLOSE IMPACTS AND IS INCONSISTENT AND INCOMPLETE

A Draft EIR is first and foremost a public information document, which should "facilitate both public input and the decisionmaking process." (*Russian Hill Improvement Assoc. v. Board of Permit Appeals*, 44 Cal. App. 3d 158, 168 (1975).) Here, the SAIP Draft EIR obstructs this basic requirement of CEQA by being not transparent, internally inconsistent, and incomplete, thus leaving the reviewer guessing rather than being able to rely on the analysis presented.

II.A The SAIP Draft EIR Is Not Transparent And Therefore Fails To Adequately Disclose Impacts

The SAIP Draft EIR, beyond mentioning that incremental aircraft operations are considerably higher than assumed in the LAX Master Plan for this component, fails to provide a comprehensive discussion of this fact and its implications. The SAIP Draft EIR contains only a few cryptic statements *viz.* "the incremental impacts of the SAIP appear higher than the increment for Alternative D analyzed in the Final EIR" or "these significance conclusions [regarding air quality] are consistent with those in the Master Plan Final EIR. (SAIP Draft EIR, pp. IV-142 and IV-121.) However, nowhere does the Draft EIR provide a direct comparison of its air quality impacts and human health risks with the results determined by the LAX Master Plan for this project component. This leaves the reviewer guessing just how much larger the incremental impacts for this project component are than previously analyzed.

Further, the SAIP Draft EIR frequently explains that its emissions inventory was based on the assumption that certain air quality mitigation

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measures identified in the MMRP would be in place at the time of construction and that therefore its emissions inventories represent "mitigated emissions." (See, e.g., SAIP Draft EIR, p. IV-2.) The SAIP Draft EIR consequently specified potential emissions reduction efficiencies for these mitigation measures (Table 4.3-8), yet it failed to discuss how these potential emissions reductions were determined. Nor does the SAIP Draft EIR provide a justification for using the upper end of the range of potential emission reductions for its emissions inventory. For example, the Draft EIR assumed a 63% reduction in fugitive dust PM10 and PM2.5 based on the use of soil stabilizers. The SCAQMD CEQA Guidelines, for example, specify a range of emission reduction efficiency of 30% to a maximum 65% for this mitigation measure. (SCAQMD CEQA Guidelines²², p. 11-15.)

II.B Construction Emissions Inventory Is Inconsistent

The construction emissions inventory assumes varying silt contents to estimate fugitive dust emissions from unpaved roads/compactor and miscellaneous (7.5%) and wind erosion of storage piles (6.9%). (Ricondo 08/05, spreadsheets "Fugitive Dust" and "Wind Erosion.") The silt content of 6.9% for calculation of storage pile wind erosion is specified as an ASTM Test Method default. Presumably, the silt content of 7.5% is based on empirical results and should therefore be used for the entire site. Fugitive dust emissions from wind erosion may therefore be underestimated and should be recalculated with the appropriate silt content.

II.C Human Health Risk Assessment Is Inconsistent And Incomplete

The human health risk assessment presented in the SAIP Draft EIR is equally inconsistent. The SAIP Draft EIR states that material safety data sheets ("MSDS") were used develop air speciation profiles for TAC VOC emissions from asphalt paving and architectural coatings. (The cited MSDS are nowhere to be found in the SAIP Draft EIR.) Attachment 1 to Appendix L to the SAIP Draft EIR provides a summary for construction TAC VOC emissions of 5.4 lb/day from asphalt paving, 3,628 lb/day from pavement marking paint evaporation, and 7.11 lb/day from construction painting (valve piping, appurtenances, and connection paint) for a total of 3,640.51 lb/day or 1.82 ton/day. (SAIP Draft EIR, Appx. L, Tables L.1-5 through L.1-7.) Yet the SAIP Draft EIR fails to include any of these emissions in its summary tables for annual and peak daily TAC VOC emissions from construction and only includes emissions from combustion exhaust. For example, the Draft EIR shows total peak daily construction TAC

²² South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993.

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VOC emissions of only 171.79 lb/day or 0.086 ton/day. (Draft EIR, Appx. L, Tables L-3 and L-4.)

III. REMOVAL OF LAX MASTER PLAN PROJECT COMPONENTS MAY AFFECT AMBIENT AIR QUALITY AND HUMAN HEALTH RISK IMPACT ANALYSES

The Los Angeles City Council approved a so-called "Consensus Plan," which identified certain LAX Master Plan project components that, in all likelihood, will never be built. As the City of El Segundo has previously noted, the Consensus Plan may have serious consequences on the air quality impacts that were neither discussed nor analyzed in the SAIP Draft EIR.²³

For example, one of these project components that is unlikely ever to proceed is the northern runway complex reconfiguration. As a result, more and heavier aircraft will probably use the southern runway configuration than anticipated and analyzed in the SAIP Draft EIR. Shifting more emissions towards the south side of the airport may considerably affect the ambient air quality dispersion modeling and lead to different conclusions regarding ambient air quality and human health impacts.

IV. CONCLUSION

The Draft EIR fails to satisfy the requirements of CEQA for a number of reasons. The SAIP Draft EIR is not transparent, is internally inconsistent, and does not adequately disclose the impacts associated with implementation of the Project. Most importantly, however, the significant impacts from implementation of the SAIP are not adequately mitigated. The proposed mitigation program is entirely inadequate to mitigate the enormous adverse impacts from construction and operation of the Project. Additional feasible mitigation exists and should be included in the proposed MMRP and required for the SAIP Draft EIR. Further, the mitigation plan must be made available for public review and several proposed mitigation measures must be revised to be fully enforceable. Finally, the potential removal of LAX Master Plan components that were not analyzed in the SAIP Draft EIR may considerably affect ambient air quality and human health risk analyses.

²³ See, e.g., December 1, 2004 Comments submitted on behalf of the City of El Segundo by Shute, Mihaly & Weinberger at pp. 8-9.

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In sum, LAWLA concludes that impacts from construction and operation of the Project are significant and unavoidable without making a genuine effort to reduce the Project's enormous adverse impacts on air quality and human health. The shortcomings of the SAIP Draft EIR illustrate the inadequacy of the LAX Master Plan environmental review process and the inadequacy of the MMRP. The SAIP Draft EIR should be revised to address the above comments and be recirculated for public review.

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State of California
California Air Resources Board

**Assessment of Emissions of Lubrizol's PuriNOx
Water/Diesel Emulsion on Exhaust Emissions
from Heavy-Duty Diesel Engines**

Date of Release: March 2004

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**Assessment of Emissions of Lubrizol's PuriNOx Water/Diesel Emulsion on
Exhaust Emissions from Heavy-Duty Diesel Engines**

I. Summary, Conclusions, and Recommendations

A. Summary

The Air Resources Board (ARB/Board) staff have completed an air quality assessment on Lubrizol's PuriNOx water emulsified diesel fuel. Two versions of the fuel were evaluated, PuriNOx generation 1 (Gen1) and PuriNOx generation 2 (Gen2) water emulsified diesel fuels. Staff's evaluation assesses the effect PuriNOx fuel has on emissions from heavy-duty diesel engines based on a relative comparison between diesel fuel complying with the ARB requirements (CARB diesel) and PuriNOx fuel. The evaluation includes an assessment of the impact of using PuriNOx fuel on criteria pollutants and toxic air contaminants and ozone precursors. To estimate PuriNOx emission impacts for the years, 2002 and 2010, staff used a conservative assessment that 25 percent of the centrally fueled fleet (9 percent of all on-road diesel fueled vehicles) would use PuriNOx. This assumption is significantly greater than the fuel use rate than what Lubrizol predicts will be used in California in 2010.

1. Criteria Pollutants

Emission studies that were performed for the United States Environmental Protection Agency (U.S. EPA), the ARB, and a consultant study by Air Improvement Resource (AIR) were submitted for evaluation. Emissions data were obtained from a wide range of conditions including engine type and model year, on and off road applications, and with and without aftertreatment emission controls. On average, emissions of oxides of nitrogen (NOx) and particulate matter (PM) were reduced by 14 percent and 58 percent, respectively. Hydrocarbon emissions increased by 87 percent. When evaluating the emission effects of PuriNOx fuel on an absolute basis, mass emission reductions for NOx are greater than mass emission increases of hydrocarbons. For example, comparing Gen1 to CARB diesel in a 1991 DC series 60 engine should have a mass reduction for NOx of 0.6 grams per brakehorse power hour (g/bhp-hr) and only a 0.06 g/bhp-hr increase for hydrocarbons.

2. Toxic Emissions

Staff's evaluation of toxic emissions is based mainly on two studies: the U.S. EPA Tier 1 and the CARB verification for Gen1 (SWRI report (1)). In addition to these studies, data from eight other studies were also used for evaluating diesel PM emissions.

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a) Particulate Matter Toxic Emissions

The ARB identified diesel PM as a toxic air contaminant in 1998, and determined that diesel PM has been determined to account for about 70 percent of the toxic risk from all identified toxic air contaminants. The evaluation of the effect that PuriNOx Gen1 has on PM emissions from diesel engines is based on a number of studies, including the U.S. EPA's draft technical report. The U.S. EPA draft technical report (2) evaluated PM from the use of Gen1 using available emissions data and found that the use of PuriNOx fuel significantly reduces PM emissions on average by 58 percent from on-road conventional diesel fuel. The U.S. EPA draft technical report also indicated that PM emissions from off-road engines were on average reduced by 28 percent, although the result is based on the test of one engine of less than 100 hp. A study that was not included in the U.S. EPA draft technical report was the study conducted for the U.S. EPA Tier 1 Health Effects program. The EPA Tier 1 study using a 1999 DDC series 60 engine concluded PM was reduced by 33 percent.

Another study was conducted for the ARB Diesel Emission Control Strategy Verification Procedure. For the verification procedure a 1991 DDC series 60 was used and PM emissions were determined to be reduced by 63 percent from the use of PuriNOx.

Gen2 PM emission reductions were reported in the South West Research Institute (SWRI) study by Spreen (3) where a 1999 DDC series 60 engine showed a PM reduction of 47 percent. For the same engine, Gen1 showed a PM reduction of 33 percent.

Although there is a limited data set for Gen 2, Gen2 PM emission reductions were greater than Gen1 when tested on the same engine, therefore the average 58 PM reduction appears to be a conservative estimate for both Gen1 and Gen 2 fuels.

b) Other Toxic Emissions

As discussed above, the use of PuriNOx reduces diesel PM emissions and represents a significant reduction (average 58 percent) of the PM mass from diesel exhaust. However, increases in emissions of some toxic species such as formaldehyde, acetaldehyde, BTEX, 1,3-butadiene, and some polycyclic aromatic hydrocarbons (PAHs) have also been reported. Although the increase of these toxics are of concern, the magnitude of their mass emissions is small compared to the decrease in mass emissions of PM. After PM, formaldehyde and acetaldehyde are the toxics with the next highest emission rates but their cancer unit risk factors are approximately two orders of magnitude lower than diesel PM. There have been reported increases in 1,3-butadiene and some PAHs that have cancer unit risk factors

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of similar magnitude as diesel PM, but their mass emission rates were two to six orders of magnitude lower than PM mass emission rates. The Office of Environmental Health Hazard Assessment staff have evaluated the effect of these toxic emission increases and concluded that the absolute amount of these toxics in diesel exhaust is small and does not appear to be a significant cancer risk compared to diesel PM emissions.

3. Ozone Precursors

The use of PuriNOx fuel as compared to CARB diesel fuel decreases NOx emissions by about 14 percent but increases reactive organic gas (ROG) emissions by 87 percent. However, PuriNOx emissions of ROG are about 29 percent of the NOx emissions in diesel exhaust, that is, for each ton ROG increased, NOx will be reduced by 3.4 tons. Currently, the California State Implementation Plan (SIP) consists of a number of planned control strategies that target ROG and NOx emissions. In implementing the SIP, these strategies are balanced to result in an overall reduction in ozone levels. That is if PuriNOx is to be used as an ozone control strategy, any increases in ROG will be addressed.

4. Emission Impacts for the South Coast Air Basin

The California emissions inventory and the EMFAC model were used to estimate the impact that PuriNOx could have on emissions in the South Coast Air Basin where PuriNOx is currently used in limited applications. Emissions estimates were made for NOx, PM, reactive organic gases ROG, 1,3-butadiene, formaldehyde, acetaldehyde, benzene, ethyl benzene, and naphthalene. Emissions estimates were calculated for 2002 and 2010. Emission estimates were based on the conservative case where staff assumed that 25 percent of the centrally fueled vehicles would use PuriNOx. This is a factor of nine higher than what is projected by Lubrizol in 2012.

For the South Coast Air Basin in 2010, the use of PuriNOx in 25 percent of the centrally fueled vehicles would reduce NOx from on-road heavy-duty diesel vehicles by 2.4 tons/day and PM10 by 0.22 tons/day. This corresponds to a 1.1 percent reduction of NOx and a 6 percent reduction of the PM from on-road heavy-duty diesel engines or about 0.3 percent and 0.07 percent, respectively, from all sources. ROG would increase by 0.7 tons/day, which is 9 percent of the ROG from on road heavy-duty diesel engines or about 0.12 percent of the ROG from all sources. For 1,3-butadiene, benzene, ethyl benzene, and toluene, formaldehyde, and acetaldehyde, increases from 0.0002-0.0003 tons/day may occur. For formaldehyde, the toxic with the highest emission rate next to diesel PM10 emissions would increase by 0.1 ton/day in 2010 but has a risk of about two orders of magnitude lower than PM.



U.S. Environmental Protection Agency
Voluntary Diesel Retrofit Program

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Retrofit Technologies from Lubrizol Corporation

Lubrizol: PuriNOx (summer blend - fuel water emulsion)

Technology	Engine Model/Application	Reductions (%)			
		PM	CO	NOx	HC
PuriNOx	On-highway: Light-heavy (> 8,500 and < 19,500 GVWR)	55.6	13.4	9.0	-120.2
	On-highway: Medium-heavy (>= 9,500 and <= 33,000 GVWR)	51.1	-25.2	10.2	-119.1
	On-highway: Heavy-heavy (> 33,000 GVWR)	58.2	33.3	12.9	-87.8
	On-highway: Exhaust Gas Recirculation (EGR)	55.6	13.4	10.2	-103.2
	Non-road: 0 - 100 hp	23.3	-34.7	19.3	-99.4
	Non-road: 100 - 175 hp	16.8	13.4	17.0	-80.1
	Non-road: 175 - 300 hp	16.8	13.4	18.8	-72.8
	Non-road: > 300 hp	16.8	13.4	20.2	-30.0

* - Baseline assumes an unmodified engine running on regular 2D (<500 ppm sulfur) fuel.

NOTES:

- This verification applies to summer blend PuriNOx only.
- A negative value in the table above indicates an increase in that pollutant.
- Summer blend PuriNOx cannot be used in ambient temperatures below 20 degrees F.
- Under proper storage conditions PuriNOx has a storage life of 12 months.
- End use applications must be tolerant of up to a 20% power loss when operating at maximum engine horsepower.
- The typical end user will experience a 15% increase in fuel consumption for equipment operating on PuriNOx fuel.

The following operating criteria are required to be met when PuriNOx is used:

1. PuriNOx is not compatible with optical or conductivity-type fuel sensors.
 2. Engines operation on PuriNOx must be run for at least 15 minutes every 30 days.
 3. End use applications must be tolerant of up to a 20% power loss when operating at maximum engine horsepower.
 4. Seals, gaskets, and materials used in equipment or engine fuel systems that are not compatible with diesel fuel are also not compatible with PuriNOx.
 5. The engine fuel filter must be changed after the first 24 hours of operation on PuriNOx.
 6. PuriNOx is compatible with most typical diesel fuel filters. PuriNOx is not compatible with water absorbing water separators, water absorbing fuel filters, or centrifugal style water separators.
- [Diesel Retrofit: Glossary | Site Map]

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Last updated on Thursday, August 5th, 2004
URL: http://www.epa.gov/otaq/retrofit/techlist-lubrizol.htm

Petra Pless, D. Env.
Environmental Scientist/Engineer

540 Kenyon Ave.
 Kensington, CA 94704
 office: (510) 558-9132
 fax: (775) 254-5849
 ppless@earthlink.net

Dr. Pless has over 10 years of experience in environmental engineering and science conducting and managing interdisciplinary environmental research projects and preparing and reviewing environmental permits and other documents for U.S. and European stakeholder groups. This broad-based experience includes air quality and pollution control; water quality, water supply, and water pollution control; noise studies; CEQA review; industrial ecology and risk assessment; and development and use of a wide range of environmental software.

EDUCATION

Doctorate in Environmental Science and Engineering, University of California, Los Angeles, 2001
 M.S. Biology (Botany/Ecology), Technical University of Munich, Germany, 1991

PROFESSIONAL HISTORY

Leson Environmental Consulting, Berkeley, CA, Environmental Scientist, 1997-Present
 University of California Los Angeles, Graduate Research Assistant/Teaching Assistant, 1994-96
 ECON Research and Development, Environmental Scientist, Ingelheim, Germany, 1992-93
 Biocontrol, Environmental Projects Manager, Ingelheim, Germany, 1991-92

REPRESENTATIVE EXPERIENCE

Air Quality and Pollution Control

Experience in all aspects of air quality and pollution control including attainment and non-attainment new source review, PSD and Title V permitting; BACT, LAER, RACT, BARCT, and MACT analyses; technology evaluations and cost-effectiveness analyses; criteria and toxic pollutant emission inventories; emission offsets; ambient and source monitoring. Some typical projects include:

- For an Indiana steel mill, evaluated technology to control NOx and CO emissions from fired sources, including electric arc furnaces and reheat furnaces, to establish BACT. This required a comprehensive review of U.S. and European operating experience. The lowest emission levels were being achieved by steel mills using SCR and SNCR in Sweden and The Netherlands.

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- For a California petroleum coke calciner, evaluated technology to control NOx, CO, VOCs, and PM10 emissions from the kiln and pyroscrubbers to establish BACT and LAER. This required a review of state and federal clearinghouses, working with regulatory agencies and pollution control vendors, and obtaining and reviewing permits and emissions data from other similar facilities. The best-controlled facilities were located in the SCAQMD.
- For a Kentucky coal-fired power plant, identified the lowest NOx levels that had been permitted and demonstrated in practice to establish BACT. Reviewed operating experience of European, Japanese, and U.S. facilities and evaluated continuous emission monitoring data. The lowest NOx levels had been permitted and achieved in Denmark and in the U.S. in Texas and New York.
- In support of efforts to lower the CO BACT level for power plant emissions, evaluated the contribution of CO emissions to tropospheric ozone formation and coauthored report on same.
- Critically reviewed and prepared technical comments on draft PSD permits for several natural-gas fired power plants in California, Indiana, and Oregon. The comments addressed emission inventories, BACT, case-by-case MACT, compliance monitoring, cost-effectiveness analyses, and enforceability of permit limits.
- For a California refinery, evaluated technology to control NOx and CO emissions from CO Boilers to establish RACT/BARCT to comply with BAAQMD Rule 9-10. This required a review of BACT/RACT/LAER clearinghouses, working with regulatory agencies across the U.S., and reviewing federal and state regulations and State Implementation Plans. The lowest levels were required in a SCAQMD rule and in the Texas SIP.
- In conjunction with the permitting of several residential and commercial developments, conducted studies to determine baseline concentrations of diesel exhaust using an aethalometer.
- For several California refineries, evaluated compliance of fired sources with BAAQMD Rule 9-10. This required evaluation and review of hundreds of source tests to determine if refinery-wide emission caps and compliance monitoring provisions were being met.
- Critically reviewed and prepared technical comments on draft Title V permits for several refineries and other industrial facilities in California.
- Critically reviewed and prepared technical comments on the air quality, biology, noise, and public health sections of CEQA documents (EIRs, Initial Studies, Mitigated Negative Declarations) for several commercial, residential, and industrial projects in California.
- In support of several federal lawsuits filed under the Clean Air Act, prepared cost-effectiveness analyses for SCR and oxidation catalysts for simple cycle gas turbines and evaluated opacity data.
- Provided comprehensive environmental and regulatory services for an industrial laundry chain. Facilitated permit process with the South Coast Air Quality Management District. Developed test protocol for VOC emissions, conducted field tests, and used mass balance methods to estimate emissions. Reduced disposal costs for solvent-

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containing waste streams by identifying alternative disposal options. Performed health risk screening for air toxics emissions. Provided permitting support with SCAQMD. Renegotiated sewer surcharges with wastewater treatment plant. Identified new customers for shop-towel recycling services.

- Designed computer model to predict performance of biological air pollution control as part of a collaborative technology assessment project, co-funded by several major chemical manufacturers.
- Experience using a wide range of environmental software, including air dispersion models, air emission software, and developing applications using database programs and GIS.

Water Quality and Pollution Control

Experience in all phases of water quality and pollution control, including surface water and ground water quality and supply studies, evaluating water and wastewater treatment technologies, and identifying, evaluating, and implementing pollution controls. Some typical projects include:

- For a homeowner's association, reviewed a CA Coastal Commission staff report on the replacement of 12,000 linear feet of wooden bulkhead with PVC sheet pile armor. Researched and evaluated impact of proposed project on lagoon water quality, including sediment resuspension, leaching of additives and sealants, and long-term stability. Summarized results in letter report. This work is ongoing.
- Evaluated impact of on-shore oil drilling activities on large-scale coastal erosion in Nigeria. This work is ongoing.
- For a 500-MW combined-cycle power plant, prepared a study to evaluate the impact of proposed groundwater pumping on local water quality and supply, including a nearby stream, springs, and a spring-fed waterfall. The study was docketed with the California Energy Commission and summarized in a journal article.
- For a 500-MW combined-cycle power plant, identified and evaluated methods to reduce water use and water quality impacts. These included the use of zero liquid discharge systems and alternative cooling technologies, including dry and parallel wet-dry cooling. Prepared cost analyses and evaluated impact of options on water resources. This work led to a settlement in which parallel wet dry cooling and a crystallizer were selected, replacing 100% groundwater pumping and wastewater disposal to evaporation ponds.

Applied Ecology, Industrial Ecology and Risk Assessment

Experience in applied ecology, industrial ecology and risk assessment, including human and ecological risk assessments, life cycle assessment, evaluation and licensing of new chemicals, and fate and transport studies of contaminants. Experienced in botanical, phytoplankton, and intertidal species systematics and water chemistry analyses. Some typical projects include:

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- Evaluated likelihood that measured organochlorine pesticide concentrations at a U.S. naval air station are residuals from past applications of these pesticides consistent with manufacturers' recommendations.
- For a 180-MW geothermal power plant, evaluated the impacts of plant construction and operation on the fragile desert ecosystem in the Salton Sea area. This work included baseline noise monitoring and assessing the impact of noise, brine handling and disposal, and air emissions on local biota, public health, and welfare.
- Evaluated the public health impacts of locating big box retail developments in densely populated areas in California and Hawaii. The impacts of diesel exhaust emissions and noise on surrounding residential communities were measured and evaluated. This work is continuing.
- Designed and managed toxicological study on potential interference of delta-9-tetrahydrocannabinol in food products with U.S. employee drug testing. Coauthored peer-reviewed publication.
- Conducted technical, ecological, and economic assessments of product lines from agricultural fiber crops for European equipment manufacturer. Coauthored proprietary client reports.
- Prepared human health risk assessments of air emissions from several industrial and commercial establishments, including power plants, refineries, and commercial laundries.
- Managed and conducted studies to license new pesticides. This work included the evaluation of the adequacy and identification of deficiencies in existing physicochemical and health effects data sets, initiating and supervising studies to fill the data gaps, conducting fate and transport studies, and QA/QC compliance at subcontractor laboratories. Prepared licensing applications and coordinated their progress with German registration agencies. This work led to regulatory approval of several pesticide applications in less than 6 months.
- Designed and implemented database on physico-chemical properties and environmental and health impacts of pesticides.
- Developed life cycle assessment methodology for industrial products, including agricultural fiber crops and mineral fibers. Analyzed technical feasibility and markets for thermal insulation materials from plant fibers and conducted comparative life cycle assessments.
- Designed research protocols for a coastal ecological inventory. Developed sampling methodologies, coordinated field sampling, identified species in intertidal zone, and analyzed data.
- Designed and conducted limnological study on effects of physico-chemical parameters on phytoplankton succession; performed water chemistry analyses and identified phytoplankton species. Co-authored two journal articles on results.
- Conducted and organized underwater surveying and mapping of macrophytes in many lakes and rivers in Sweden and Germany as ecological indicators for the health of limnological ecosystems.

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- Provided pro-bono consulting for the Pine Ridge Reservation in South Dakota. Assessed environmental improvement and economic development projects and recommended methods to improve the quality of life.

PROFESSIONAL AFFILIATIONS

American Chemical Society
 American Institute of Chemical Engineers
 Association of Environmental Professionals

SELECTED PUBLICATIONS

- Leson, G., Pless, P., Grotenhermen, F., Kalant, H., ElSohly, M. Evaluating the impact of hemp food consumption on workplace drug tests. *Journal of Analytical Toxicology*, 25: 11/12, 1-8, 2001.
- Pless, P. Technical and environmental assessment of thermal insulation materials from fiber crops. Doctoral Dissertation in Environmental Science and Engineering, University of California, Los Angeles, 2001.
- Leson, G., Pless, P. Assessing the impact of THC uptake from hemp oil cosmetics on workplace drug testing. Report to the Agricultural Research and Development Initiative (ARDI), Morris, MB, 2001.
- Leson, G., Pless, P. Hemp seeds and hemp oil. Grotenhermen, F., Russo, E. (eds.): Cannabis und Cannabinoids. Pharmacology, toxicology, and therapeutic potential. The Haworth Integrative Healing Press, New York, 2002.
- Leson, G., Pless, P. Hemp foods and oils for health. Your guide to cooking nutrition and body care. HempTech, Sebastopol, CA, 1999.
- Leson, G., Pless, P. What variety? Hemp cultivars for Canada. *Commercial Hemp*, 7-8, Fall 1998.
- Leson, G., Pless, P. Farming and processing: Technology status. *Commercial Hemp*, 5-6, Summer 1998.
- Center of Waste Reduction Technologies. Collaborative Biofilter Project. Technical report. Co-author with G. Leson of sections Compound Database, Design Manual, and Literature Database. Center of Waste Reduction Technologies in the American Institute of Chemical Engineers.
- Hantke, B., Domany, I., Fleischer, P., Koch, M., Pless, P., Wiendl, M., Melzer, M. Depth profiles of the kinetics of phosphatase activity in hardwater lakes of different trophic level. *Arch. Hydrobiologia*, 135: 451-471, 1996.
- Hantke, B., Fleischer, P., Domany, I., Koch, M., Pless, P., Wiendl, M., Melzer, M.: P-release from DOP by phosphatase activity in comparison to P excretion by zooplankton: Studies in hardwater lakes of different trophic level. *Hydrobiologia*, 317: 151-162, 1996.
- Pless, P. Untersuchungen zur Phytoplanktonentwicklung im Herressee (Investigations on phytoplankton succession in an oligotrophic hardwater lake). Masters Thesis in Biology/ Ecology, Technical University of Munich, Germany, 1991.

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EXHIBIT 3

Business Day

The New York Times

THURSDAY, SEPTEMBER 15, 2005

Northwest
 Airlines, which Northwest has been...
 Many experts thought the airline...
 changes to federal bankruptcy law take...
 effect and limit the amount of time in...
 Continued on Page 4

At Time of Epic Storms, Oil Industry Thinks Anew
 The Mars tension-leg platform owned by Shell before Hurricane Katrina, left, and afterward. It is expected to be out of operation for months.
 Around the world, offshore oil and gas platforms are generally built to survive without serious damage a so-called 100-year storm — a hurricane so powerful that it typically occurs only once every hundred years.
 Hurricane Ivan roared through the Gulf of Mexico a year ago, generating the highest waves ever recorded there in a storm considered likely to occur only once every 2,500 years. Given the scale of the hurricane, it was inevitable that it would wreak havoc in the Gulf. America's biggest energy-producing region, spreading miles of underwater pipelines, deep-sea platforms and cringing production for months.
 But when industry officials, engineers and oceanographers gathered at an American Petroleum Institute conference in Houston in July to discuss ways of improving the Gulf's in-
 frastructure, they expected to have plenty of time to work on the problems. Then Katrina struck.
 "We're meeting more 100-year events happening more often, even every few years," said Jalar Karim, who has designed, engineered and managed offshore platforms for Unocal, the oil company recently acquired by Chevron. "The bar has to be higher."
 The stakes, too, are higher than before. Older production sites in Texas and Oklahoma have been on a gradual decline for years, and potential oil-producing regions on land elsewhere in the United States are out of bounds.
 In the meantime, more oil and gas has been gubbed out of the Gulf, which was first tapped half a century ago, amounting now to nearly a third of domestic output. And the bulk of that production is concentrated as no more than a couple of dozen plat-
 forms, each costing \$1 billion to \$2 billion.
 As the petroleum industry confronts the challenge of recovering as quickly as possible from Katrina, officials are just beginning to assess the bigger, longer-range questions. But clearly, they cannot count on nature being predictable.
 "Most definitions of a 100-year event were calculated before Ivan and Katrina," said Bob Hamilton, a vice president at the Woods Hole Group, an ocean engineering group in Massachusetts. "At this point, are the 100-year criteria good enough?"
 Hurricane Katrina cut deeply into oil and gas production, shut down major refineries, sent gasoline prices to record highs and set off an energy crisis. Oil companies, just as they did after earlier devastating gulf storms — Betty in 1965, Camille in 1969, Ivan in 2004 —
 are rethinking how they operate offshore. But now they are asking themselves tougher questions.
 "We've never seen anything like Katrina," said Tim Sanderson, one of the July conference organizers and the coordinator for drilling and production operations at the petroleum industry. "We have to consider the data and look at whether we need to update our standards."
 According to the Coast Guard, Katrina destroyed, damaged or sank about 100 of the 400 gulf platforms.
 When it passed over the gulf's crowded waters, Katrina was at its peak, a Category 5 storm, the most powerful in the Saffir-Simpson scale. Winds of 175 miles an hour snapped towers, sending some platforms adrift. Waves toppled steel structures, and underwater slides

Asbestos Fund Bars 9 Doctors
 BY JONATHAN D. GLATZER
 One of the oldest and largest litigations to compensate victims ofbestos exposure has barred nine doctors from testifying before a federal bankruptcy court. The move is an indication of government's investigation into the trust's decision to fund current bankruptcy proceedings. The trust, which paid out \$2.1 billion to resolve claims since it was created in 1990, is opposed to growing concerns that the claims it receives are not and may even be fraudulent.
 Lawyers for Claims Reo Management Corporation, a wholly owned subsidiary of the trust, said they had received a subpoena from federal prosecutors in Massachusetts to produce information about the trust's decision to fund current bankruptcy proceedings. The trust, which paid out \$2.1 billion to resolve claims since it was created in 1990, is opposed to growing concerns that the claims it receives are not and may even be fraudulent.
 "It is further evidence that is coming on these doctor Jane Thorpe, a lawyer in the office of Alison A. Bird who funded corporations in Massachusetts in the office of various types of asbestos, for more than 20 years. As in the Trust case, I

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At a Time of Epic Storms, Oil Industry Thinks Anew

Continued From First Business Page

With the ground under pipelines, probably causing widespread damage that has yet to be fully assessed.

Four fatalities caused by Hurricane Stan, the Gulf's largest ever, suffered extensive damage.

They included the biggest offshore failure in the region, a 200,000-barrel platform named March, which is expected to be out of commission for months after being damaged by the hurricane's winds and waves.

Shell said its major — which usually amounts to 200,000 barrels a day, or nearly a third of the Gulf's oil production — would be down for several weeks.

All in all, the hurricane caused nearly the entire Gulf oil region to be shut down. A few days before Katrina struck, oil companies closed off wells, processed the platforms and shipped production to a refinery nearby. From daily output of 1.5 million barrels a day, the region is now producing an average of 400,000 barrels a day, according to the Interior Department.

But since Aug. 26, when the platform was shut down, 28 million

barrels of oil production has been lost, the equivalent of a day's consumption for the United States. The loss in natural gas production, now back at 85 percent of its level before the storm, was 99 billion cubic feet.

Despite the damage, many oil experts said that most of the offshore infrastructure fared remarkably well. All the platforms that were damaged were old and antiquated structures, some built in the late 1970s and producing little oil. The new platforms, including Shell's March, are far more robust. The company expects March to resume full production.

Moreover, the facilities offshore survived the storm better than those onshore. Because of flooding in coastal Louisiana and Mississippi, it will be months before a handful of major refineries and gas-processing facilities are brought back online. Workers were safely flown out. While there is much to repair, most of the platforms and rigs that operate at sea suffered relatively little major damage.

"That's an absolute story of success," said Don Orange, chief executive of AOA Geophysics, a consulting firm. "You can do the best engineering in the world, but nature might still have a cornucopia at you."

Specialists are more worried about the state of the underwater pipelines. Tearing 2,000 miles, the Gulf network is to be shut within 200 after Hurricane Ivan, which produced multistage that snapped pipelines, shifted pipes around and caused long delays and repairs before production could be resumed.

In fact, close to zero information on the state of the pipelines. Oil companies must wait the pressure on their platforms before assessing the state of the pipelines. But the line is that some parts of that network have again been disabled.

Engineers have known about the ripples caused by mudslides at the mouth of the Mississippi Delta since

What to do when 100-year storms seem to be an annual event?

At least 1989. That was the year Shell's South Pass 79 platform was destroyed by mudslides led to mud by Hurricane Camille. The destruction of the platform, which was built new, shocked the industry and led to the development of structures with foundations as deep as 800 feet, well below the mud-line.

But pipelines are a different matter, said Jim Hooper, an experienced geotechnical engineer and senior consultant for Pugh MacFarland Marra Geotechnics, who compared the seabed to some coastal areas to get the spreading at depths of 200 feet.

"Essentially, the waves get big enough and the 200-ft falls," said Mr. Hooper, a pioneer of the modern, resilient platforms.

Given that phenomenon, he said, pipelines cannot be easily buried. Most are simply laid on the seabed and are submerged somewhat to avoid fishing trawlers. To prevent spills, they are designed with break-aways and valves that shut off automatically when the ground shifts. The trick then is to find the parts and carry them back together.

"What if it comes down to it that pipelines are fragile and failures will occur," Mr. Hooper said. "The industry has learned to repair as fast as possible."

With larger quantities of oil coming through some major pipelines, more safety-related work is being considered, including burying the larger pipes and having maintenance routes or diverting around them.

But the biggest uncertainty is in the life-span more criteria followed by the industry. With more powerful storms occurring more frequently, the question is how to update certain design standards, like the height from the surface of the water to the lower deck of a platform. The greater the distance, the bigger the waves that can be created during a storm.

In the 1970s, recommended deck heights — on the "top edge" to industry jargon — were 35 feet. Today, the most common recommendation is 55 feet.

But even that proved insufficient with Hurricane Ivan. Chevron's Petros platform was hit by a wave estimated at 80 feet from crest to trough. Its impact caused extensive damage requiring the installation to be shut down for six months for repairs.

Tough Enough?

Hurricane Katrina has caused experts to wonder whether existing standards for building oil platforms and pipelines are adequate. Here are three problems that hurricane pose for engineers.

Winds above 30 m.p.h. can dent a platform's superstructure, sending cranes, heliports and derricks crashing to lower levels or into the ocean.

Unexpectedly high waves can collapse the platform. Current standards call for the lower deck to be 55 feet above sea level, but waves up to 80 feet, from crest to trough, have been recorded.

Pressure from big waves can depress areas of the seabed, causing mudslides and breaks in the pipeline.



J. A. Hyra
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Ms. Karen Hoo
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Long Range Planning
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The industry is feeling the strain. Hurricanes come to phases that alternate between quiet periods and more active seasons. Since 1950, the Atlantic has been in a period of stronger hurricanes that might last 10 or 15 years more, according to the National Oceanic and Atmospheric Administration.

From 1950 to 2004, hurricane seasons averaged 13.3 tropical storms, 7.3 hurricanes and 2.3 major hurricanes. Six of those years were classified as hyperactive and 2005 is shaping up as another one. By contrast, from 1975 to 1995, hurricane seasons were quieter, averaging 9 tropical storms, 3 hurricanes and 1.2 major hurricanes. None was a hyperactive season.

"The last active period was in the 1960's," said Charles Wilson, president of Kinetic Analysis, which models the impact of hurricanes on the Gulf's production. "Though there have been lulls by a period of inactivity."

But as with most debates over climate, there is little consensus on whether the cause that hurricanes are becoming fiercer or whether global warming has had an effect. One thing, though, seems certain: with the global oil industry operating flat out, there is almost no margin for error.

"Life is getting complicated in the Gulf," said Joe Suber, a coastal oceanographer formerly at Louisiana State University, who has worked as an oil industry consultant. "The industry has to address the environmental risk. If I am going to build a platform, I have to look at the risk of that facility being destroyed by nature."

Demand for Gasoline Falls for a 2nd Week

By MIKAL BAJAJ

July 26, 2005

Dear Ms. Hoo:

Our family objects to the proposed project to relocate Runway 7R/25L. This project will create additional traffic problems and bring more noise and pollution into the adjoining neighborhoods. A regional airport solution is needed, not the LAX Master Plan.

Thank you.

Sincerely,

J. A. Hyra

SAIP-AL00006

SAIP-PC00001

-----Original Message-----
From: Dwight Abbott [mailto:dwrightabb2@cox.net]
Sent: Monday, August 01, 2005 11:34 PM
To: LAX Master Plan Stakeholder Liaison
Subject: SAIP Clarification

The Draft EIR for SAIP is not clear on the proposed center taxiway width.
Page I-4 states 75'
Page II-3 states 100'
Page II-10 states 75'
Please advise the correct planned width.
Thanks,
- Dwight Abbott

August 29, 2005

Los Angeles World Airports
Long Range Planning
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Attn: Karen Hoo

Dear Ms. Hoo,

As long time resident of El Segundo, my husband and I would like to protest the South Airfield Improvement Project. The noise and air pollution would adversely effect those of us who live near the airport. Please consider constructing an end-around taxiway as an alternative to moving the south runway.

Since our residence would be adversely effected by the South Airfield's Improvement Project, we would also like to protest any airport expansion, including the constraining the airport to its present capacity.

Sincerely,

Bernice Whitcomb

Mrs. Bernice Whitcomb
732 Hillcrest St.
El Segundo, CA 90245

SAIP-PC00002

SAIP-PC00003



September 12, 2005

Karen Hoo
Los Angeles World Airports
Long Range Planning
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Ref.: LAX Master Plan Stakeholder Committees' Comments on the South Airfield Improvement Project, Draft Environmental Impact Report (SAIP DEIR)

Ms. Hoo:

On September 10, 2005, the LAX Master Plan Stakeholder Committees met to deliver their comments on the SAIP DEIR. The LAX Master Plan Stakeholder Liaison Office (SHLO) provided the venue and program to assist in this effort. This letter constitutes the transmittal letter for the subject comments, which are attached.

It is important to note that the comments were given to SHLO through a committee process developed as part of the LAX Master Plan Compliance process. Stakeholder committee members are divided into five committees - Community/Neighborhood Groups & Residents, On-airport businesses, Off-airport businesses, Small Business Affairs and CD 8 - 11. The intent of the process is to have the committees meet to discuss and then provide their comments on a DEIR to this office for transmittal to LAWA as a group. Please note that we had no representatives from the CD 8-11 committee for this session.

We did, however, have a contingent of Spanish speaking stakeholders, who had previously not signed up as committee members, but who asked for an opportunity to provide their comments in a separate group. You will therefore find comments from members of four committees divided into three Groups. Be aware that comments from Group 1 are in Spanish. Though we were able to contract certified translators at the last minute for the meeting, we do not have organic certified translators to translate the comments to English.

We compiled the comments by group then highlighted which comments came from which committee. Each commenter signed the cover sheet acknowledging their participation in the process. Since we asked the committee members to RSVP, we developed a list of the attendees so that they could acknowledge their participation and thus have a collective record of the authors of the comments. Unfortunately, 50% of those who RSVP'd did not attend. As a result you'll find some blank signature blocks in the attendance sheets.



Imperial Terminal, 6661 Imperial Highway, Los Angeles, CA 90045 phone: 800.919.3766 fax: 310.215.7477 www.laxmasterplan.org SAIP-PC00004



My staff and I will provide whatever assistance we can to help facilitate the 'response to comments' process within our limited resources. I can be contacted at (310) 337-8412.

Sincerely,

[Handwritten signature of Robert L. Gilbert]

Robert L. Gilbert
Interim LAX Master Plan
Stakeholder Liaison

- 3 Attachments
1 Group 1 comments
2 Group 2 comments
3 Group 3 comments



Imperial Terminal, 6661 Imperial Highway, Los Angeles, CA 90045 phone: 800.919.3766 fax: 310.215.7477 www.laxmasterplan.org SAIP-PC00004

SAIP DEIR Stakeholder Committee Meeting: LMU, September 10, 2005

Group 1

- Hugo Aguilar, Non-Committee Stakeholder: RSVP'd Did not Show
Pricilla Aguilar, Non-Committee Stakeholder: [Signature]
Maria Casillas, Community Groups and Residents: RSVP'd Did not Show
Lupe Cornejo, Non-Committee Stakeholder: [Signature]
Alex Cornejo, Non-Committee Stakeholder: [Signature]
Pricilla Cornejo, Non-Committee Stakeholder: RSVP'd Did not Show
Tony Cornejo, Non-Committee Stakeholder: [Signature]
Adolfo Jimenez, Non-Committee Stakeholder: [Signature]
ADD'S Jimenez, Non-Committee Stakeholder: [Signature]
Hilda Medina, Non-Committee Stakeholder: [Signature]
Larry Medina, Non-Committee Stakeholder: RSVP'd Did not show
Maria Magdalena, Community Groups and Residents: RSVP'd Did not show

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SAIP DEIR Stakeholder Committee Meeting: LMU, September 10, 2005

- Sonia Ramirez, Community Groups and Residents: [Signature]
Henry Tambito, Non-Committee Stakeholder: RSVP'd Did not Show
Mary Tambito, Non-Committee Stakeholder: RSVP'd Did not Show
Name/Nombre Committee (if applicable) Signature/Firma

NOT USED

Group 1 Pg.: 2/4 SAIP-PC00005

Chapter I. Introduction:

No hay comentarios.

Chapter I. 1.1 Background and Project History:

No hay comentarios.

Chapter I. 1.2 Summary of Proposed Project:

No hay comentarios.

Chapter I. 1.3 Summary of Project-Specific Environmental Analysis:

No hay comentarios.

**Chapter I.
1.4 Areas of Known Controversy:**

No hay comentarios.

**Chapter I.
1.5 Summary of Potential Environmental Impacts Related
to the South Airfield Improvement Project:**

No hay comentarios.

**Chapter I.
1.6 Summary of Potentially Significant and Unavoidable
Impacts:**

No hay comentarios.

**Chapter II.
Project Description**

**Chapter II.
2.1 LAX Master Plan's South Airfield Improvement Project:**

No hay comentarios.

**Chapter II.
2.2 Airfield Design Alternatives Evaluated in the LAX
Master Plan:**

No hay comentarios.

**Chapter II.
2.3 New Information:**

No hay comentarios.

**Chapter II.
2.4 Proposed Project:**

No hay comentarios.

**Chapter II.
2.5 Airport Operational Characteristics Before and After
Completion of Construction:**

No hay comentarios.

**Chapter II.
2.6 Project Alternatives:**

No hay comentarios.

**Chapter II.
2.7 Federal, State, and Local Actions and Required
Permits:**

No hay comentarios.

**Chapter III.
Overview of Project Setting**

**Chapter III.
3.1 Los Angeles Regional Airport System:**

No hay comentarios.

**Chapter III.
3.2 Existing Land Uses in the Project Area:**

No hay comentarios.

**Chapter III.
3.3 Airport Facilities:**

No hay comentarios.

**Chapter III.
3.4 Public Roadway Access and Circulation:**

No hay comentarios.

**Chapter III.
3.5 LAX and Non-LAX Development:**

No hay comentarios.

**Chapter III.
3.6 Aviation Activity:**

No hay comentarios.

**Chapter IV.
Setting, Environmental Impacts, and
Mitigation Measures**

**Chapter IV.
4.1 Hydrology and Water Quality:**

GP1-9.	Que el proyecto protege 100% la calidad del agua. SCG
GP1-10.	¿Qué tan seguros son los tanques de combustibles para prevenir un derrame? SCG
GP1-11.	¿Como van a procesar el agua que pase a través del la aerópista? SCG

Chapter IV.
4.2 Off-Airport Surface Transportation:

GP1-12.	Deberían de cambiar las horas de entregas de 11:00am a 2:00pm. SCG
GP1-13.	Las mismas calles no deberían verse afectadas por todos los 24 meses durante de la construcción. SCG
GP1-14.	¿Qué avenida usaran---Century Boulevard o Imperial Highway para las entregas? SCG
GP1-15.	El aeropuerto deberá tomar pasos necesarios para asegurar que todos los vehículos de transportación relacionados con el proyecto tengan un lugar donde se puede estacionarse y que no afecte la vecindad. SCG
GP1-16.	¿Cuándo iniciará la construcción? SCG
GP1-17.	¿Ya este aprobado este proyecto? ¿Nadie se opone? SCG
GP1-18.	¿Qué mejoras van haber para el túnel? SCG
GP1-19.	Que cada cambio de ruta afecte de la manera más mínima la vida cotidiana de los cuidanos. SCG
GP1-20.	¿Qué entrada o salida de la autopista será la mas afectada para la comunidad? SCG
GP1-21.	¿Qué impacto va a tener la orden del Alcalde de prohibir la construcción durante las horas de mayor congestión? SCG
GP1-22.	¿Van haber menos carriles o se van a disminuir o reducir? SCG

Group 1

Spanish Community Group (SCG)

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Chapter IV.
4.3 Air Quality:

GP1-23.	Que este proyecto asegure que las normas de seguridad sean de alta calidad para evitar la contaminación del aire. SCG
GP1-24.	¿Qué tipo de maquinas van a usar para mantener la calidad del aire? SCG
GP1-25.	¿Qué proceso van a emplear para disminuir el polvo del concreto que contamina al aire durante la excavación y reubicación? SCG
GP1-26.	El estudio del aire solo tomo en cuenta tres diferentes años. ¿Por qué solo estos tres años? SCG

Group 1

Spanish Community Group (SCG)

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Chapter IV.
4.4 Human Health Risk Assessment:

GP1-27.	¿Por qué usaron el peor ejemplo de setenta años? ¿Por qué exageraron? SCG
---------	---

Group 1

Spanish Community Group (SCG)

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Chapter IV.
4.5 Noise:

GP1-28.	El problema del ruido de los aviones es algo con que vivimos a diario. No por ahorrar unos cuantos dólares sacrifiquen la paz de la comunidad. SCG
GP1-29.	¿Cual es la distinción entre los niveles de construcción y el ruido de los aviones en el reporte? SCG
GP1-30.	Las ciudades aledañas al aeropuerto, el área de Lennox, Inglewood, y Hawthorne, va a ser mas comercial que residencial, y esto es bueno. ¿Como ayudaría este proyecto para llegar a esta meta? SCG

Group 1

Spanish Community Group (SCG)

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**Chapter IV.
4.6 Biotic Communities:**

No hay comentarios.

**Chapter V.
Other Environmental Resources**

**Chapter V.
5.1 Land Use:**

No hay comentarios.

**Chapter V.
5.2 Population, Housing, Employment and Growth-
Inducement:**

No hay comentarios.

**Chapter V.
5.3 Cultural Resources:**

No hay comentarios.

**Chapter V.
5.4 Endangered and Threatened Species of Flora and Fauna:**

GP1-31. ¿Cuales son las medidas de prevención para disminuir el efecto en la flor y fauna en peligro y amenazadas? SCG

**Chapter V.
5.5 Wetlands:**

GP1-32. ¿Qué métodos van a tomar para proteger los animales que habitan en esta área? SCG
GP1-33. ¿Qué métodos van a usar para prevenir que los animales interfieran con las operaciones del aeropuerto? SCG

**Chapter V.
5.6 Energy Supply and Natural Resources:**

GP1-34. ¿De donde vendrán los recursos naturales para este proyecto? SCG
GP1-35. ¿Qué planes secundarios tienen en caso de escasez de petróleo? SCG
GP1-36. ¿Qué planes secundarios tienen en caso que falle la electricidad? SCG
GP1-37. ¿A causa de este proyecto van a subir los costos de servicios públicos? SCG
GP1-38. ¿En caso de un apagón, que medidas van a tomar? SCG
GP1-39. ¿El aeropuerto podría crear su propia energía? SCG

**Chapter V.
5.7 Solid Waste:**

GP1-40.	¿Van a tirar elementos tóxicos? SCG
GP1-41.	¿A donde se llevarán los desperdicios? SCG

**Chapter V.
5.8 Aesthetics:**

GP1-42.	¿Que la apariencia de la aeropista deje una buena impresión al turismo y que seamos los mejores! SCG

Group 1

Spanish Community Group (SCG)

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Group 1

Spanish Community Group (SCG)

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**Chapter V.
5.9 Earth and Geology:**

GP1-43. SCG	Esta bien que construyan en este lugar porque no ocupa otro territorio.

**Chapter V.
5.10 Hazards and Hazardous Materials:**

GP1-44.	Que garanticen o aseguren que las sustancias peligrosas no se transportan a las áreas residenciales, cerca de las escuelas, hospitales o durante el periodo de mayor congestión.
GP1-45.	¿Qué seguridad acompañará el transporte de estas sustancias o de estos materiales peligrosos? SCG
GP1-46.	¿Qué métodos se usaran para asegurar que materiales peligrosos no contaminen durante el transporte? SCG

Group 1

Spanish Community Group (SCG)

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Group 1

Spanish Community Group (SCG)

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**Chapter V.
5.11 Public Utilities:**

GP1-47.	¿Qué efectos tendría esta construcción sobre las líneas o sistemas de distribución de los servicios públicos sobre otras ciudades? SCG
GP1-48.	¿Podría haber una escasez de agua que impacte negativamente la construcción del aeródromo? SCG
GP1-49.	¿Si hay una escasez de agua, quien va a tener prioridad, la comunidad o el proyecto? SCG
GP1-50.	¿Van a tener otra línea del agua durante la reconstrucción del túnel de Sepúlveda? SCG
GP1-51.	Se necesita tener otra fuente de agua por si esta se llegara a afectar. SCG
GP1-52.	No queremos que falte agua para la comunidad ni para el proyecto. SCG
GP1-53.	¿Qué alternativas a la construcción existen por si una de las líneas que controla otra ciudad u otra agencia se llegara a dañar? SCG

**Chapter V.
5.12 Public Services:**

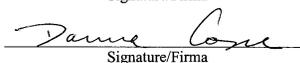
GP1-54.	Necesitamos una mejor distribución de policía durante la construcción (como durante los <red alerts>) para reducir el tiempo de respuesta. SCG
GP1-55.	¿Como puede mejorar la policía los problemas de drogadicción y prostitución en la vecindad del aeropuerto—especialmente Century Boulevard y también Imperial Highway? (Dueño de negocio y miembro de comunidad). SCG

**Chapter V.
5.13 Schools:**

GP1-56.	Que el programa asegure que las medidas de mitigación para el ruido de las escuelas se hayan terminado antes de que comience la construcción. SCG
GP1-57.	Procurar que la construcción de mayor intensidad se lleve acabo durante el descanso escolar del verano. SCG
GP1-58.	¿Qué otras tecnologías existen para disminuir el ruido en las escuelas aparte de cambiar las ventanas? SCG

SAIP DEIR Stakeholder Committee Meeting: LMU, September 10, 2005

Group 2

- Robert Acherman, Community Groups and Residents: 
Signature/Firma
- Rex Bonner, Community Groups and Residents: RSVP'd best early
Signature/Firma
- Danna Cope, Community Groups and Residents: 
Signature/Firma
- Alberto Davila, Community Groups and Residents: RSVP'd Did not show
Signature/Firma
- Miriam Davila, Community Groups and Residents: RSVP'd Did not show
Signature/Firma
- Patricia Hamilton, Community Groups and Residents: 
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- James Harris, Community Groups and Residents: RSVP'd Did not show
Signature/Firma
- Roy Hefner, Community Groups and Residents: 
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- Ann Marie Hickambottom, Cmty. Groups and Residents: RSVP'd Did not show
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- Guillermo Navarro, Community Groups and Residents: RSVP'd Did not show
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- Manuel Quintero, Community Groups and Residents: RSVP'd Did not show
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- Harry Len Rose, Community Groups and Residents: RSVP'd Did not show
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SAIP DEIR Stakeholder Committee Meeting: LMU, September 10, 2005

SAIP DEIR Stakeholder Committee Meeting: LMU, September 10, 2005

Edgar Saenz, Community Groups and Residents:

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Diane Sambrano, Community Groups and Residents:

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Denny Schneider, Community Groups and Residents:

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Nan Schneider, Community Groups and Residents:

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William D. Smart, Jr., Community Groups and Residents:

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Flor Tena-Barajas, Community Groups and Residents:

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Philip Walker, Community Groups and Residents:

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Catherine Walker, Community Groups and Residents:

RSVP'd Did not show Signature/Firma

James Williams, Jr., Community Groups and Residents:

[Signature] Signature/Firma

Name/Nombre Committee (if applicable) Signature/Firma

Martin Rubin Community Groups and Residents [Signature] Signature/Firma

D.A. "Curt" Curtis [Signature] Signature/Firma

JOHN DRAGONE COMMUNITY GROUP [Signature] Signature/Firma

NOT USED

Shauna Bain-Smith, Facilitator [Signature] Signature/Firma

Sougi Galleon, Recorder [Signature] Signature/Firma

LAX Master Plan Stakeholder Committee Comment Form

Date: September 10, 2005

Title of Project: South Airfield Improvement Project Draft Environmental Impact Report Review

GROUP 2

Participants in this group represented the following committees and have been designated the appropriate codes: Community/Neighborhood Groups and Residents (CG).

General Comments:

Table with 2 columns: Comment ID (e.g., GP 2-1), Comment Text (e.g., POOR READABILITY, Not user friendly. Too many acronyms used with deficient referencing. Referenced documents not provided. Should have footnotes with pertinent information. Too many assumptions. Someone's expectation should not determine whether or not something is worthy of evaluation. CG)

GP 2-19. With imminent oil crises, what plans for sustainable designs are being addressed in airport construction, and airline operation? CG
GP 2-20. I agree that the report is a disciplined analysis, although still not complete. LAWA is not operating efficiently to benefit local, regional, and state environments. CG
GP 2-21. LAWA is not compatible with the demands for protecting surrounding communities. CG
GP 2-22. Los Angeles will need the highways to mitigate neighborhood traffic impacts. CG
GP 2-23. LAWA's goal should be to balance between LAX operations and environmental, social, and land use issues. This has not been addressed in this current EIR. CG
GP 2-24. In light of the fact that 2/3 of the residents impacted, (according to Table 4.5-17) of which roughly 65% are Hispanic, it is unfortunate LAWA chose not to publish the SAIP in language specific to the Spanish speaking population. Only recently, has translation been made available to those attending meetings. CG
GP 2-25. The separation of Committee Groups by language files in the face of Brown vs. Board of Education. There is no guarantee that the exact same information was disclosed, which would impact responses. CG
GP 2-26. When planning this project, concern should be more for human life rather than mechanical devices. CG

Chapter I. Introduction:

GP 2-27. Who has authority to evaluate, propose, implement additional mitigation measures? And, will the Committees' comments be incorporated? CG
GP 2-28. You should provide complete protocol for the study, including disclosure of study responsibility, that involves community and stakeholder participations. CG
GP 2-29. A properly labeled grid map should be included. CG
GP 2-30. What will be the resolution to findings of Air Quality studies? Should negative impacts be identified? CG
GP 2-31. What are the California and national ambient air quality standards? CG
GP 2-32. These following pollutants: Sulfur Dioxide (SO2), Nitrogen Dioxide (NO2), Particular matters (PM), Ozone (O3), Lead, Carbon Monoxide (CO2), are not negligible and their full impact to quality of life should be included in the study. CG
GP 2-33. How will increased cargo traffic impact the neighboring communities? CG
GP 2-34. What is the domain of the impacted area? CG
GP 2-35. Where is the comparison of how many high speed aircraft are used on the Runways vs. the Center taxiway? CG
GP 2-36. How many aircraft can be accommodated in the center taxiway at one time? CG
GP 2-37. You say that no substantial/significant drainage will occur. How much is "significant"? CG
GP 2-38. Will airport pay if there is damage to the Dominguez Water Channel? CG
GP 2-39. (P. 1-3, 1.1.3) What is the public resources code section 21094(b)? CG
GP 2-40. (P. 1-7 1.3.2.2, C-1) How do you enforce delivery times? What is the schedule of penalties? CG
GP 2-41. (P. 1-7 1.3.2.2, C-1) How do you "encourage" night time truck deliveries? CG
GP 2-42. (P. 1-1, 1.1.1) Please list the improvements from 1984 until now that was not classified as MAJOR. CG
GP 2-43. (P. 1-3, 1.1.3) You refer to the LAX MP Final EIR as a final document. Throughout the SAIP EIR, why do you refer to documents you assume we know? CG
GP 2-44. (P. 1-5, 1.3.1.1) No significant drainage impacts would occur. How much is "substantial"? CG
GP 2-45. Why has LAWA accepted Bids on the SAIP prior to the completion of the EIR process? CG
GP 2-46. How will the Stakeholder's program be able to change or alter SAIP if the contracts have been signed to do the work? CG
GP 2-47. What is the purpose of the SAIP if the EIR has indicated there shall be "significant" and unavoidable impacts? CG
GP 2-48. What happens if 3.1 tons of cargo is exceeded? CG
GP 2-49. (P. 1-7 1.3.2.2, C-1) "Every effort" will not be made. Use the word "reasonable" before the use of "every effort". CG
GP 2-50. If net airport peak hours trips exceed 8236 or 78.9 MAP or 3.1 of Cargo, what form would the re-study take and would you adjust the maximum allowable figures? CG

Chapter I. 1.1 Background and Project History:

NO COMMENT

Chapter I. 1.2 Summary of Proposed Project:

NO COMMENT

Chapter I. 1.3 Summary of Project-Specific Environmental Analysis:

GP 2-51. (P. 1-12, 1.3.5.1.3) This DEIR for SAIP deals only with the SAIP. What would be the aircraft exposure level on a cumulative basis when and if there are other runway closures? CG
GP 2-52. (P. 1-11, 1.3.4.2) AQ 2 – School air filters "air filtration at 'qualifying' public schools"...Why not qualifying private schools? CG
GP 2-53. (P. 1-13, 1.3.5.2) Who determines "as far as possible?" (MM-N-8) Who determines what equipment emits the least "possible" noise? (MM-N-9) Who determines what is technically and economically feasible? (MM-N-9) Who determines what is necessary during these sensitive times? (MM-N-10) Who will determine that "every effort" will be made? (ST-16) CG

Chapter I. 1.4 Areas of Known Controversy:

NO COMMENT

Chapter I. 1.5 Summary of Potential Environmental Impacts Related to the South Airfield Improvement Project:

GP 2-54. Which specific libraries will be closed due to the impacts of the project? CG
--

Chapter I. 1.6 Summary of Potentially Significant and Unavoidable Impacts:

NO COMMENT

Chapter II. Project Description

Chapter II. 2.1 LAX Master Plan's South Airfield Improvement Project:

GP 2-55.	The document is deficient because it fails to consider other reasonable alternatives. A potential cost effective alternative would be to fully staff the LAX Control Tower. Other examples would be improving equipment, such as radio transmissions and/or hold or guard bars on the runways and retraining to minimize human error. CG
GP 2-56.	SAIP is not a safety measure but an expansion measure to accommodate the new large aircraft and additional operations. CG
GP 2-57.	How will LAWA "encourage" other airports to assume a greater air traffic load; What incentives, fees, or other methods would be instituted; How would they be funded and monitored? CG
GP 2-58.	What would be the impact on runway incursions of moving the hold bars 20 or 30 feet further south on taxiways approaching 25R? CG
GP 2-59.	The listing of category "A" runway incursions (RI) as justification for this project was erroneous. CG
GP 2-60.	There is no good project description. CG

Chapter II. 2.2 Airfield Design Alternatives Evaluated in the LAX Master Plan:

NO COMMENT

Chapter II. 2.3 New Information:

NO COMMENT

Chapter II. 2.4 Proposed Project:

NO COMMENT

Group 2

Community Group (CG)

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Community Group (CG)

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Chapter II. 2.5 Airport Operational Characteristics Before and After Completion of Construction:

NO COMMENT

Chapter II. 2.6 Project Alternatives:

NO COMMENT

Chapter II. 2.7 Federal, State, and Local Actions and Required Permits:

NO COMMENT

Chapter III. Overview of Project Setting

Group 2

Community Group (CG)

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Group 2

Community Group (CG)

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SAIP-PC00006

**Chapter III.
3.1 Los Angeles Regional Airport System:**

GP 2-61.	What is the impact of the A380 on the runways? CG
GP 2-62.	Since the MP is calling for the removal of the remote gates, why are they being renovated at this time? CG

**Chapter III.
3.2 Existing Land Uses in the Project Area:**

NO COMMENT

**Chapter III.
3.3 Airport Facilities:**

NO COMMENT

**Chapter III.
3.4 Public Roadway Access and Circulation:**

NO COMMENT

**Chapter III.
3.5 LAX and Non-LAX Development:**

NO COMMENT

**Chapter III.
3.6 Aviation Activity:**

NO COMMENT

Group 2

Community Group (CG)

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**Chapter IV.
Setting, Environmental Impacts, and
Mitigation Measures**

Group 2

Community Group (CG)

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**Chapter IV.
4.1 Hydrology and Water Quality:**

GP 2-63.	LAWA should secure a binding agreement with the appropriate County agencies regarding the potential significant and unavoidable impacts to the Dominguez Channel Watershed before proceeding. CG

**Chapter IV.
4.2 Off-Airport Surface Transportation:**

GP 2-64.	All of the traffic analyses use the assumption that the construction related traffic will be during non-peak hours. Therefore, given that the 405 traffic is already bumper to bumper, that is not a reasonable assumption. CG
GP 2-65.	Technical Report 3b' Off Airport Ground Access Impact and Mitigation Measures, January, 2001 was not given but is referenced. Please supply the referenced document. CG

**Chapter IV.
4.3 Air Quality:**

GP 2-66.	Once the negative impacts are identified, how will they be mitigated? How will the liability for addressing specific, individual health impacts be dealt with? CG
GP 2-67.	Additional pollutants caused by brakes, tires, and engine exhaust, while stopping, starting and idling when accessing and leaving the center taxiway should be further studied. CG
GP 2-68.	Environmental impacts of increased idling time attributed to the new taxiway configuration should be studied and mitigated. CG
GP 2-69.	All of the traffic analyses use the assumption that the construction related traffic will be during non-peak hours. Therefore, given that the 405 traffic is already bumper to bumper, that is not a reasonable assumption. How will this be mitigated?
GP 2-70.	Where is the impact on air quality discussed? CG
GP 2-71.	Gaussian Concentration Distribution is used but not explained. Please explain. CG
GP 2-72.	OLM Methodology employed in the Technical Report S-4, Attachment P is not included in this report. CG

Group 2

Community Group (CG)

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**Chapter IV.
4.4 Human Health Risk Assessment:**

GP 2-73.	The mitigation should include dispensing of portable air filtration units to residents and schools. CG
GP 2-74.	Lack of permanent monitoring stations should not preclude study of TAC's. CG
GP 2-75.	The human health impact assessment is speculative and unreliable. It relies on unsubstantiated assumptions. Primarily it assumes the implementation of an MPAQ, which does not yet exist. The SAIP should not proceed until the MPAQ is complete and can be assessed. CG

**Chapter IV.
4.5 Noise:**

GP 2-76.	How was it determined that heavy equipment operations would not increase existing ambient exterior noise levels by 5 dba or more; Will monitoring occur and if assessment is incorrect, will additional mitigation be required? CG
GP 2-77.	In relation to the runway construction period, additional runway mitigation measures need to be considered and implemented, such as: -Close down 1/4 of the gates -Temporarily change the flight paths. CG
GP 2-78.	Does anyone anywhere believe that noise in a classroom does not hinder the educational process; What could possibly be a replacement threshold other than "no learning disruptions"; What school districts will be your study area? CG
GP 2-79.	Section 4.1 and appendix S-C1 of LAX Master Plan Final EIR, or evolution of specific thresholds of significance for single event noise levels should be included. Copies of the draft of the CEQA Thresholds Guide should be included. Also not included are the 1985 Part I Noise Compatibility Program Copy. Also not included are the 28 abatement measures as approved by the FAA. CG
GP 2-80.	There are seven (7) measures already approved but aren't being implemented. Since they're not being fully implemented, the base line used for your noise contours is completely inaccurate. CG
GP 2-81.	The base line assumptions for night awakenings are FALSE. Therefore, everything related to that study must be restudied. CG
GP 2-82.	It is offensive that only churches are studied and not all faith based organizations. In addition, all churches are not even included. CG
GP 2-83.	How do you justify that certain homes, residences and schools that are not currently experiencing 65 CNEL or greater noise levels will be impacted by the new plan; what measures are being taken to address that issue? CG
GP 2-84.	Specific noise studies that include "single event" and "time above" level impacts should be included and mitigated for both runways and center taxiway, to include topography and transmission details at all frequencies. CG

Group 2

Community Group (CG)

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**Chapter IV.
4.6 Biotic Communities:**

GP 2-85. Ballona West Bluff is superior to El Toro for habitat restoration. The Bluff is far closer to the airport than El Toro and thus shares the same climate and soil and other environment attributes as the airport site. Furthermore, the Bluff possesses significant restoration value, and ensures the survivability of sensitive and threatened species found on airport property. CG
GP 2-86. In light of the intense development planned for EL Toro, it will imperil endangered and threatened species to transfer them to properties which may soon be commercially developed. CG

Group 2

Community Group (CG)

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**Chapter V.
Other Environmental Resources**

Group 2

Community Group (CG)

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**Chapter V.
5.1 Land Use:**

NO COMMENT

**Chapter V.
5.2 Population, Housing, Employment and Growth-Inducement:**

NO COMMENT

**Chapter V.
5.3 Cultural Resources:**

NO COMMENT

**Chapter V.
5.4 Endangered and Threatened Species of Flora and Fauna:**

NO COMMENT

**Chapter V.
5.5 Wetlands:**

NO COMMENT

**Chapter V.
5.6 Energy Supply and Natural Resources:**

NO COMMENT

Group 2

Community Group (CG)

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**Chapter V.
5.7 Solid Waste:**

NO COMMENT

**Chapter V.
5.8 Aesthetics:**

NO COMMENT

**Chapter V.
5.9 Earth and Geology:**

NO COMMENT

**Chapter V.
5.10 Hazards and Hazardous Materials:**

GP 2-87. LAX was built prior to the establishment of the FAA current design standards for airports serving large commercial jets. For this reason, not all the safety areas and safety zones surrounding the 4 LAX runways, meet today's recommended dimensions for airport development. CG
GP 2-88. The SAIP specifically violates the Runway Protection Zone as established by the FAA, by now enclosing residences within the SAIP RPZ. CG

**Chapter V.
5.11 Public Utilities:**

NO COMMENT

Group 2

Community Group (CG)

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LAX Master Plan Stakeholder Committee Comment Form

Date: September 10, 2005

Title of Project: South Airfield Improvement Project Draft
Environmental Impact Report Review

GROUP 3

Participants in this group represented the following committees and have been designated the appropriate codes: On-Airport (OA), Off-Airport (OFF) and Community/Neighborhood Groups and Residents (CG).

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General Comments:

GP 3-1. What is the expected life of the runway? CG
GP 3-2. Does the SAIP accommodate new large aircrafts? CG
GP 3-3. Why is it that LAWA is building a new runway instead of just improving the current runway? CG
GP 3-4. How much is the SAIP going to cost? CG
GP 3-5. How will LAWA accommodate the A380 during construction? CG, OA
GP 3-6. Without answers to specific questions about details of the project, all concerns cannot be addressed. Especially since all comments and questions must be submitted by September 15, 2005. Answers to specific questions may have sparked further questions. CG
GP 3-7. An executive summary or condensed version of each chapter of the EIR would be helpful and easier to read. CG
GP 3-8. Will the project trigger any mitigation measures in the surrounding communities under the flight path? OFF
GP 3-9. How does the project address the pilot/controller error, which has been stated to be the cause of a majority of the runway incursions? CG
GP 3-10. Does the project reduce the number of go-arounds or missed approaches? Please quantify? CG
GP 3-11. Can taxiway K be redesigned to help reduce pilot/controller error? Recommend jog so there is no straight path to taxiway B, thereby reducing the potential for incursions. CG, OA
GP 3-12. What specific training is being conducted to prevent construction vehicle/aircraft accidents/incidents? What safety plans are available and who is implementing them? OA
GP 3-13. What is the status of the FAA's approval of this project? What documents have been submitted and what still needs to be submitted? CG
GP 3-14. What happens if the project does not get approved? OA
GP 3-15. What happens if the project is delayed beyond 2006 (airline operational concerns)? OA
GP 3-16. How will the project be financed? (PFC)? CG, OA
GP 3-17. What are the fee impacts to the airlines? OA
GP 3-18. How does LAWA intend to deal with incursions if the project does not go forward? CG
GP 3-19. In the August 5, 2005 news release, FAA requested LAWA to develop and implement temporary, short term measures to minimize incursions. What was developed and what has been implemented? CG

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Chapter I. Introduction:

Chapter I. 1.1 Background and Project History:

NO COMMENTS

Chapter I. 1.2 Summary of Proposed Project:

NO COMMENTS

Chapter I. 1.3 Summary of Project-Specific Environmental Analysis:

NO COMMENTS

Chapter I. 1.4 Areas of Known Controversy:

NO COMMENTS

Chapter I. 1.5 Summary of Potential Environmental Impacts Related to the South Airfield Improvement Project:

NO COMMENTS

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**Chapter I.
1.6 Summary of Potentially Significant and Unavoidable
Impacts:**

NO COMMENTS

**Chapter II.
Project Description**

**Chapter II.
2.1 LAX Master Plan's South Airfield Improvement Project:**

GP 3-20. What is the impact of the SAIP to the clear zone (RPZ)? OFF
GP 3-21. As a result of the shift of runway 25L/7R will the Proud Bird be located within the clear zone? OFF
GP 3-22. As a result of the shift of runway 25L/7R will any other buildings now be in the clear zone? CG

**Chapter II.
2.2 Airfield Design Alternatives Evaluated in the LAX Master
Plan:**

NO COMMENTS

**Chapter II.
2.3 New Information:**

NO COMMENTS

**Chapter II.
2.4 Proposed Project:**

NO COMMENTS

**Chapter II.
2.5 Airport Operational Characteristics Before and After
Completion of Construction:**

NO COMMENTS

**Chapter II.
2.6 Project Alternatives:**

NO COMMENTS

**Chapter II.
2.7 Federal, State, and Local Actions and Required Permits:**

NO COMMENTS

Chapter III. Overview of Project Setting

Chapter III. 3.1 Los Angeles Regional Airport System:

GP 3-23. Has LAWA decided where security will be set-up for the construction staging area? OA
GP 3-24. Where will the security for the staging area be? OA, CG
GP 3-25. What is the background check procedure for proposed construction personnel? OA, CG
GP 3-26. It is recommended that LAWA provide a security screening plan for all inbound cargo/delivery/construction vehicles who have access to the AOA . OA, CG

Chapter III. 3.2 Existing Land Uses in the Project Area:

NO COMMENTS

Chapter III. 3.3 Airport Facilities:

NO COMMENTS

Chapter III. 3.4 Public Roadway Access and Circulation:

NO COMMENTS

Chapter III. 3.5 LAX and Non-LAX Development:

NO COMMENTS

Chapter III. 3.6 Aviation Activity:

NO COMMENTS

Chapter IV. Setting, Environmental Impacts, and Mitigation Measures

**Chapter IV.
4.1 Hydrology and Water Quality:**

GP 3-27. With regards to the hydrology concerns regarding flooding (drainage erosion), what are the mitigation measures or what is being done to address these concerns? CG
GP 3-28. What happens if LA County and the other referenced agencies do not take the suggested actions in HWQ-1? CG
GP 3-29. What is LAWA's plan to address the loss of 42 acres of pervious surfaces and can they mitigate that by providing pervious surfaces within the LAX boundaries? CG

**Chapter IV.
4.2 Off-Airport Surface Transportation:**

GP 3-30. How will motorists be advised (specific communication methods) of construction traffic and what is the airport willing to commit to? OFF
GP 3-31. The Master Plan commitments do not seem to have any enforcement mechanism. They must. For example in section 4.2.5, ST-12 states "truck traffic will be encouraged to use night time hours" but it is not required. CG

**Chapter IV.
4.3 Air Quality:**

GP 3-32. How much will emissions be increased due to planes holding on the new proposed taxiway? CG
GP 3-33. The end-around taxiway alternative would likely reduce emissions because planes could arrive at the gates more quickly during peak periods. OA
GP 3-34. Would a 10 ft. fence be sufficient to address fugitive dust that may impact the El Segundo blue butterfly conservation area (Fence height was referenced in a mitigation measure). CG
GP 3-35. Is there a mitigation measure or a Master Plan commitment to address dust created by rock crushing? If there is, which one? CG
GP 3-36. What specific activities will be taking place in the staging area for the SAIP? OA
GP 3-37. Are the air quality mitigation measures contingent upon the communities accepting LAWA's avigation easement requirements? CG

**Chapter IV.
4.4 Human Health Risk Assessment:**

GP 3-38. What are the mitigation measures or master plan commitments that address impacts to children, adults, schools and workers? CG
GP 3-39. Is AQ-2 saying that funding will only be provided to schools with air conditioning systems in place? CG
GP 3-40. How do schools qualify for funding under AQ-2? CG

**Chapter IV.
4.5 Noise:**

GP 3-41. What are the estimated permanent noise impacts/effects as they apply to this project? The master plan EIR is the only place where the permanent impacts are addressed and they are addressed for the master plan as a whole. There is no way of telling what the permanent effects of just the SAIP are, which is a concern in light of other master plan projects potentially not being realized. Reference: page IV-143, 2 nd paragraph, 2 nd sentence. CG
GP 3-42. What are the mitigation measures and master plan commitments for any impacts to the Centinela Hospital? Ref: IV-186 OFF
GP 3-43. What are the specific accelerated mitigation measures for the 19 schools in Inglewood referenced in MM-LU-3 and MM-LU-4? OFF
GP 3-44. Are the noise mitigation measures contingent upon the communities accepting LAWA's avigation easement requirements? CG
GP 3-45. How will the noise impacts during construction be measured compared to what was predicted in light of the permanent noise monitoring system being unavailable during the construction period (Ref. page IV-187 MM-LU-5)? CG

**Chapter IV.
4.6 Biotic Communities:**

NO COMMENTS

**Chapter V.
Other Environmental Resources**

**Chapter V.
5.1 Land Use:**

NO COMMENTS

**Chapter V.
5.2 Population, Housing, Employment and Growth-Inducement:**

NO COMMENTS

**Chapter V.
5.3 Cultural Resources:**

GP 3-46. What are the 10 historic properties? Is there an impact to the historic properties (ref. 5.3.2.1)? OA

**Chapter V.
5.4 Endangered and Threatened Species of Flora and Fauna:**

NO COMMENTS

**Chapter V.
5.5 Wetlands:**

NO COMMENTS

Chapter V.

5.6 Energy Supply and Natural Resources:

GP 3-47. Will the airlines experience any fueling disruptions due to construction?
 OA

Chapter V.

5.7 Solid Waste:

NO COMMENTS

Chapter V.

5.8 Aesthetics:

GP 3-48. What will be done with the stock piled material if future master plan projects are delayed or not realized? CG
 GP 3-49. How would the new high intensity lighting impact El Segundo and the multi-family units on Imperial Hwy? CG

Chapter V.

5.9 Earth and Geology:

NO COMMENTS

Chapter V.

5.10 Hazards and Hazardous Materials:

NO COMMENTS

Chapter V.

5.11 Public Utilities:

NO COMMENTS

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On-Airport (OA), Off-Airport (OFF) and Community Group (CG)

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Chapter V.

5.13 Schools:

NO COMMENTS

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From: JonesJ822@aol.com [mailto:JonesJ822@aol.com]
 Sent: Monday, September 12, 2005 7:40 PM
 To: EIR, SAIPDraft
 Subject: Public Comment on SAIP

As residents of El Segundo for over 25 years, we strongly object to the south runway being moving further south. As the configuration currently is, we barely tolerate the noise levels of the cargo planes. El Segundo home owners are not as concerned about any impact the construction project will have, a temporary situation, but we **are very much concerned** with what the project is doing, a long-term (i.e. permanent) condition. The runway move would have a negative impact on the noise level.

Such meticulous effort went into this impact study of the "improvement" project. Has there been any effort to communicate directly with the people who live with sometimes intolerable noise levels day in and day out? Your "workshops" have been nothing but presentations of what LAX intends to do, like it or not. They have all had an air of arrogance that the public has definitely felt. They are not real workshops where citizens can input ideas. Giving people these forms for comments is not enough.

We realize our comments are going beyond this construction project report but we must express our objection to the project itself. Our impact study suggests having a curfew on flights set at 10:00 pm. No flights should be allowed to take off after this time.

Palmdale makes a lot more sense than this inefficient and impractical packing of 10 lbs. of potatoes in a 5 lb. sack. Palmdale is really not that far away. Ontario wants the cargo. They both have ROOM.

Thank you for the opportunity to comment. I will send this comment in the regular mail.
 Wendy and John Jones
 321 E. Sycamore Ave.
 El Segundo, CA 90245
 (310) 640-9674

SAIP-PC00008

MasterPlan LAX

P.O. Box 92216
 Los Angeles, CA 900092216

Public South Airfield
 Comments on Improvement
 Project Draft EIR

Name (First, Last): Martin Rubin Date: September 13, 2005
 Do you represent an organization? Yes Name of Organization: Concerned Residents Against Airport Pollution
 Address: 2822 Barry Avenue
 City: Los Angeles State: California Zip Code: 90064
 Telephone (310): 479-2529 E-Mail: jetairpollution@earthlink.net

Subsection or Topic Area (if Applicable):
 Number: Title:

Comments: Concerned Residents Against Airport Pollution would like to have the following air quality item addressed:

Office Use-Only

1. Given that the Los Angeles area has the worst air quality in the nation and that emissions from jet aircraft have not been adequately studied; what justification is there for adding more "significant and unavoidable" air quality impacts on communities that are already over-impacted with the emissions from idling jets, that idle for approximately one half hour for each jet (as shown in Volume2, Appendix K, K.2 Operational Emissions with Tables K-8 and K-9)?

2. Also: Why is it that nowhere, in this document, is the dumping of fuel from flying aircraft over areas addressed?

Attach Additional Sheets or use Reverse (If necessary)

Please Note: Comments to the SAIP Draft EIR must be received at LAWA (ADDRESS) no later than 5:00 p.m., September 15, 2005. Comments received after that date and time may not be considered in the Final EIR.

SAIP-PC00009

Los Angeles International Airport Advisory Committee

Committee Members: Residents of El Segundo, Inglewood, Lennox, Hawthorne, Culver City and Westchester

September 14, 2005

Los Angeles World Airports
Long Range Planning Dept.
Attention: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Re: South Airfield Improvement Project ("SAIP")
Draft Environmental Impact Report ("DEIR")

Dear Ms. Hoo:

For more than 30 years, the Los Angeles International Airport Area Advisory Committee ("LAXAAC") has served as an advisory board to the Board of Airport Commissioners ("BOAC"). LAXAAC members are appointed by the Mayors or County Supervisor in communities immediately surrounding LAX to represent their communities: El Segundo, Lennox, Hawthorne, Inglewood, Culver City, Marina del Rey, and the Westchester and Playa del Rey areas of Los Angeles.

It is in this advisory role, that we provide these comments to LAWA. The members of LAXAAC are concerned about a number of issues raised by the SAIP DEIR, and we appreciate this opportunity to express our comments on general and specific items.

Our first question is why did LAWA accept bids on the SAIP prior to the completion of the EIR process? We question whether the Stakeholder program or any other respondents will be able to influence the SAIP if the contracts already have been drawn up or executed, or even if bids have been made based upon the initial assumptions in the DEIR.

One of our basic concerns is that the SAIP is in conflict with the stated goal of LAWA to achieve a regional solution to air traffic problems. Indeed, the SAIP seems to be an enlargement of LAX primarily to serve the Airbus A380. If LAWA is truly seeking a regional approach, we would expect more of an effort to route these new large aircraft to Ontario or Palmdale.¹ Why have we not seen such an effort? How would LAWA "encourage" (page II-1, 1.2) other airports to assume a greater load? What incentives, fees, or other methods would be instigated? How would they be funded? How would they be monitored?

The DEIR also claims in Section 2.1 that "The airfield modification ... [would] improve the ability of LAX to handle new large aircraft (NLA), thereby helping the airport sustain and advance its role as the region's international gateway. As of July 2003, seven of the international air carriers at LAX using the B747 placed orders for the Airbus A380." It also states that "some of these carriers will initiate A380 service at LAX in the 2006 time frame." However, we expect that this would occur regardless of whether the runway is moved, and taking such an approach does nothing to achieve a regional airport solution.

It appears that the real reason for the project is to enable LAX to become one of the few American airports that can readily accommodate the Airbus A380. Relying upon the HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004), the DEIR states that the center taxiway should **reduce the likelihood of runway incursions** in the south airfield. This is the only statement made anywhere regarding how the

¹ It is both sad and ironic that instead of transferring flights to the former El Toro Marine Air Station in Orange County, LAWA will be transferring our wildlife there (IV-250-251).

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Page 2, LAXAAC Comments on SAIP DEIR

South Airfield Improvement Project would increase safety by reducing runway incursions ("RIs"). It is hardly a mandate for the runway project that the \$38 million to be spent would only **reduce the likelihood** of RIs.

Why go to all the expense of moving a runway without exploring other, far less costly and more effective safety measures?

The LAX Master Plan Final EIR is repeatedly referred to as setting the parameters for this project and the SAIP DEIR states that "this document does not reevaluate project alternatives." However, we believe that the door has been opened to challenge the statements about incursions through the Stakeholder process given the citations of a study of RIs as the reason for the project without identifying the categories of incursions. Section 2.1 states that: "In terms of safety, a primary consideration in the selection of an airfield design was the elimination or reduction of Runway Incursions."

Although incursions are cited as a security basis for creating the center taxiway, there is no indication of how many were Category A, B, C, or D Runway Incursions. How many Safety Incidents were included in the count of "incursions"? Were any of the incursions or incidents caused by anything other than human error?

In our committee's letter commenting on the LAX Master Plan, we challenged the five Category A RIs that were reported for 2002 in the Master Plan EIS/EIR. When the responses to the comments were published, LAX again stated that these incursions had happened. To the contrary, however, using LAX charts and FAA tower information from 2002 to 2005, we found that there are no Category A RIs that match the LAX claims:

Year	Runway Incursions				Safety Incidents
	A	B	C	D	
2002	0	2	2	2	8
2003	0	0	1	10	5
2004	0	1	2	2	4
2005	0	3	0	0	3 (through January 2005)
Totals	0	3	5	14	20

While we do not minimize in any way the importance and danger of Category A RIs, we feel that all RIs inappropriately were included and deemed as dangerous as Category A incursions during the LAX Master Plan presentations. Therefore, the Master Plan EIS/EIR (and especially the portion related to the runway movement) won approval based upon biased information.

In addition, all the discussion in the SAIP DEIR seems to be premised on the assumption that the RIs are a result of the aircraft moving too fast to stop. There seems to be an effort to ignore the possibility of human error, such as a pilot who simply may have been busy looking up the runway, listening to the radio, and running an after-landing checklist to notice that he is crossing the HOLD bar.

If RIs are truly considered to be the most important safety issue, then the following problems must be addressed:

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Page 3, LAXAAC Comments on SAIP DEIR

• Correcting human errors: Given that human errors are the cause of most of the incursions and incidents, more extensive training programs to eliminate these errors must be included. There is no discussion about improving such training.

• Improving HOLD bars and guard rails: This approach has worked at other airfields. Where is the discussion about how the airline pilot who erroneously taxis beyond the HOLD bar in the current airfield configuration would be prevented from doing so with the new taxiway configuration without improving the HOLD bars?

• Improving all equipment: Where is the discussion about missed or garbled radio transmissions or confusion about runway lighting causing runway incursions?

In fact, the HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004) states that **Runway Incursions have no single or simple cause**. Factors involved in RIs are: controller workload, pilot/controller miscommunication, airfield layout, inadequate visual aids, and human factors.

Section 10 of the HNTB report shows the following FAA facts throughout the U.S. (about RIs):

- Weather is not a factor in 89% of the cases;
- Pilots enter the runway/taxiway without a clearance in 23 %;
- Pilots enter the wrong runway in 10%;
- Pilots are distracted in 17%;
- Pilots are disoriented or lost in 12%;
- Pilots are unfamiliar with ATC or the language in 22%;
- Pilots are unfamiliar with the airport in 19%;
- General Aviation-type aircraft make up 69% of the RIs;
- Low time pilots (< 100 hrs) make up 32%;
- High time pilots (> 3000 hrs) account for 10%; and
- The five aircraft most commonly involved are single engine general aviation airplanes.

In Section 2.3.3 of the DEIR, it is noted that "the center taxiway alternative would provide the greatest benefits during all LAX operating conditions without causing excessive delay." As such, this suggests that the emphasis has shifted from safety (avoiding runway incursions) to minimizing delay. LAWA should not impose the significant impacts recognized in the DEIR on our communities merely to reduce delays.

In Section 1.4, pg I-17, the SAIP does acknowledge that "The areas of known controversy are related primarily to potential aircraft noise exposure in the City of El Segundo relating to the 55-foot relocation of Runway 7R-25L to the south..." Because the aircraft would be starting up in mid-field with engine blast now pointed directly at the nearby community to the South of the airfield and landings (and some take-offs) would be occurring 55 feet closer to the communities to the South and East, new and specific noise studies must be included to measure this additional noise impact, including Single-Event and Time-Above level impacts.

The HNTB report also is the source document for statements about the "end-around Option A alternative" as it affects noise from taxiing aircraft in El Segundo. The DEIR is self-contradicting with respect to this. In one instance, the report says that there is significant noise in El Segundo from taxiing aircraft, using the end-around taxiway. However, it also states that, when compared to all the existing airport noise, this significant noise is NOT significant. It then turns around again to say that the noise is significant and the center taxiway is quieter – ignoring the noise from airplanes that will be 55 feet closer to El Segundo when they takeoff.

Although there is a great deal of data included in the SAIP DEIR, very little of it actually is germane to the specific topic of the impact of the movement of the runway. The DEIR does address construction issues, but

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Page 4, LAXAAC Comments on SAIP DEIR

does not address the impacts this project would have after completion. We also question how diligent the preparation of the SAIP DEIR was in terms of exploring and including alternatives and/or mitigation measures when the study already has indicated that there would be "significant and unavoidable impacts."

It is not entirely true that (as the EIR states, at page I-13) "runway use patterns would revert back to pre-SAIP construction conditions following the relocation of Runway 7R-25L, the potentially significant aircraft noise impacts caused by construction of the SAIP would be temporary." Inasmuch as the South runway will be moved, it is inaccurate to state that "patterns will revert," with respect to noise, given that the pattern of use and the pattern of the areas exposed to 65 CNEL will change.

Moreover, the mitigation measures with respect to noise are half-hearted at best. For example, the DEIR proposes to replace "noisy" equipment with "quieter" equipment only "when technically and economically feasible" (page I-13; IV-188). Who is to judge what is technically and economically feasible? Does that mean if the project has cost over-runs, that no such sound mitigation will occur?

Another half-hearted mitigation measure is found in the statement that periodic compliance testing by LAWA staff "may" be conducted to confirm that equipment on site is well maintained and meets noise emission guidelines (page IV-188). Why would such compliance testing not be required both for noise emission guidelines as well as pollutant emission guidelines?

With respect to the mitigation measures identified at I-13 1.3.5.2 MM-N-8, who would determine what is "as far as possible"? What parameters would be invoked in making decisions? Similarly, with respect to MM-N-9, who would determine what equipment emits the least "possible" noise? What constraints or parameters would be invoked to make decisions? Who would determine what is technically and economically feasible? What would be the bases for these decisions?

There are other noise issues. The proposal to limit the "noisiest" on-site construction activities to avoid sensitive hours is commendable, but the suggestion that early Saturday morning is NOT a sensitive time (page IV-188) is incorrect. Most people working five days a week think that Saturday morning, at least between 6 and 8 a.m., is a noise-sensitive time. So at a minimum, the noise-avoidance should be extended to 8 a.m. on Saturday mornings.

With respect to the measures identified in I-14, MM-N-10, who would determine what is "necessary" during these sensitive times? With respect to the same section, ST-16, who would determine that "every effort" is being made? What constraints would be used to make these determinations?

The DEIR states that the contractor "may" be required to subcontract with an acoustical engineer to develop noise control and monitoring plans for the construction (page IV-187), but why would this be optional?

In addition to our concerns about noise, we have a number of other serious concerns regarding the environmental impacts of the SAIP on our communities, which we do not believe have been adequately addressed or mitigated. As one example, in terms of environmental justice, the realignment of 25L greatly impacts a new section of Lennox and South Central LA. Where are the specific analyses of the additional air and noise pollution impacts on those communities?

In another example, the DEIR states that it would be speculation to attempt to analyze the environmental impacts of their projects in detail (IV-6), yet also states that it is "unlikely" that the projects referenced would contribute appreciably to the SAIP environmental impacts. Isn't that statement rank speculation?

Given that the "SAIP would add incrementally to the already high cumulative impacts in the Los Angeles Basin near LAX (page IV-140), it seems that the proposed mitigation measures for the potential significant impacts to human health are inadequate, given these recognized increased cancer risks and other increased health hazards to the people living or working or going to school near the airport.

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First, the Air Quality Source Apportionment Study, referenced on page I-11, should have been conducted prior to this report. Second, the additional FlyAway sites proposed (pages I-10 and IV-113) should have been implemented by now, and should certainly be implemented prior to the construction. If there were to be additional FlyAway sites in effect prior to the construction, it would help mitigate the cancer risks. Why delay the implementation of the FlyAway sites?

Why did the events of September 11, 2001 interrupt the LAWA study of air quality in the area of LAX, independent of the Master Plan? Any interruption should only have been for the time that airplanes were not flying, not an interruption that continues to this date, as indicated at page IV-131, which states that "LAWA will reinstate this study. . . ."

Why is there no permanent monitoring station for toxic air contaminants located at or near LAX, as stated on page IV-131? Even if this is a SCAQMD responsibility rather than that of LAWA, it would seem that LAWA should request that such a permanent station be implemented.

According to the SAIP, "If net airport peak hour trips exceed 8236" or "78.9 MAP" is exceeded, a re-study shall be incorporated. What form would this re-study take? A new EIR or a new-tiered EIR? Would a re-study include the possibility that LAWA could change those maximum figures? How would the surrounding communities be protected if these maximums were exceeded?

What would happen if the 3.1 MAT limit of cargo were exceeded? What measures are included to enforce this limit?

The SAIP DEIR states that no significant drainage impacts would occur (page IV-21, 4.1.4.2), but the definitions of "significant" and "substantial" in this context are unclear. Also, although the DEIR indicates that certain items to mitigate the drainage impacts are not within their jurisdiction, LAWA does not indicate what it would or could do to attempt to influence those entities with jurisdiction of the issue (page I-6).

Also, the DEIR states that drivers will be instructed to use freeways and nearby arterials, and to avoid residential communities (I-14). Aside from the fact that there are residential communities surrounding these arterials, and adjacent to the freeways, the planners should be more definite about this mitigation measure, and do more than "instruct" the drivers; they should require the drivers to use only those freeways and arterials and to avoid residential areas. What will happen when a "haul route deviation" is reported?

How would LAWA enforce delivery times as noted in I-7, 1.3.2.2 C-1? In the same section under ST-12, how would LAWA "encourage" truck deliveries at night? And how noisy would night deliveries be? What incentives or fees would be instigated? How would they be funded and how would they be monitored?

In I-11, 1.3.4.2AQ 2, school air filters are listed for qualifying public schools, but there is no mention of private schools. Why not include qualifying private schools?

What school districts will be in the study area (I-15) MM-LU-3? It is inconceivable that anyone anywhere believes that noise in a classroom does not hinder the educational process. What could possibly be a replacement threshold other than no learning disruptions?

There must be a comparison of how many aircraft currently are able to land on Runway 25L and immediately cross 25R via the high-speed taxiways versus how many aircraft would be stuck in the center taxiway, waiting a much longer time-frame to cross 25R. Also needed is a clear indication of how many aircraft could be accommodated on the center taxiway, and what happens to aircraft that could not be accommodated there-- would they have to go to the end of 25L and taxi back around 25R and back to the terminals? How many aircraft actually would have to taxi around anyway to get to the Northside terminals?

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There should be a specific study of additional pollutants from aircraft engine exhaust caused by idling engines on incoming aircraft waiting in line to cross Runway 25R. This exhaust must be specifically calculated because this exhaust from all engines is far more polluting than that from aircraft taxiing out from the terminal using just one engine, or (preferably) getting a tow from a tug. Recent studies have shown that specific pollutants from aircraft engines are extremely harmful and can be measured.

There should be a specific study of additional pollutants from aircraft engines entering, stopping and turning into and out of the center taxiway. As the aircraft are maneuvered through right-angle turns, engines would be revving up to move the aircraft after full or nearly full stops. There also should be a specific study of all other pollutants (e.g., from extra braking and tire wear) caused by the slowing down for right-angle turns and starting and stopping in line to cross 25R.

There should be a specific study of how many extra gallons of fuel will be needed to start aircraft up after full or almost full stops to maneuver through the center taxiway and cross Runway 25R. What will be the additional expense to the airlines?

Where is the study of enhancing the west end of 25L and 25R so that aircraft would more smoothly exit the runways and proceed to their respective terminals in lieu of creating the center taxiway?

What would the siting of the realigned 25L be? Is LAWA planning on moving it exactly 55 ft further south from the existing runway? Or will the east end swing slightly more south than the west end? If so, it could have an even greater impact on Lennox and South Central LA.

The runway relocation also would affect the geographic location of the Runway Protection Zone ("RPZ") for that runway. The "relocated" RPZ, ideally an obstacle-free zone, will enclose a part of a condominium building in El Segundo as a result of the runway being moved. Ideally, an RPZ is to be obstacle-free and should at least be addressed in a proposal that adheres to the FAA's Advisory Circular for Airport Design standards (AC 150/5300-13).

Regarding the statements in the DEIR (page I.1, 1.1.1), we would like to know the improvements to the airport implemented since 1984 that were not classified as major, and would appreciate your listing them.

It is not merely the view of the construction activities themselves that impacts the aesthetics of the area (page V-24). The south boundary of LAX already is in a disreputable state. LAX should take it upon itself to clean up the trash along Imperial Highway and better landscape that area. Although the likely impact of the construction along Imperial Highway is not discussed in the DEIR, it seems clear that construction activities will have a significant impact on the aesthetics of Imperial Highway and certainly will not improve the current situation there.

Finally, is there any mechanism by which organizations or individuals will be able to respond to your replies to our comments?

Very truly yours,

Los Angeles International Airport Area Advisory Committee
#1 World Way P.O. Box 92216
Los Angeles, CA 90009-2216

Linda J. Peterson
By Linda Peterson, LAXAAC Chair

SAIP-PC00010

cc: Mayor Antonio Villagarosa
Councilman Bill Rosendahl
Board of Airport Commissioners
Lisa Wellick, LAWA Community Affairs

1825 Via Estudillo
Palos Verdes Estates, CA 90274
September 14, 2005

Los Angeles World Airports
Long Range Planning
Attention: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Subject: Comments on Draft EIR for South Airfield Improvement Project

Los Angeles World Airports:

The enclosed research paper finds that the Draft EIR for the South Airfield Improvement Project (SAIP) centers on a plan to relocate LAX runway 7R-25L, and that this relocation has not been subjected to reasoned analysis regarding its potential functionality and safety enhancement. The SAIP plans to embark on a massive project of nearly \$300 million and over 2 years duration. The project is not justified due to its limited potential to improve safety, its high cost, and a lack of consideration of alternative approaches.

If the SAIP itself is not justified, then the environmental insults that result from its construction and subsequent airfield operation are not justified.

The enclosed paper identifies several alternative approaches to enhancing LAX runway safety by reducing runway incursions. These alternatives offer potentially lower cost, more effective solutions, and, due to their smaller scale, offer potentially lower environmental impacts.

I request your consideration of these alternative approaches and response to these suggestions for a more environmentally acceptable, more effective, and lower cost solution to enhancing LAX runway safety.

Please note the enclosed endorsement from the South Bay Cities Council of Governments of the enclosed paper, its findings and request for your review.

Sincerely,

A. Dwight Abbott
A. Dwight Abbott

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SOUTH BAY CITIES
COUNCIL OF GOVERNMENTS

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September 12, 2005

The Honorable Dwight Abbott, Mayor
City of Palos Verdes Estates
340 Palos Verdes Drive West
Palos Verdes Estates, CA 90274

Subject: LAX South Airfield Improvement Project

Dear Dwight,

The South Bay Cities Council of Governments (SBCCOG) Board of Directors endorses your analysis of the planned southernmost LAX runway move that is part of the LAX South Airfield Improvement Project. After hearing your presentation at the last board meeting, the Board believes that your research provides a thorough examination of the project and rightly questions the justification and effectiveness of the proposed safety enhancements. Your findings are clearly laid out in the paper that you wrote which indicates that reasonable alternative projects have not been examined that may provide more effective, lower cost solutions.

As you know, SBCCOG has actively followed the LAX Master planning process working with our members, the sixteen cities immediately south of the airport. As both neighbors and users of LAX we support efforts to enhance LAX security and safety. We join you in your concern that the proposed modification is not justified based on its limited potential to improve safety, its high cost, and the lack of consideration of alternative approaches.

The SBCCOG endorses your paper and commends it to the attention and review of the EIR process. We do not have the technical background that you have but we do share your concern that this project should be re-visited in light of its questionable cost and effectiveness.

Please include a copy of this letter as part of your submission of comments on the Environmental Impact Report.

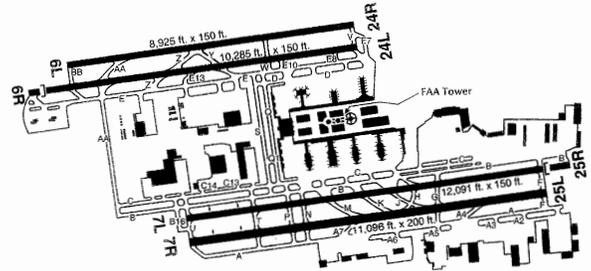
Sincerely,

Susan Y. Dever
Susan Y. Dever, SBCCOG Chair
Councilmember, Lomita

LOCAL GOVERNMENTS IN ACTION

Carson El Segundo Gardena Hawthorne Hermosa Beach Inglewood Lawndale Lomita Los Angeles Manhattan Beach Palos Verdes Estates Rancho Palos Verdes Redondo Beach Rolling Hills Rolling Hills Estates Torrance

Don't Move LAX Runway 25L-7R



A. Dwight Abbott
Mayor, Palos Verdes Estates, CA
August 28, 2005

SAIP-PC00011

SAIP-PC00011

Don't Move LAX Runway 25L-7R

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Executive Summary

The LAX South Airfield Improvement Project (SAIP) plans to destroy the 200 foot wide southernmost runway and to rebuild and relocate it a horizontal distance of 55 feet - that is a move of only approximately one-quarter of its width. This massive project will cost nearly \$300 million and will take 2 years. This restructuring of the runway is not due to its structural or functional inadequacy. In fact, it is the widest of 4 runways at LAX.

The SAIP and LAX Master Plan state that this small relocation is necessary in order to permit building a new taxiway centered between and parallel with the two south airfield runways. The claimed purpose of the new center taxiway is to provide a taxiway reconfiguration that will increase safety by reducing the potential for runway incursions* that have plagued LAX. Most runway incursions at LAX occur when aircraft arriving on the southernmost runway have to taxi across the nearby parallel runway to get to the terminal gates. The planned project will not change the necessity for these runway crossings that are the underlying problem contributing to incursions.

The SAIP cites a NASA Ames Research Center simulation study and its findings as the justification for the effectiveness of the planned center parallel taxiway reconfiguration. However, a close examination of that study finds no such justification. Comments from the LAX air traffic controllers that participated in the simulation study found that the center taxiway configuration introduced traffic manageability, communications and workload problems.

The LAX Master Plan and SAIP look at very few south airport runway and taxiway reconfiguration alternatives. However, there exist runway and taxiway reconfiguration alternatives as well as technology-based alternatives that have not been addressed that may offer lower cost, more rapid and more effective ways to address the runway incursion problem.

The FAA reports that the large majority of LAX runway incursions (85%) are caused by pilot deviations that are the result of a loss of or lack of situational awareness. These are communications and mental errors that are most directly addressed by improved visual and audible information in the cockpit. The FAA points out the importance of improved taxiway and instrument panel displays to provide information addressing runway incursions caused by pilot deviations. The planned project does not address this primary cause of LAX incursions.

In summary, it is not reasonable to conclude based on the information presented in the LAX modernization plans, in the SAIP report, and in the studied FAA and air safety expert reports that the planned massive project to relocate the southernmost LAX runway one-quarter of its width and add a new center taxiway is a prudent or effective safety enhancement.

* Incursion: Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, intending to take off, landing, or intending to land.

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Don't Move LAX Runway 25L-7R

1.0 Introduction

The LAX Master Plan¹ states that runway 25L-7R is to be moved approximately 50 feet south and a center taxiway added in order to reduce the potential for runway incursions. This move, according to the Draft EIR for the South Airfield Improvement Project², is expected to cost \$252,000,000, and perhaps as much as \$288,000,000³. The runway is now 200 feet wide, so the proposed move will move it one-quarter of its width.

The potential runway incursions that this massive project is supposed to reduce are said to occur when landing traffic on runway 25L has to taxi to cross over the parallel runway 25R to reach the terminal. This planned project will not change that cross-over requirement.

Clearly, a massive project that will cost over a quarter billion dollars and not remove the underlying problem that initiated it should bear close examination.

2.0 Center Taxiway Simulation Study

Although the planned runway rebuild and need to reduce LAX runway incursions have been extensively examined, unfortunately little information is available on how effective the changed runway and taxiways will be. The Draft EIR for the South Airfield Improvement Project (SAIP) (Sec II.2.1 & Appendix B) includes more information on alternative runway configurations than do its predecessor documents, including the LAX Master Plan. However, even the SAIP does not address the potential effectiveness of the chosen plan to move the runway 55 feet and build a new center taxiway.

The SAIP states, "In a joint study with the FAA and NASA Ames Research Center, air traffic controllers found that the center parallel taxiway offered an effective solution to the primary cause of the most severe types of runway incursions experienced at LAX." That joint study is titled "Los Angeles International Airport Runway Incursion Studies – Phase III, Center Taxiway Simulation (published on July 31, 2003)". A close examination of that report finds no such finding of effectiveness as will be discussed later.

The simulation study was done in the NASA FutureFlight Central (FFC) simulator which is a large room with surrounding walls covered with computer-driven display screens simulating the LAX traffic control tower windows. The room duplicated the LAX tower layout, controller positions, and view out the window as closely as possible. Information displays in the FFC simulator were configured as closely as possible to their counterpart displays in the LAX tower.

A group of four LAX controllers participated in the simulation and each worked twelve 45-minute scenarios over a three-day period. The approach for this study was to present a realistic environment for the controllers, such that they could operate in the FFC simulator tower as they

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would in the LAX tower. Both the north and south sides of LAX were simulated, with a complement of 22 airlines and an aircraft mix representative of LAX in the summer of 2000.

Thirty-one people participated in each simulation run. They included 24 pseudo-pilots to "pilot" the controller-directed and computer-simulated airplane movements at computer workstations in a room downstairs from the simulated tower.

Controllers were rotated by tower position to ensure that there was no response bias produced by over-familiarity with the scenario, fatigue, boredom, or particular expertise in a position by any individual. No controller worked the same position for the same scenario more than once. Controllers were instructed to direct air and ground traffic as they would at LAX, given the operational rules for the simulated center taxiway.

2.1 Study Results

The objective of this simulation was to subjectively evaluate a center taxiway concept at LAX. The study results represent the averages for the 9 data-collection runs conducted during the simulation. Controllers were asked to rate each of 8 questions relative to LAX traffic as it existed pre-9/11. Results for the South-side ground controller position controlling the simulated center taxiway are as follows:

Question 1: The amount of coordination required with the controllers on my side of the airport was: About the same. (no change)

Question 2: The amount of coordination required with the controllers on other side of the airport was: Slightly less. (good)

Question 3: The amount of communication with the pilots was: Somewhat greater. (bad)

Question 4: The overall efficiency of this operation was: Slightly decreased. (bad)

Question 5: In my estimation, relative to pre-9/11 LAX operations, the potential for a runway incursion on this run was: Slightly greater. (bad)

Question 6: The level of traffic complexity in my control area was: Somewhat greater. (bad)

Question 7: I would rate my ability to manage the traffic flow under this scenario: Slightly more difficult. (bad)

Question 8: The most critical problems in this scenario were (name three): Communications, workload, manageability of traffic flow.

In summary, the answers are striking in that they DO NOT FAVOR the center taxiway concept. Only one answer (#2) is positive, one answer is no difference (#1), and all other answers are negative! Especially troubling is answer #5 that indicates that, on average, the ground controllers' judgment found that the potential for runway incursions was slightly GREATER!

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The answers to question #8 indicating difficulty with managing traffic and workload also are troubling. How can it reasonably be concluded that this simulation study results provide the justification for a massive runway restructuring and new center taxiway?

Additional reported results from the study do not favor a center taxiway. Average arrival aircraft taxi time on south runways increased from 7.5 to 8.7 minutes. Average departure aircraft taxi time increased from 12.9 to 13.5 minutes.

South side ground controller comments following the simulation experience included:

"I think the center taxiway increases the workload almost too much, because right now it's not so hard, but if we are going to have to do all the crossovers or input in the 'ARTS' it's a lot of work for that one controller."

"Having traffic on the taxiways for a longer period of time adds to the complexity. Longer they are on the taxiway the more calls you are going to have to make."

Based on the controllers' answers and comments it is apparent that the center taxiway introduces traffic on that taxiway that creates traffic manageability, communications, and workload problems.

Finally, the NASA Ames LAX Center Taxiway Simulation Report bears a caveat in front that states, "Due to inherent limitations of virtual reality, decisions should not be based solely on results obtained in FutureFlight Central." But LAWA's decision to proceed with the center taxiway is, in fact, based on that report. No other effectiveness studies are cited.

3.0 Accommodating the New Airbus A380

The FAA has established requirements for airports to accommodate the Class VI New Large Aircraft (NLA) such as the Airbus A380. The current LAX runway 25L-7R and taxiways can handle the A380 with perhaps some widening and filleting of taxiway corners and "judgmental oversteering" during taxi by the A380 pilot. The FAA prefers a 200 foot wide runway, as is 25L-7R, for the A380. All other LAX runways are 150 feet wide. Airbus and LAX are working to try to clear A380 operations on the 150 foot wide runways⁵.

The proposed 55 foot move of runway 25L-7R and the new center taxiway have almost nothing to do with A380 operations, per se. The current centerlines of parallel runways 25L and 25R are 750 feet apart. The FAA specifies a 400 foot separation between runways and taxiways for Group V aircraft (B747) operations, thus the desire for moving runway 25L an additional 55 feet to add the center taxiway. The FAA specifies for Group VI aircraft (A380) a separation distance between runways and taxiways of 600 feet, so the proposed center taxiway will not meet that requirement. Traffic use of the center taxiway will be banned whenever an A380 is using runway 25L or 25R, and, similarly, when an A380 is on the center taxiway, traffic on both 25L and 25R will be banned based on the FAA specified minimum separation requirements. This restriction resulting from A380 operations does not occur with the current 750 foot separation of runways 25L and 25R. It should be noted that during the near year-long shutdown of runway 25L for relocation that no runway at LAX will meet current FAA A380 operational specifications. LAX is hoping (assuming) that the FAA will permit non-conforming use of runway 25R for the A380.

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4.0 Runway and Taxiway Configuration Alternatives

Based on the massive project size and cost of moving runway 25L-7R a mere 55 feet together with the minimal, at best, justification of a new center taxiway for reducing runway incursions, it is most appropriate that all possible alternative runway/taxiway configurations be explored. Appendix B of the SAIP report explores and rejects the potential of "end-around" taxiway configurations, often called perimeter taxiways, that would construct a new taxiway to the south and west of runway 25L, to guide aircraft around the end of runway 25R thus avoiding the runway 25R crossover that invites incursions.

Although the SAIP puts great reliance on the findings of the NASA FFC center taxiway simulation study, it chooses to ignore and not mention a similar NASA FFC perimeter taxiway simulation study⁶. That study was done for Dallas/Fort Worth International Airport (DFW) and involved both pilots and controllers in the perimeter taxiway simulation. The report found that "Pilot participants thought the perimeter taxiways (PTs) improved efficiency and increased safety by reducing the potential for runway incursions. They also speculated that PTs would improve airline performance rates and reduce both pilot and controller workload due to less frequency congestion and a reduction in hold-short instructions." Further, "controllers felt that the volume of communications was significantly reduced, and that they used less verbiage because concerns about crossings and reliance on pilot readbacks were alleviated."

Perimeter or end-around taxiway configurations for LAX were rejected based on the projected increased aircraft noise to the adjoining city of El Segundo and the additional land acquisition required for the taxiways. However, several new taxiway alternatives exist that have not been addressed in the series of LAX modernization reports that may mitigate both noise and runway incursion concerns. They are discussed below.

4.1 Widen Runway 25L-7R

Three-quarters of the 200 foot width of runway 25L-7R is in the right place based on the proposed 55 foot move. Rather than removing and rebuilding the 200 foot wide runway only 55 feet south of its present location, an alternative would simply add a new 55 foot wide "shoulder" on the south edge resulting in a 255 foot wide runway. If the centerline was then moved 55 feet south and the northern 55 feet of width paint striped for non-use, in essence a new 200 foot runway would be created 55 feet south of the present one, but with a safer concrete shoulder on the north side.

To comply with the FAA-specified 1.5 degree transverse cross slope on the runway (for drainage) the southern edge of the suggested new 55 foot runway widening strip would have to be 1.44 feet lower than the current runway edge. This would appear to be manageable.

The crown of this alternative runway configuration would remain at its current location which would be 55 feet north of the new centerline. This should not affect aircraft operations. Aircraft typically land offset from the centerline in a "not-exactly-level" attitude routinely. We drive cars on highways having a built-in cross slope for drainage and don't notice a "not-level" attitude. This alternative approach to moving runway 25L-7R 55 feet should greatly reduce the cost and construction time while still providing the space to add the proposed new center taxiway.

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4.2 Center-Around Taxiway

The "end-around" taxiway configuration referred to above offered the advantage of removing the crossovers of runway 25R by aircraft arriving on 25L that can lead to incursions. This "no-crossover" advantage can be retained and the end-around taxiway's disadvantages of increased noise to El Segundo and increased land acquisition requirements can be removed by installing a new center taxiway that leads aircraft around the end of runway 25R rather than to taxiways that cross 25R as currently planned. This "center-around" taxiway would completely remove the runway 25R crossover incursion risks still remaining with the planned center taxiway configuration.

The NASA FFC simulation facility also conducted a simulation study for LAX to examine the potential of a few "end-around" taxiway concepts. These end-around alternatives proposed a modification to the airport's Bravo taxiway (the "B-16 extension") which would allow controllers to route runway 25L arrivals to the gate complexes via taxiway Alpha and the B-16 extension without crossing the parallel 25R runway. Simulation results reported that "Controller subjective data indicated that the potential for runway incursions under this alternative (3a) was significantly reduced when compared to the baseline LAX operation", and that "The B-16 alternatives were regarded as resulting in operations "more easily managed" than those currently in use at LAX." The critical problems of workload and manageability of traffic flow reported by controllers in response to Question #8 for the center taxiway simulation were not reported in the end-around studies.

These simulation study results suggest that there is merit in a center-around taxiway concept that would retain the "no runway crossover" advantages without incurring the noise and land acquisition disadvantages found for the end-around alternatives examined in the SAIP Appendix B.

A potential disadvantage of the center-around concept is the increased taxi time for arriving aircraft that it may create. This time increase may not be large. The Reference 7 simulation studies of the "B-16" end-around alternatives reported a 6-13% increase in aircraft departure rates in addition to the "easier than LAX today" traffic manageability. Runway 25L aircraft arrivals would use less braking and thrust reversal (less noise) to arrive with little delay at far end of 25L for the center-around taxi transition to the gate. Similarly, the DFW perimeter taxiway study⁹ found that although arrival taxi time increased that departure taxi time as well as aircraft "holds" decreased. A slightly increased arrival taxi time should trade favorably with the large gain in safety resulting from the essentially total removal of runway 25R incursion risk.

4.3 Exempted Center Taxiway

The current spacing between parallel runways 25L-7R and 25R-7L is 750 feet. This is only 6.3% less than the FAA-specified 800 feet separation for inserting a new center taxiway capable of handling Group V (B747) aircraft. The lateral relocation of runway 25L-7R a distance (55 feet) about one-quarter of its width at a cost of more than a quarter billion dollars is a high cost to pay for a 6.3% runway separation deficiency.

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is to force aircraft to turn onto a parallel center taxiway, thus eliminating the "straight shot" to runway 25R that exists on the current high-speed exits."

It would appear that if the high-speed exits from the runway were reconfigured to a "low-speed" configuration, then the aircraft speed and tendency to overshoot the runway 25R hold-short bars would be reduced. With a new center taxiway the high-speed exits may need to be reconfigured to a lower speed exit in any case. The placement of the center taxiway will eliminate the "straight shot" to runway 25R referred to and provide a relatively short distance of only about 550 to 600 feet for the aircraft to slow between departing the runway and arriving at the center taxiway where it has to make a slow turn onto the center taxiway. Controllers may prefer a higher speed runway exit to quickly clear the runway, but the high speed exit coupled with a new center taxiway that essentially cuts in half the time to slow the aircraft as it departs the runway and before turning may lead to even more troubles than the current taxiway configuration.

4.6 Reconfigure Taxiways, No Center Taxiway

The new center taxiway would not, if used as planned, eliminate the aircraft crossings of runway 25R that are stated to be the underlying source of incursion risks. As now planned, the primary function of the new center taxiway is to slow arriving aircraft to avoid the "straight shot" from runway 25L across to runway 25R and to provide a center "staging" area between runway 25L and 25R. It may be possible to achieve these same objectives without adding the new center taxiway that creates the requirement for the high-cost, short-distance (55 feet) relocation of runway 25L-7R.

Essentially the same aircraft taxi patterns that would be achieved with the new center taxiway can be achieved by only adding center "stubs" that do not connect to make a continuous center taxiway. The center stub would be a short stretch of taxiway parallel and centered between runways 25L-7R and 25R-7L that would be part of the reconfigured taxiways that now lie between and connect the two runways. The current taxiways between runways 25L-7R and 25R-7L would be reconfigured into an "S shape" that would include the "center-hold" stub. Each taxiway would be a separate taxiway as now exists and would serve the same function as currently, but with the elimination of the "straight shot" and the addition of a center-hold area. Arriving aircraft would be directed to a designated taxiway and to hold at the center-hold area if conflicting traffic that risked an incursion was present.

This reshaping of the existing taxiways between runways 25L-7R and 25R-7L could avoid the great cost of relocating runway 25L-7R, avoid the lengthy closing of the runway, and provide the same incursion risk reduction as the proposed center taxiway.

5.0 LAX Runway Incursions

The FAA keeps extensive statistics on runway incursions⁹. It has determined that during the 4-year period 2000-2003 LAX reported more runway incursions than any other airport in the nation. However, the characteristics of these LAX incursions are unlike the national averages. LAX incursions were attributed 85% to pilot deviations compared to the national average of 57%, and 9% to controller errors compared to the national average of 23%. This difference at LAX is easily understood. Two thirds of all incursions at LAX occurred on runway 25R and the

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The increased risk associated with a lesser runway separation than 800 feet is not a step-function increase. Rather, as runway separation less than 800 feet occurs, a gradual (not sudden) increase in risk occurs. Similarly, as runway separation of greater than 800 feet occurs, a gradual decrease in risk occurs. The specified 800 feet separation is not a "magic" number, but rather a judgmental "rounded" one.

The enormous cost of moving runway 25L-7R might be avoided and a new center taxiway approved by seeking operational restrictions on the center taxiway use that would lead to the FAA approval of "non-conforming" use. This is the anticipated approach to using the 150 foot wide LAX runways (other than 25L-7R) for A380 operations when the FAA preferred runway width is 200 feet.

There are many potential operational limitations that might be considered in order to gain non-conformal use of a new center taxiway with the current 750 foot runway separation. Runway 25L is about 2 miles long and can be thought of as having a "fast" first mile (for arriving aircraft) and a "slow" second mile for taxing aircraft. Risk could be reduced by restricting turn-offs to the center taxiway to slower "last half" traffic. This would be accomplished by not turning arriving aircraft off of runway 25L until taxiway "Mike" or later. Such limitations would be consistent with the key points of the FAA's Runway Safety Blueprint 2002-2004⁸, that states, "Collision-avoidance safeguards need to be developed for the high-energy segment of runways, where aircraft are accelerating for take-off or decelerating after landing"

Alternative operational restrictions might be suggested by the FAA experts that work with other large airports in the nation and are aware of risk reducing operational restrictions that could permit a non-conforming center taxiway.

4.4 Combined Center-Around and Exempted Center Taxiway

An alternative operational restriction that might permit a non-conforming center taxiway would use the center taxiway only as an end-around "exitway". Arriving aircraft turning off of runway 25L or 25R on to the center taxiway would stay parallel to, and centered between, the two runways and exit by going to the end and around runway 25R. This would eliminate the risk associated with aircraft on the short taxiways connecting the runways and the center taxiway, viz., aircraft arriving on 25L would never approach runway 25R for crossing on a taxiway to the gate.

This "center taxiway as only an exitway" operational restriction may have to be applied only to larger Group V (B747) and Group VI (A380) aircraft in order to achieve non-conforming center taxiway status. Current LAX runway 25L-7R and 25R-7L lateral separation of 750 feet may be adequate to permit non-restricted use of a new center taxiway for smaller aircraft.

4.5 Remove High-Speed Runway Turnoffs

Reference 4 states that "The most common runway incursions at LAX occur when an aircraft arriving on runway 25L exits at one of the high-speed exits, and then fails to stop the aircraft before overshooting the hold-short bars for runway 25R. The intent of the center taxiway concept

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majority of these occurred at the taxiway "Mike" and "November" intersections due to aircraft that failed to hold short of runway 25R after landing on 25L.

These data indicate a well defined and localized incursion problem at LAX. It may be expected that a targeted program to reduce incursions at these two intersections would have the greatest payoff. It should be noted that taxiway Mike is a high-speed turnoff with the "straight-shot" through to runway 25R. Reference 4 identified the "straight-shot" from runway 25L to runway 25R as especially troublesome. The proposed new center taxiway will be twice as close as runway 25R for an arriving aircraft turning off at the high-speed Mike taxiway, so it would appear to exacerbate the slow-down and "hold short" problem.

The new center taxiway configuration, as planned, retains the necessity for the aircraft arriving on runway 25L to cross runway 25R, so the opportunity for incursions is not removed. At best, the proposed center taxiway configuration slows aircraft crossing 25R which should portend reduced severity of incursions. It will, however, add to the number of tower-aircraft communications, and this added traffic management complexity, as noted in the simulation study results, will provide additional opportunity for the human errors associated with communications.

5.1 Runway Incursion Characteristics

The FAA's Runway Safety Blueprint 2002-2004⁸, identifies 5 key points. One states, "Human factors is (sic) the common denominator in every runway incursion." Runway-taxiway configuration may be an underlying contributor to runway incursions, but the primary causes are communications and mental errors. These errors include failures in readback, hearback, non-compliance after readback, forgotten aircraft, and other human errors.

The FAA's Runway Safety Report⁹ states that "The crossing of a hold short line without a clearance from air traffic control – the pilot fails to follow the controller's hold short instruction or the pilot correctly acknowledges the hold short instruction but continues into the runway environment – is the predominant pilot error that results in a runway incursion." This is the predominant problem at LAX.

The FAA has had active programs for over a decade aimed at reduction of runway incursions and their severity. Data trends indicate that these programs have been effective. These programs include coordinated efforts with the aviation community such as the Commercial Aviation Safety Team (CAST), General Aviation Joint Steering Committee (GA JSC), and a collaboration of the two, the Runway Incursion Joint Safety Implementation Team (RJISIT). The current FAA Runway Safety Blueprint is based on the work of these programs. The initial Blueprint in 2000¹⁰ identified 7 thrusts for improved runway safety and the updated Blueprint in 2004⁸ evolved these thrusts into 8 goals. None of these thrusts and goals focused on runway-taxiway configuration. Areas identified as key for improving runway safety included training, communications, procedures, airport markings, safety and situational awareness, and technology.

Because the LAX incursions are characterized as 85% pilot deviations and these deviations are "human error", a runway safety focus at LAX needs to incorporate those key thrusts/goals applicable to these pilot errors.

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5.2 Visual and Audible Taxiway Signals

To reduce LAX runway incursions that are 85% pilot errors the pilot needs improved visual and audible cues that will confirm controller directions and signal proper aircraft movement. These improved cues are available through "low tech" methods such as taxiway paint markings and "high-tech" methods including cues based on remote traffic sensors and computer processed and displayed information.

Revised holding position markings, surface-painted holding position signs, and enhanced taxiway centerlines have been shown to enhance pilot awareness of position⁹. It is anticipated that future changes and additions to surface markings and signs can add to pilot awareness of aircraft position. Additional information is needed by the pilot to enhance and verify controller directions. Technology is providing many opportunities to the pilot to verify controller directions and to verify that incursion risks are not present.

The FAA developed and deployed the Airport Movement Area Safety System (AMASS) at several major airports including LAX. This is a surface area radar system that utilizes safety logic software to predict potential collisions and provide visual and aural warnings to traffic controllers. It has had limited success due to warnings coming late and false warnings. The NTSB stated¹¹ that "In at least one recent accident (LAX, August 2004) there are strong indications that AMASS alerted the controller beyond "the point of no return" (that is, after it would have been possible to avoid the collision)." It stated further that "the Safety Board is concerned that this system primarily relies on the controller to communicate with flight crews to prevent a ground collision", and that "Until there is a system in place to positively control ground movements of all aircraft, with direct warning to pilots, the potential for this type of disaster will continue to be high."

Advanced technology provides, and will provide, increasing opportunities to provide direct incursion warnings to the flight crew. A Runway Status Lights (RWSL) system now in development and test detects the presence and motion of aircraft on runways and taxiways, assesses possible traffic conflicts, and illuminates runway entrance lights to indicate if it is unsafe to cross.

Cockpit-located moving map displays of airport traffic have great promise in providing information for incursion prevention direct to the pilot. The increasing availability of satellite-based Global Positioning System (GPS) information in the cockpit, software to process information on all area traffic, and instrument panel displays offer a potential capability for an independent means to supplement the traffic control management now done by radar systems. The RI JSIT (Ref 8, Appendix A) stated that "the moving map display systems were the most powerful intervention for runway incursion prevention", and that "nearly half of these deviations could be prevented using a moving map display with only GPS own-ship information."

These opportunities for improved visual and audible pilot signals provide a means of directly targeting the "85%" pilot errors causing incursions at LAX.

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6.0 Summary

It is generally accepted that LAX needs modernization, especially to enhance security and safety. This paper is not intended to diminish the urgency of these needs. To the contrary, it recognizes that these needs are immediate, and, accordingly, security and safety enhancements should be addressed that can lead to near-term, cost-effective enhancements. This paper points out that the planned relocation of runway 25L-7R does not address security, is massive in cost, is not a near-term enhancement (requiring more than 2 years of construction), and with limited effectiveness in reducing runway incursions it can not be a cost-effective enhancement.

The conclusions that can be drawn from the research reported here include:

- The LAX runway incursion problem is well understood and focuses on pilot deviations resulting when aircraft arriving on runway 25L fail to "hold short" or cross over 25R without proper clearance.
- The NASA Ames FutureFlight Central simulation study provides inadequate justification for the claimed effectiveness in reducing runway incursions by relocating runway 25L-7R and adding a center taxiway.
- The planned center taxiway addition will not diminish the requirements for arriving aircraft "hold shorts" and crossovers of runway 25R that are the underlying contributor to past incursions.
- The large majority of LAX runway incursions (85%) are caused by pilot deviations that are the result of a loss or lack of situational awareness. The planned project does not address this primary cause.
- There exist runway and taxiway reconfiguration alternatives that have not been addressed that may offer lower cost, more rapid and more effective ways to address the runway incursion problem.

In summary, it is not reasonable to conclude based on the information presented in the LAX modernization reports, in the SAIP Draft EIR, and in the studied FAA and air safety expert reports that the proposed massive project to relocate runway 25L-7R one-quarter of its width and add a new center taxiway is a prudent or effective safety enhancement.

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September 8, 2005

Los Angeles World Airports
Long Range Planning Dept.
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7301 World Way West, Room 308
Los Angeles, CA 90045-5803

FAX: 310-614-0686
Page 1 of 7

Re: South Airfield Improvement Project (SAIP)
Draft Environmental Impact Report (DEIR)

Dear Ms. Hoo:

The SAIP DEIR is a document to enlarge LAX to accommodate the A380 and other New Large Aircraft (NLA). The project does not propose the most cost- or safety-effective measures to eliminate Runway Incursions.

This is especially discouraging in light of the stated goal of LAWLA to achieve a regional solution to air traffic problems. LAWLA is in the enviable position of controlling four separate air fields - and two of them, Ontario and Palmdale, could be renovated a far less cost to accommodate NLAs.

Particularly disturbing is the ill-advised speed in accepting bids on the project before the EIR process was completed. Changes, additional studies, and/or reevaluation of the project should be considered; but this will be a legal morass if the contracts have already been drawn up and/or executed, or even if bids have been made based upon the initial assumptions in the EIR.

The study indicates that there would be "significant and unavoidable impacts," yet there was little in the SAIP EIR in terms of exploring and including alternatives and/or mitigation measures, especially for the post-construction end-result of the SAIP. These must be included.

The SAIP does not address the impacts this project would have on surrounding communities in terms of noise, air pollution, and traffic impacts after the construction phase. It does

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indicate problems expected to arise during construction, but largely ignores the long-term impacts.

The SAIP DEIR states that "this document does not reevaluate project alternatives." However, during the Stakeholder process a study of Runway Incursions (RI) was cited as the reason for the project but LAWA declined to identify the categories of incursions. Therefore, discussion of the RI's is germane to the SAIP DEIR.

How many Safety Incidents (SI) were included in the count of "incursions" in the LAWA-cited study? Were any of the incursions or incidents caused by anything other than human error?

The five Category A RIs for 2002 that were reported in the Master Plan EIS/EIR were challenged during the review process. However, when the comments were published, LAX again stated that these incursions had happened.

Using LAX charts and FAA tower information from 2002 to 2005, there are no Category A RI's that match the LAX claims. On the contrary, these figures show the following information:

Year	Runway Incursions				Safety Incidents
	A	B	C	D	
2002	0	2	2	2	8
2003	0	0	1	10	5
2004	0	1	2	2	4
2005	0	3	0	0	3 (through January 2005)
Totals	0	3	5	14	20

The danger and importance of eliminating Category A RI's cannot and should not be minimized in any way. Neither should they be used as fuel for a bully pulpit to frighten people. There is more than a strong possibility that all categories of RI's were included and deemed as dangerous as Category A incursions during the LAX Master Plan presentations. Therefore, the Master Plan EIS/EIR (especially the SAIP) won approval based upon biased information.

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All the discussion in the SAIP seems to be based on the assumption that the RI's are a result of the aircraft going too fast to stop. The probability that pilots may simply have been busy and did not notice that they were crossing the HOLD bar was ignored.

If RI's are truly considered to be the most important safety issue, then the following problems must be addressed:

- Programs which address better or more extensive training of personnel to eliminate human errors must be included, especially in light of the fact that human errors are the cause of most of the incursions and incidents.
- Measures to improve HOLD bars, guard rails, runway lighting, and radio transmissions must be included. This approach has worked at other airfields. In fact, the center-line taxiway does nothing to deter the airline pilot who erroneously taxis beyond the HOLD bar in the current airfield configuration from doing so with the new taxiway configuration without improving the HOLD bars.

The HNTB Final Report of Southside Airfield and New Large Aircraft Study (April 2004) states that Runway Incursions (RI's) have no single or simple cause. Factors involved in RI's are: controller workload, pilot/controller miscommunication, airfield layout, inadequate visual aids, and human factors.

Section 10 of the HNTB report shows the following FAA facts throughout the U.S. (about RI's):

- Weather is not a factor in 89% of the cases
- Pilots enter the runway/taxiway without a clearance 23 %
- Pilots go on the wrong runway 10%
- Pilots are distracted 17%
- Pilots are disoriented or lost 12%
- Pilots are unfamiliar with ATC or the language 22%
- Pilots are unfamiliar with the airport 19%
- General Aviation-type aircraft make up 69% of the RI's
- Low time pilots (< 100 hrs) 32%
- High time pilots (> 3000 hrs) 10%
- The 5 aircraft most commonly involved are single engine general aviation airplanes

In the third paragraph of Section 2.3.3 of the SAIP, it is noted that "...the center taxiway alternative would provide the greatest benefits during all LAX operating conditions without causing excessive delay." The emphasis here is clearly on through-put and minimizing delay, not on safety.

Section 2.1 also claimed that: "The airfield modification...(would) improve the ability of LAX to handle new large aircraft (NLA), thereby helping the airport sustain and advance its role as the region's international gateway. As of July 2003, seven of the int'l air carriers at LAX

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currently using the B747 placed orders for the Airbus A380." The airlines will use LAX whether or not the SAIP project is built. They could use Ontario or Palmdale, if encouraged to do so.

According to the HNTB study, the center taxiway should reduce the likelihood of runway incursions in the south airfield. A project costing \$38 million to only reduce the likelihood of RI's is not cost effective - especially when other procedures were not considered. Again, the SAIP appears to be an accommodation for NLA rather than for safety.

In Section 1.4, pg I-17, the SAIP does acknowledge that "The areas of known controversy are related primarily to potential aircraft noise exposure in the City of El Segundo related to the 55-foot relocation of Runway 7R-25L to the south..."

Because the aircraft would be starting up in mid-field with engine blast now pointed directly at the nearby community to the South of the airfield, landings (and some take-offs) would be occurring 55 feet closer to the communities to the South and East, and flight paths would shift further South, new and specific noise studies must be included to measure this additional noise impact, including Single-Event and Time Above level impacts.

The statement in the SAIP (page I-13) that "runway use patterns would revert back to pre-SAIP construction conditions following the relocation of Runway 7R-25L, the potentially significant aircraft noise impacts caused by construction of the SAIP would be temporary," is not valid. The 65dB CNEL contour will be affected, as well as Single Event and Time Above noise impacts.

On page I-13, IV-188, the SAIP DEIR states that "noisy" equipment will be replaced with "quieter" equipment only "when technically and economically feasible." Who would judge what is technically and economically feasible? Would cost over-runs eliminate sound mitigation?

On page IV-188, the SAIP DEIR states that periodic compliance testing by LAWA staff "may" be conducted to confirm that equipment on site is well maintained and meets noise emission guidelines. This testing must be mandatory and fees imposed for non-compliance for noise and air pollution guidelines. In addition, Saturday mornings should be included as noise sensitive hours. Saturday mornings.

On page IV-187 the SAIP DEIR states that the contractor "may" be required to subcontract with an acoustical engineer to develop noise control and monitoring plans for the construction. Noise control and monitoring plans for the construction must be mandatory.

The SAIP DEIR (in I-14) states that drivers will be instructed to use freeways and nearby arterials, and to avoid residential communities. This mitigation measure must be further delineated. Drivers should be mandated to use the recommended roads. There must be a monitoring, and fee, or other disincentive, to enforce the usage of the "haul routes."

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The runway relocation would also affect geographic location of the Runway Protection Zone (RPZ) for that runway. The "relocated" RPZ, ideally an obstacle-free zone, will enclose a part of a condominium building in El Segundo as a result of the runway being moved. Ideally, an RPZ is to be obstacle-free and should at least be acknowledged in a proposal that supposedly adheres to the FAA's Advisory Circular for Airport Design standards (AC 150/5300-13).

As stated on page IV-140, the "SAIP would add incrementally to the already high cumulative impacts in the Los Angeles Basin near LAX." The proposed mitigation measures are inadequate for the potential significant impacts to human health. The Air Quality Source Apportionment Study, referenced on page I-11, should have been concluded prior to this report. The additional FlyAway sites noted on pages I-10 and IV-113 should have been implemented prior to the release of the SAIP DEIR.

Stating (IV-6) that it would be speculation to analyze the environmental impacts of the project, yet it is deemed "unlikely" that the project would contribute appreciably to the impacts. This is rank speculation. Detailed studies must be made of the potential environmental impacts.

The LAX study of air quality in the area of LAX, should have been concluded prior to the issuance of the SAIP DEIR and the study included in the DEIR. Granted the events of 9/11 put a halt to the study, but it should have been reinitiated and concluded by now.

Why is there no permanent monitoring station for toxic air contaminants located at or near LAX, as stated on page IV-131? LAWA should demand that the appropriate agency install the station.

According to the SAIP, "If net airport peak hour trips exceed 8236" or "78.9 MAP" is exceeded, a re-study shall be incorporated. What form would this re-study take? A new EIR or a new-tiered EIR? Would a re-study include the possibility that LAWA could change those maximum figures? What additional mitigation measures are included to protect the surrounding communities if these maximums were to be exceeded?

What would happen if the 3.1 MAT limit of cargo were exceeded? What measures are included to monitor and/or enforce this limit?

How would LAWA "encourage" (P. 2-1, 1.2) other airports to assume a greater load? What incentives, fees, or other methods would be instigated? How would they be funded? How would they be monitored? Why accommodate the NLA's at LAX when the airlines should have been encouraged and instructed to utilize Ontario or Palmdale?

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Although the SAIP indicates that certain items to mitigate the drainage impacts are not within their jurisdiction, LAWA does not indicate what it would or could do to attempt to influence those entities with jurisdiction of the issue (I-6). And in p IV-21, 4.1.4.2 the SAIP states that no significant drainage impacts would occur. Who would define and determine what is significant or substantial?

How would LAWA enforce construction delivery times as noted in 1-7.1.3.2.2 C-1? In the same section under ST-12, how would LAWA "encourage" truck deliveries at night? And how noisy would night deliveries be? What incentives or fees would be instigated? How would they be funded and how would they be monitored?

In (1-11) 1.3.4.2AQ 2, school air filters are listed for qualifying public schools, but there is no mention of private schools. Why were qualifying private schools not included?

In (1-13) 1.3.5.2 MM-N-8: Who would determine "as far as possible" what parameters would be invoked in making decisions? Same section in MM-N-9, who would determine what equipment emits the least "possible" noise? What constraints or parameters would be invoked to make decisions? Who would determine what is technically and economically feasible? What would be the bases for these decisions?

In (1-14) MM-N-10, Who would determine what is "necessary" during these sensitive times? Same section, ST-16, who would determine that every effort would be made? What constraints would be used to make these determinations?

What school districts will be in the study area (1-15) MM-LU-3? It is inconceivable that anyone anywhere believes that noise in a classroom does not hinder the educational process. What could possibly be a replacement threshold other than no learning disruptions?

In terms of environmental justice, the realignment of 25L greatly impacts a new section of Lennox and South Central LA. Where are the specific analyses of the additional air and noise pollution impacts?

There must be a comparison of how many aircraft currently are able to land on Runway 25L and immediately cross 25R via the high-speed taxiways vs how many aircraft would be stuck in the center taxiway, waiting for a much longer time-frame to cross 25R. Also needed is a clear indication of how many aircraft could be accommodated on the center taxiway, and what happens to aircraft that could not be accommodated there - would they have to go to the end of 25L and taxi back around 25R and back to the terminals? How many aircraft actually would have to taxi around anyway to get to the Northside terminals?

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There must be a specific study of additional pollutants from aircraft engine exhaust caused by idling engines on incoming aircraft waiting in line to cross Runway 25R. This exhaust must be specifically calculated because this exhaust from all engines is far more polluting than the pollution from aircraft taxiing out from the terminal using just one engine, or (preferably) getting a two from a tug. Recent studies have shown that specific pollutants from aircraft engines are extremely harmful and can be measured.

There must be a specific study of additional pollutants from aircraft engines entering, stopping, and turning into and out of the center taxiway. All engines would be starting the aircraft moving after full or almost full stops as the aircraft is maneuvered through right-angle turns. Again, this will be all engines on the aircraft as they are still about to cross a runway.

There must be a specific study of all other aircraft pollutants (e.g., from extra braking and tire wear) caused by the slowing down for right-angle turns and starting and stopping in line to cross 25R.

There must be a specific study of how many extra gallons of fuel will be needed to start aircraft up after full or almost full stops to maneuver through the center taxiway and cross Runway 25R. What will be the additional expense to the airlines?

Where is the study of enhancing the west end of 25L and 25R so that aircraft would more smoothly exit the runways and proceed to their respective terminals in lieu of creating the center taxiway?

What would the siting of the realigned 25L be? Is LAWA planning on moving it exactly 55 ft further south from the existing runway? Or will the east end swing slightly more south than the west end? This could make even more impact on Lennox and South Central LA.

It is ironic that LAWA is suggesting that the imperiled wildlife be transferred to the former El Toro Marine Base (instead of air traffic). There is a much more viable location for wildlife relocation: the Westchester Bluffs. Environmentally speaking, it is far superior to keep wildlife as close to its original habitat as possible.

I look forward to your responses to my comments and questions.

Sincerely,



Danna Cope

SAIP-PC00012



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**Public Comments on
South Airfield Improvement Project Draft EIR**

Name [First, Last]: <i>John and Wendy Jones</i>		Date: <i>9/10/05</i>
Do you represent an organization? <i>no</i> Name of Organization: _____		
Address: <i>321 E. Sycamore Ave.</i>		
City: <i>El Segundo</i>	State: <i>CA</i>	Zip Code: <i>90245</i>
Telephone (Optional):	E-Mail (Optional):	
Subsection or Topic Area (if Applicable):		
Number:	Title:	
Comments: (To assist LAWA in the process of answering comments, please be specific on the topic of each statement.) <i>Please see attached sheet. Thank you.</i>		Office Use-Only
Attach Additional Sheets or use Reverse (If necessary)		

September 10, 2005 - Public Comments on South Airfield Improvement Project Draft EIR

As residents of El Segundo for over 25 years, we strongly object to the south runway being moving further south. As the configuration currently is, we barely tolerate the noise levels of the cargo planes. El Segundo home owners are not as concerned about any impact the construction project will have, a temporary situation, but we are very much concerned with what the project is doing, a long-term (i.e. permanent) condition. The runway move would have a negative impact on the noise level.

Such meticulous effort went into this impact study of the "improvement" project. Has there been any effort to communicate directly with the people who live with sometimes intolerable noise levels day in and day out? Your "workshops" have been nothing but presentations of what LAX intends to do, like it or not. They have all had an air of arrogance that the public has definitely felt. They are not real workshops where citizens can input ideas. Giving people these forms for comments is not enough.

We realize our comments are going beyond this construction project report but we must express our objection to the project itself. Our impact study suggests having a curfew on flights set at 10:00 pm. No flights should be allowed to take off after this time.

Palmdale makes a lot more sense than this inefficient and impractical packing of 10 lbs. of potatoes in a 5 lb. sack. Palmdale is really not that far away. Ontario wants the cargo. They both have ROOM.

Thank you for the opportunity to comment.

Wendy and John Jones
321 E. Sycamore Ave.
El Segundo, CA 90245
(310) 640-9674

Wednesday, September 14, 2005

A response to the request for comment on the Draft Environmental Impact Report for the South Airfield Improvement Project at Los Angeles International Airport.

INTRODUCTION

On Tuesday, March 3rd, 2005, Rick White, the president and CEO of a high-tech lobbying firm called TechNet, which represents 200 cutting-edge firms, including Microsoft, Intel Corp., Cisco Systems and Hewlett Packard, met with Cabinet members and congressional leaders in Washington, D.C. to discuss the possibility that the U.S. was losing its competitive edge. Said he:

The world is changing a little bit, and frankly there is a significant amount of concern that if we don't make some adjustments, follow the right public policies, do some things that are important, we could find ourselves very quickly losing the advantage we've had for so long.

The writers of this paper believe that the South Airfield Improvement Project (SAIP) is not an example of "the right public policies" that Mr. White discusses. Indeed, we contend that it is an example of the *wrong* public policies that will result in squandering precious resources for a make-shift, short term, Los Angeles-only airport solution at the expense of a visionary, long term, regional solution.

One would not have had to work in the aerospace industry for a total of fifty years, as the writers of this paper have, to understand that SAIP was not developed "to enhance the safety of operations at the Airport by reducing the potential for runway incursions," as LAWA has advertised. All one would have to do read *Aviation Week & Space*

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Technology to understand that the purpose of relocating Runway 7R/25L about 55 feet toward the city of El Segundo is to provide that behemoth of the business, the Airbus A-380, with a runway on which to land. And the A-380 will certainly not enhance the safety factor at LAX. With its size and weight, it will heighten the confusion and congestion that presently exists there.

During the time allotted for the LAX Master Plan, the airlines of the world will experience three changes of near seismic proportions:

1. A long-term change in the price of jet fuel.
2. A change in the nature of domestic competition due to advances in engine technology.
3. A change in the shape of international routes because of a shift in the locus of economic development.

In harmony with Mr. White's statement, we have analyzed these changes in relation to what is taking place at LAX. We respectfully submit our observations and conclusions.

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OBSERVATIONS

THE CHANGING PRICE OF JET FUEL

Prior to 1978—a watershed year in the history of commercial aviation in America—the airlines functioned as if they were large components in a nationwide public utility, in much the same way that the 22 operating companies of America's telephone system functioned prior to the breakup of Ma Bell. During those idyllic times, the routes the airlines flew and the fares they charged were assigned and computed by transportation planners who worked in Washington at the Federal Government's Civil Aeronautics Board (CAB). If a CEO of one of the lines came to the conclusion that his costs were increasing, he would appear—hat in hand—before the CAB and plead his case. Then the planners would usually decide to increase his fares. It was a genteel way of conducting business; however, it was not an efficient way.

In 1978, President Jimmy Carter, who was struggling with an economy beset by inflation, set out to convince the Congress that the airline industry should be deregulated to allow competition and new technology to put downward pressure on fares. In this endeavor, the President was assisted by Dr. Alfred E. Kahn, an economics professor at Cornell University, who was serving as the Chairman of the CAB and who did much of the heavy lifting. Despite loud howls of protest from the CEO's of the airlines, Congress did pass the requisite legislation. (All people in business worship at the altar of the Goddess of Competition—until She comes knocking on their doors.) But neither the chaotic conditions that the CEO's had envisioned nor the downward pressure on prices that Carter and Hahn had hoped for manifested itself for almost a quarter of a century. But since that infamous date of 9-11-01, both chaos and falling fares have come to the airline business with a vengeance, and it is safe to say that the industry will never be the same.

America has six major airlines that date back to the halcyon days prior to deregulation, and so they are known in the industry as "the legacy lines." Their names are household words: American, United, Delta, Northwest, Continental, US Airways. And all six are now struggling with financial problems of varying degrees of severity. In the aggregate, these half-a-dozen major lines have lost a whopping \$XX billion between 2000

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and 2004, and it has been estimated that they will lose another \$5 billion in 2005. (And as the late Senator "Scoop" Jackson once so sagely observed: "A billion here and a billion there, and pretty soon you're talking about real money.") Some industry-watchers believe one of the six legacy lines will be forced to sell its assets and close its doors within the next five years. (In this industry the "L" word is "liquidation.") According to the conventional wisdom, the afflictions plaguing the legacy lines originate from four sources: (1) the tragedy in New York on 9-11; (2) the SARS epidemic that moved from Asia to Canada; (3) the steeply climbing price of the distillate used as jet fuel, and (4) heightened competition from the discount airlines—such as Southwest and JetBlue that fly small, single-aisle planes using a different business model. But from a long-term standpoint, the changing price of jet fuel is the most destructive force hammering the legacy lines.

US AIRWAYS: Currently the seventh largest airline in America—behind the other five legacy lines and Southwest, (a muscular discount carrier)—it began its career in 1937 carrying mail from Pittsburgh. Although its flies into LAX, the airline has always maintained an East Coast orientation: For a while it even called itself Allegheny Airlines. Badly buffeted by a hostile environment, US Airways opted in August 2002 for breathing room from its creditors under Chapter 11 of the bankruptcy code. During the time that it was protected by the bankruptcy court, the airline's executives put the arm on Uncle Sam via the Air Transportation Stabilization Board (ATSB) for \$900 million in loan guarantees. In March of 2003, it fired up its engines and flew out of bankruptcy, ready and rearing to take on the competition; however, after receiving a severe pummeling, in the fall of 2004 turned tail and headed back into bankruptcy again where it currently remains. In the summer US Airways announced that it was planning to exit from the protection of Chapter 11 via a merger with America West Holding Corp., a discount line.

UNITED AIRLINES: This aptly named airline was formed when Boeing Air Transport was united with Varney Air Lines, National Air Transport, and Pacific Air Transport. From this aggregation, it grew to be the second largest airline in the U.S. (when measured by the amount of traffic) and the largest player at LAX. Following 9-11, its friendly skies became downright hostile, so United sought solace under the protection of Chapter 11 in November of 2002. And there it has languished. Hoping to follow US Airways' lead, United requested massive loan guarantees three

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times from the ATSB, and three times it has been rebuffed. The last time, the Federal Government said that it would no longer entertain further requests; therefore, that approach to funding a breakout from bankruptcy is no longer an option. United's new CEO—an oilman who once ran Texaco—contends the airline is strong enough to emerge from Chapter 11 under its own power.

On Wednesday, September 7, 2005, United Airlines parent company filed a long-overdue reorganization plan which stated that it would emerge from under the protection of Chapter 11 on February 1, 2006. America's No. 2 carrier, United has lost over \$10 billion since 2000, and it has spent over three years undergoing major surgery that was initially supposed to take eighteen months. But, according to Tilton:

United has made tremendous progress in our restructuring to improve performance across the board, in costs, revenue, operations and service to our customers.

Perhaps the most important thing that United has accomplished while under the aegis of the bankruptcy court is to judiciously cull out the older, slower, jet-fuel guzzling airliners that it either owned or leased. As a consequence, it now can boast of a fleet that is slimmer and trimmer than those flown by most of its legacy-line competitors. Whether United's management can make money in a highly cyclical business with high fuel prices and a disgruntled work force remains to be seen.

DELTA AIR LINES: The third largest airline in the U.S., Delta is also one of the oldest. A carrier with a southern drawl, it got its start when Huff Deland established a business to spray cotton fields in the Mississippi Delta in 1924. In 1928, it started flying passengers between Dallas to Jackson, MS, under the name of Delta Air Services. After decades of relatively smooth flying, in the spring of 2001 Delta was sitting in the catbird seat, with lucrative routes and a lot of money in the bank that it had earned during the Golden Days of the 1990's. So about that time, some of the members of Delta's pilots' union began to ask themselves the following question: If it is possible to make \$100,000 a year without spending an inordinate time in the cockpit (work does so impinges on golf), why isn't it possible to make \$200,000 and spend even less time in the cockpit? So the pilots' union representatives drafted a proposal and submitted it to top management. Wanting to

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avoid an internecine struggle with the pilots, the executives said loud and clear: "Hey, it works for me." And so the corporate legal eagles developed a new contract, which well could be called: No Pilot Left Behind. In one fell swoop, Delta's pilots became the highest paid throttle-jockeys in the industry: Senior pilots would make nearly \$300,000 a year for flying planes with nearly an automated flight control system, fledgling pilots would be paid \$100,000, and mid-career pilots would receive \$225,000. It was the kind of lush contract that would cause a euphoric pilot to go out and buy a new set of clubs.

The terrorist attack on 9-11 brought major pain to all of the carriers in the industry, but particularly to United and American which lost both planes and crews. Tourists stayed away in droves, and the business travelers took to the skies only when it was absolutely necessary. Because the airline business is one characterized by high fixed costs, it wasn't very long before all of the legacy lines were racking up major losses. All of them started to slash wages and to retrench—all except Delta.

Leo Mullin, who was then the CEO, and M. Michele Burns, who was then the line's chief financial officer, believed that it was possible to avoid confrontation with the pilots' union by using the strength of Delta's balance sheet to sell bonds and just paper over the rough patch that the line was experiencing. The strategy they concocted was little more than a craps shoot, and while craps might be a fun game for Las Vegas, it is not a smart game to play at a headquarters building in Atlanta. In the borrowing binge that followed, Delta developed a swaying tower of debt instruments. And Delta's debt and leases come in all shapes and sizes: \$4.7 billion in unsecured bonds, \$2.1 billion in aircraft-backed debt known as "equipment trust certificates," another \$4.9 billion on additional aircraft-related debt known as "enhanced" ETC's, and \$9 billion in noncancelable operating leases on aircraft. (The process of borrowing money to cover current expenses, and putting the airplanes up as collateral is analogous to an agricultural society feasting on its seed corn.) When Delta's executives got off their borrowing binge, the airline carried an onus of \$20.6 billion. And the members of Delta's board of directors understood what was involved in the Delta craps shoot. One has been quoted as saying: "It's not as if the board and management was unaware of the risks. Everyone realized that while this cash infusion from borrowing would enable Delta to continue on without severe financial problems, the business would have to

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turn around or Delta would have a problem paying all this money." And so while the members of the board sat on their hands, management borrowed money as if there were no tomorrow. And then the business failed to turn around.

The union representing Delta's 7,000 active pilots only made a bad situation worse. The storybook contract they negotiated in the summer of 2001 contained a provision for a 4.5% wage increase. So during a time when the pilots of other airlines were making major wage concessions, the Delta pilots demanded—and got—their wage increases in 2002, 2003, and 2004. According to John Malone, head of the union's leadership council: "At the time we thought that was a fair contract, they never told us we could not afford the contract." So while the pilots chattered aimlessly about the escalating cost of green fees and the difficulty of finding a good caddy, Delta lost \$5.6 billion between 2001 and 2003. The general feeling is that the pilots—particularly the senior pilots—felt they deserved the wage increase. (Hey, \$300,000 X .045 = \$13,500 per year, and that can buy a lot of golf balls.) In October of 2004, the line reported a loss of \$651 million for its third quarter vis-à-vis a loss of \$168 in 2003, and by that time the airline was in a flat spin.

On Monday, September 12th, 2005, a Wall Street Journal article said that insiders opined that Delta would file for Chapter 11 bankruptcy during the week ending on Friday, September 16th. The premier problem facing Delta's management was to put together a financing package worth in the neighborhood of \$1.7 billion to keep the line's planes aloft during restructuring. Because of the borrowing binge undertaken during Leo Mullin reign, Delta would have put in hock all its unencumbered assets (including its gates at New York City's LaGuardia Airport and its routes to Tokyo and London) in order to obtain the financing. Having lost nearly \$10 billion since 2001, Delta's prognosis is guarded at best. Analysts who are close to the company contend that Delta will seek protection under Chapter 11 during the week ending September 17th, 2005.

After reviewing the condition of three of the six legacy lines in the U.S., one industry analyst observed: "There is presently a new chapter being written in the glorious annals of commercial aviation—Chapter 11." The truth is that the remaining three legacy lines are not in much better shape than the prior three.

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NORTHWEST AIRLINES: The pride of Minnesota, Northwest Airways, as it was originally called, went into business in the summer of 1926, flying people from Saint Paul to Chicago. In 1947, it started flying DC-4's from Seattle via Anchorage to Tokyo and on to Manila over the polar route; thereafter, it called itself Northwest Orient Airlines. In 1988, shortly after it acquired Republic, it shortened its name to Northwest Airlines to reflect its global reach: It goes to 250 destinations in 20 countries. There is a chance that it will soon go to the bankruptcy court.

With the airline deep in debt, Northwest's management believes that it needs concessions of \$950 million a year from its work force in order not to join US Airways and United in bankruptcy. It could be one tough sell, particularly the union representing Northwest's ground workers, who are not paid nearly as lavishly as are Northwest's pilots. ("Hey, Dude, we ain't in the concessionary business!") And there are those who believe that the \$950 million isn't enough to do the trick. *Uff da!* as they say in St. Paul. Northwest been able to keep 'em flying during a strike by the Aircraft Mechanics Fraternal Organization by temporary employees and managerial people with aircraft maintenance experience. On Monday, September 12 the line defaulted on a payment of \$18.7 million that it was supposed to make to one of commuter affiliates. People familiar with the airline, maintain that the probability of Northwest declaring bankruptcy during the week ending September 17th, 2005 is very high. Since the downward spiral in the industry, which began in 2001, Northwest has lost nearly \$3 billion.

AMERICAN AIRLINES: This is another aptly named carrier because it is the biggest airline in America. Appropriately, it was founded in Texas, where all things are supposed to be big. American's net losses during the past three years totaled \$6.5 billion—and that's a whole heap a money even in Texas. As one would expect from the behemoth of the business that's headquartered in Dallas, American has a whole passel of planes—little planes, middle-sized planes, and big planes. It has a total of 801 birds, and that is not counting the very little birds that are owned by American Eagle, its regional service. It has some planes made by Airbus, the European airframe producer; lots of planes made by Boeing; lots of planes made by Fokker, the Dutch bird builder; and lots and lots of planes made by McDonnell Douglas (360 of them). American missed flying into bankruptcy by a matter of hours in 2003, and it is again racking up losses.

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CONTINENTAL AIRLINES: In a segment of the industry where the lines seem to trend from bad to worse, Continental is the exception that proves the rule. It started in Texas back in 1934 as the southwest unit of Varney Speed Lines. Since that time it has become no stranger to the bankruptcy courts. It was protected from creditors by Chapter 11 between 1983 and 1987 and again between 1990 and 1992. In 1994, it looked as if Continental was ready for another session before the bankruptcy judge. Employees, deathly tired of working for an airline that was on life support, hoped that someone on the board would bring in a messianic leader that would fly them to the promised land—or at least to sustained profitability. That someone on the board turned out to be a Texas money mogul named David Bonderman (a Harvard Business Law grad) who had corralled the capital required to propel Continental's flight from bankruptcy in 1992. Then Bonderman brought in Gordon Bethune from Boeing.

In an industry where the average CEO does not know which end of the engine the fire comes out of, Bethune was a living, breathing anomaly. It was as if someone had taken Henry Ford—the mechanic turned production sophisticate—and placed him on the sixteenth floor of the GM headquarters amid all the beancounters. A high school dropout, he was an aviation mechanic in the Navy, so he didn't have any trouble talking with people repairing Continental's engines. Indeed, he sounded like someone who knew what it was like to have grease under his fingernails. (He is a good man with a four mouth.) Once, when discussing the vicissitudes of the business, he remarked: "They don't realize that while you're sitting here talking someone is fucking you, changing a fare, changing a flight, moving something. There's no autopilot, and that's why I've seen a lot of guys come and go." (A quote from *Fortune*.) A licensed commercial pilot with tickets for the Boeing 757 and 767, he has no difficulty discussing problems with pilots. And standing 6-foot-3, slim and trim, and with a sailor's devilish gleam in his eye, he has no problem talking with the female flight attendants. And most importantly, he understands the role technology plays in the workings of a business model.

So Continental made a lot of money and the employees had a lot of fun. Bethune finally locked horns with Bonderman over what he saw as the latter's conflict of interest (Bonderman was investing in another airline), and they both ended up by agreeing to leave the airline. As a result,

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Bethune departed from Continental on January 1st, 2005. (Not all stories in American business have a happy ending.)

Continental Airlines reported losses in 2004, and it expects to have more in 2005.

The Jet Fuel Problem:

Recently, the U.S. trade gap (the imbalance between what America sells abroad and what it imports) has grown into a yawning chasm. The deficit was a whopping \$-617.07 billion for all of 2004, and the numbers for May and June (\$-55.4 and \$-58.8 billion respectively) would indicate that the 2005 total will exceed that record amount. Over half of the deterioration between May and June is a result of America's surging bill for foreign oil, which hit a record high of \$19.9 billion, an increase of nearly 10 percent from May.

America's trade deficit will not decrease by very much very soon because of the high price of imported oil. A barrel of light sweet crude for September delivery was quoted at \$66.78—up 98 cents—on the New York Mercantile exchange on Friday, August 12th. This means that crude is up over 49% so far this year.

A number of petroleum geologists believe that the world's oil problem is destined to get worse before it gets better. Princeton University geologist, Kenneth S. Deffeyes, recently forecast "a permanent state of oil shortage."

Back in 1956, when the world seemed to be awash in liquid hydrocarbons, M. King Hubbert ran some sophisticated calculations and came to the conclusion that petroleum production in the United States would peak in 1970. This prediction by the geologist from Shell Oil brought an anvil chorus of derision from people in and outside of the earth sciences. But he was right! Production did peak in 1970, and it has been heading down a slippery slope ever since.

Of late, geologists have started to apply Hubbert's calculations to global oil production, and the results of their analyses indicates that the world's oil production would reach an inflection point during the first decade of the 21st century. Based on the results from

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Hubbert's model, Deffeyes—the Princeton geologist—has concluded that the peak in global production will be in late 2005 or early 2006. Mathew Simmons, a Houston investment banker who has written a book in which he advanced the thesis that Saudi Arabia's oil output will soon head into "irreversible decline," believes that the global turning point will be in 2007 to 2009. And David Goldstein, the author of a book with the dolorous title, *The End of Oil*, has stated that the downturn will start prior to 2010.

David O'Reilly, the Chief Executive of Chevron—the oil company that just snatched Unocal Corp. of El Segundo away from the grasp of the Chinese company CNOOC Ltd. with a bid of \$18.1—recently told industry executives that: "The time when we could count on cheap oil and even cheaper natural gas is clearly ending." (Wags in the business have started referring to this as the "Brave New World" speech.) O'Reilly was clearly willing to put Chevron's money where his mouth was because the Unocal purchase only works if oil prices stay high. Noted Chevron's Vice Chairman Peter Robertson: "If prices turn out to be where they are today for a long time, we'll have a great win."

And finally, Boone Pickens, the Texas oil tycoon and petroleum geologist who founded Mesa Petroleum Co. and who made buckets of money betting big on rising energy prices, recently said on the subject of oil prices: "I can't tell for sure where we're going, other than up."

In addition to learned opinions on when an inflection point will be reached in global oil production, there is also physical evidence to support their predictions.

Petróleos Mexicanos—an oil giant known in the industry as "Pemex"—was established in 1938 when a wave of nationalism sweeping over Mexico caused the people to boot out all the foreign oil companies. Their leader, President Lázaro Cárdenas, declared: "The oil is ours." The immediate problem is that there is a whole lot less of it now than there has been in the recent past. In 1998, Pemex had proven reserves of 34 billion barrels of crude; in 2004, its proven reserves have fallen to 18 billion barrels. This trend is of great importance to the oil refiners and consumers north of the border

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because Mexico accounts for 16 percent of all of the oil imported by the United States—second only to Canada. It has been estimated that, unless Pemex develops the skill required to strike oil in very hard to reach places (such as the deep sea beds in the Gulf of Mexico), Mexico could be transformed into a net oil *importer* in the next decade.

While Columbia may be best known as an exporter of cocaine to the United States, it has always been a major player on the international oil stage. Barring major finds, Columbia could become a net oil importer in the next year.

With indications that the global reserves of crude oil are being tapped out, large amounts of international money are starting to move aggressively into Canada's oil-sands industry that has its major field in the land-locked province of Alberta. Oil sands are gritty deposits of a tar-like bitumen (a natural asphalt) that are fiendishly hard to process into crude; consequently, the vast deposits in Alberta are not economically viable until the price of conventional crude is around \$50 per barrel. As a result of the recent run-up in oil prices, the race is on to put down large pipelines through which oil will flow to tankers moored on the coast of British Columbia that will carry the cargo to the West Coast of the U.S. and to Asia. As one would expect, the Chinese are in the van of this advance. In July, Enbridge Inc. of Calgary, Alberta and PetroChina Co, a state-owned Chinese oil company, signed an agreement to share the cost of building a U.S. \$2 billion (\$2.5 billion Canadian) pipeline with a capacity of 400,000 barrels a day. Noted Richard Sandahl, Vice President of Enbridge: "It wasn't an easy commitment for the Chinese to make, but diversification and security of oil supply are priority issues to them." As well it should be. The nine members of China's elite Politburo Standing Committee (all educated as engineers) see with gin-clarity that the Middle Kingdom is rapidly making the transition from a culture based on the bicycle to one based on the automobile. China is currently the world's fourth largest auto market, with sales in 2004 of 2.3 million cars. The Chinese are expected to pass the Germans in auto purchases in 2005, the Japanese in 2010, and the Americans shortly thereafter, and all that moving metal will require veritable oceans of oil. (It's no longer *Oil for the Lamps of China*. Now it's *Oil for the Cars of China*.)

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The reason that Chevron, of San Ramon, CA, was so anxious to acquire Unocal, of El Segundo, CA, is that the behemoth of the business is in the process of running out of crude to process. In 2004, it pumped from the earth the equivalent of 2.5 million barrels a day and it didn't come close to replacing those barrels. Indeed, its "replacement rate" (the relationship between the oil it pumped to the oil it found) was just 18 percent. Consequently, it could eventually pump itself out of existence. Because Unocal is an exploration and processing company with proven reserves—many of which are located in the South China Sea—it was only natural that it would look to the executives at Chevron as low-hanging fruit ready for plucking.

Crude Prices and the Crack Spread

The canny Scot, Andrew Carnegie, once observed that "While gold is precious, iron is priceless." The same can be said of the recent relationship between crude oil and jet fuel. The difference between crude oil and jet fuel is called a "crack spread" which measures the divergence in dollars per barrel between the prices of refined oil products and West Texas Intermediate crude oil. And while the price of crude oil has been rising, the price of refined oil products, such as jet fuel and diesel fuel, has soared; hence the crack spread has widened significantly. For instance, in 2002, the crack spread on a barrel of jet fuel was \$2.59; in the first half of this year it was \$11.00. Much of this increase has to do with the lack of capacity required to refine crude into distillates. Because the companies don't have enough processing equipment to refine the heavy oils, the price of the distillates (such as the kerosene used for jets and tractors) is pushed up by high demand for these products. (So about one-fifth of the increase in price of jet fuel is due to the widening of the crack spread and the other four-fifths reflects heightened oil prices.)

Downsizing the Air Fleets

There seems to be a consensus building among the CEO's of the legacy lines that they have to get rid of the very big passenger planes that served them well as the linchpins of the hub-to-hub routes.

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After its second filing for bankruptcy, US Airways received permission to sell many of its big aircraft—mostly MD-80's which are medium range airliners that are a stretched version of the McDonnell Douglas DC-9. And on the day after Thanksgiving on Black Friday in 2004, US Airways announced a significant pact with General Electric's GE Capital Aviation Services (an aircraft leasor) that will allow it to return 25 of its mainline aircraft (10 Airbus 319's and 15 Boeing 737-300's) during the next three years. As a quid pro quo, GE Capital Aviation Services will lease the airline up to 31 new regional jets during the three year time-span. An integral part of US Airways' get-well plan, the smaller jets will be used to replace both its turboprop birds on short runs and its expensive mainline jets on longer runs.

In the fall of 2004, a spokeswoman for United announced that the carrier was "returning the 747-400's to the lessors." (One does not have to be a brilliant aerodynamicist to figure out that when planes that carry 400 passengers are replaced by planes that carry 162, that the number of take-offs and landings—the air operations—increases at LAX by 2.5 times for that group of passengers.)

In October of 2004, Delta showed a charge in its profit-and-loss statement for selling off its MD-11's, long range, wide body airliners that are basically a longer and re-engined version of the DC-10: they can seat 298 passengers when rigged in three classes, 323 in two, and 410 in a single class. As a part of the airline's "Delta Solution," it will be retiring four types of the 12 separate types of aircraft that the carrier currently uses in order to save on pilot training. And as Delta began to inch closer and closer toward bankruptcy, it announced that it would cull its jet-fuel-guzzling Boeing 767-200 aircraft. It should be noted that not all of these planes would be removed from U.S. air system. Delta has sold 22 of them to ABX Air Inc., which plans to convert them into cargo planes.

After American Airlines had a close brush with bankruptcy in 2003, the executives decided to refurbish the fleet by getting rid of its Boeing 747's. This sloughing off of that grand old hub-buggy has now been accomplished.

And, finally, Continental is retiring its leased MD-80's of which it has twenty.

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THE CHANGING NATURE OF DOMESTIC COMPETITION

The Hub-to-Hub Business Model

Very shortly after the deregulation of 1978, the legacy airlines began to establish hubs in the major cities that would be serviced by the long-range, high-capacity, widebody airliners that were available at that time. The three most popular jumbo jets were made by three different airframe manufacturers: The Lockheed L-1011 TriStar, that had three engines and could carry 400 passengers; the McDonnell Douglas DC-10, that had three engines and could carry 380 passengers; and the Boeing 747-200 that had four engines and could carry 397 passengers when rigged in three classes (first, business, and economy), 451 in two classes, and 500 in only one class. While all three airliners were used by the legacy lines in their hub-to-hub business model, the 747 was the most significant airplane because it drove down the operating costs per seat. For most legacy airlines, the 747 (that beautiful bird with the dowager's hump just after of the cockpit) was the legacy lines' favorite hub-buggy.

According to the hub-to-hub model, a widebody airliner would sit on the tarmac at one of the hubs while small, regional jets—which formed the "spokes" in the hub-and-spoke configuration—carried in passengers that would fill up the large aircraft. Once loaded, the big bird would fly to another hub, where it would discharge some passengers and take on others. It would then fly on to another hub and repeat the process. A typical hub flight would be from Los Angeles to Chicago to New York. All of the legacy lines have established several hubs. For instance, United Airlines' major hubs are Los Angeles, San Francisco, Chicago, Denver, and Washington-Dulles.

Because the name of the game in hub-to-hub is "Connections," the legacy lines make sure that their widebody, double-aisle airliners are on the tarmac ready to receive the passengers being carried in by the regional jets at peak passenger hours. For example, the managers of United at LAX would make sure that they have big birds on the deck between 7:00 a.m. and 9:00 a.m. This "peaking," as it is called in the industry, is an expensive activity because the airplanes spend a lot of time queuing up to

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get out of a congested airport; however, it is an integral part of the hub-to-hub business model. And so Delta Air Lines' advertising ditty goes:

Delta is ready when you are.
Delta is ready to fly!

With the passage of time, it has become ever more apparent to astute observers that the hub-to-hub model has some distinct disadvantages, and most of these disadvantages were produced by the need of the airlines to dominate the traffic at their hubs—be all things to all passengers. To have a plane ready for every purpose, all of the legacy lines assembled a mind-boggling array of "equipment," as airliners are called in the industry. For instance, Northwest Airlines flies the following airplanes: 66 Airbus A319's; 78 Airbus A320-200's; 1 Airbus A330-200; 12 Boeing 727-200's; 20 Boeing 747-200's; 16 Boeing 747-400's; 56 Boeing 757-200's; 10 Boeing 757-300's; 24 Douglas DC-10-30/40's; and 167 Douglas DC 9-14/15/31/32's. This assemblage of different planes built by different airframe manufacturers and equipped with different engines from different engine-builders result in heightened cost curves:

- Because each airframe maker has its own cockpit design, flying a lot of different planes means that the legacy lines must spend much money in pilot training.
- Since each pilot is only "checked out" on a few airplanes, pilot-scheduling can be a real migraine.
- Due to the fact that each model of airliner has a unique set of parts, inventory maintenance and control can become a nightmare.
- Because jet engines are very sophisticated mechanisms, owning a host of airliners powered by many disparate engines means that a carrier's mechanics must become a corps of power-plant specialists.

The Point-to-Point Business Model

The discount airlines--such as Amerca West Airlines, AirTran Airways, Jet Blue Airways, and Southwest Airlines--are the very antithesis of the legacy airlines. While the legacy lines fly from one hub to another, the discounters fly direct routes—from point-to-point. And while the hub-

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to-hub business model has some distinct disadvantages, the point-to-point business model has some distinct advantages. Instead of trying to be all things to all passengers, the discounters are interested in serving passengers who want to go where they fly--and most of the discounters' advantages result from this difference. The discounters fly various models of one kind of airplane powered by one kind of engine from one engine maker. The best of the bunch--Southwest--has a fleet of 246 aircraft, and they are all Boeing 737's (27 Boeing 737-200's; 194 Boeing 737-300's; and 25 Boeing 737-500's). And Jet Blue currently has a fleet of 45 Airbus A320-200's. This one-size-fits-all approach to equipment purchases is a vehicle for driving down operating costs:

- Because all of the cockpits are the same, pilot training costs are kept to a minimum.
- Since a pilot is a pilot is a pilot (to paraphrase Gertrude Stein), pilot scheduling is a straight forward endeavor.
- Due to the fact that most models have identical parts, inventory costs are minuscule.
- Because the models of engines use by a discount line are very similar, the carrier's mechanics do not have to morph into a band of specialists. For example, the 737-300 has two CFM56-3B-2 turbofan engines; the 737-400 has two CFM56-3B-2 engines; and the 737-500 has two CFM56-3B-1 engines. If the mechanics can repair the engines on a -300, the chances are pretty good that they can fix the engines on a -400 and on a -500.
- Since the discounters fly fairly small aircraft, the cabin crews can often take care of cabin cleaning between flights.

The name of the game for the discounters is not Connections, as it is with the legacy lines; instead it is "Equipment Utilization," because the executives who run the low-cost carriers understand that they only make money when their planes are in the air. Therefore, "peaking" is not nearly as important as is "turn-around"—get in, get loaded, and get out. As a consequence, the airliners flying point-to-point routes spend much more time aloft than do those flying hub-to-hub routes.

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The Discounters' Response to Opportunity:

Back thirty-eight years ago, when Southwest Airlines was first established as Air Southwest, the low-cost carrier survived by staying on the periphery of the major markets and picking up the passengers that the big lines left behind. But over the years, advances in technology have made Southwest and its clones a force to be reckoned with. After big engines hung on small airframes gave them the requisite range to fly from one coast to the other, they became increasingly more aggressive. Now they run at the legacy lines' strengths: Hi diddle-diddle and right up the middle!

Locked in a long air war with the legacy lines, the low-cost carriers have finally come to the conclusion that Confederate General Nathan Bedford Forrest knew what he was talking about when he opined that to win one must: "Git thar fustest wif' the mostest." So while the legacy lines are either selling off their large airliners or sending them to the bird bone yard in the Mojave Desert, the discounters are pouring on the planes. Southwest, which flies only variations of Boeing's 737, has 150 Boeing 737-700's on order. JetBlue, which from its inception has flown only Airbus A320's, has ordered another 120. And America West has 17 Airbus A320's on order. AirTrans, which is in the midst of a bare-knuckled brawl with Delta over the market around Atlanta, has an affinity for small Boeing birds. It has ordered 23 Boeing 717-200's and 50 Boeing 737-700's with an option for 50 more. In 2004, AirTrans accepted delivery of 11 airplanes (eight 737's and three 717's), and it used them to increase the number of flights between the existing paired cities. In 2005, it will take delivery of 21 more birds (thirteen 737's and eight 717's), and it will use this additional capacity to move into new markets. AirTrans 737-700's will operate with strong CFM56-7B engines, which will provide the range to reach any airfield on the continent. The airline plans to heighten its operations in the Western U.S.

In addition to the new airplanes that the discounters are bringing to domestic market, wannabe low-cost carriers that intend to use the point-to-point business model will certainly bring with them additional capacity in the near future. (The potential for profits attracts companies like honey attracts bees.) An example of an airline that so intends to compete with the legacy lines and the existing discounters is Richard Branson's low-fare carrier, Virgin America, which is scheduled to start

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operations by the end of 2005. Fred Reid, the leader of Virgin America, (which he refers to as the "born in the USA" airline, taking his cue from "The Boss,") has purchased 11 new A319's and seven A320's, with options for 72 more. In addition, Virgin America has plans to lease 15 new A320's from GE Capital Aviation Services. The A320's will use CFM International's CFM56-6B engines so the airplanes will have both range and carrying capacity. This new airline will have its base of flight operations in San Francisco and its headquarters in New York.

The independent regional airlines exist because there is a provision in most pilots' union contracts that says that the legacy carriers can outsource flights to separate companies (such as Mesa, Chautauqua, and SkyWest) that fly airliners carrying 70 passengers or fewer. With the legacy carriers in disarray, the regional lines that function as the spokes in the hub-and-spoke configuration are clearly at sixes and sevens, and this provides an opportunity for the discounters to move into that market segment. As a consequence, JetBlue—one of the most entrepreneurial of the low-cost carriers—has recently decided to deviate from its one-size-fits-all approach to airframe. It has announced the purchase of 100 Embraer 190's (together with the option for 100 more) for delivery between August 2006 and 2011. The Embraer 190 is jet airliner manufactured by Empresa Brasileira de Aeronáutica SA of Brazil, and it is a new entrant at the very high end of the regional market. It has standard seating for 98 passengers. JetBlue intends to use these planes to fly point-to-point flights between both small and medium-sized cities. And Southwest is currently studying the possibilities of buying a fleet of small jets—to be added to the flock of 737's it flies—to compete via direct flights in the regional markets.

Despite the fact that the executives of what has been called "The Sick Six" have been diligently culling their air fleets, the total capacity of the industry has actually *increased* by about 6% in 2004 because of additions by the low-cost carriers. About a decade ago, the lines that pursued the low-cost, low-fare formula controlled from 7% to 8% of the domestic market. This year they have slightly less than 25%. Wendy Zellner, an industry analyst at *Business Week*, estimates that the discounters will own 35% of that market by 2009. By the time that the airline industry reaches a position of equilibrium, the low-cost carriers will own between 40% and 50% of the domestic market. And this means

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that by then a great spate of medium range narrowbody airliners will be attempting to take off and land at congested airports such as LAX.

In the late Spring of 2004, both Southwest and Frontier decided to hold siege on Philadelphia. At that time Philadelphia was a stronghold of US Airways, where it earned 17 percent of its total revenue. Now, as US Airways strives to become a discounter, it is in the process of "de-emphasizing" Philadelphia. JetBlue has thrown down the gauntlet before both American and United by launching a heightened number of flights between JFK and the West Coast. Since it first came to the Big Apple in 2000, airline fares to the Golden State have plunged by 30%. America West has given United and American a lesson in discount pricing on the Boston-to-San Francisco run. Before the advent of America West, United charged \$1,166 for a one-way, three-day advance purchase ticket; now it charges \$464. Frontier has broken the hammerlock that United has had on the route between Nashville and Denver by offering two point-to-point flights a day between the two cities. Before Frontier arrived on the scene, United charged \$464 for a one way, three-day advanced purchased ducat. Now it charges \$199—the same as Frontier.

The airline industry has always been a boom-and-bust business; however, since the discount carriers have come on strong in the domestic market, the legacy lines can no longer get well by jacking up the fares during the upswing of the cycle. Notes C. David Cush, American Airlines' chief of sales: "The low-cost carriers are now dictating pricing in our business." But the discounters are not winning the laurels based on price alone. For instance, since its inception a salient aspect of JetBlue's strategy was to compete with both the legacy lines and the other discounters by adding amenities. As a consequence, only A320's straight from the assembly line would be used. (Used airliners need not apply.) And all these new birds would be rigged out with leather seats and 24-channel TV systems. Now other discounters have become highly adroit at playing the service-with-a-smile-and-amenities game. AirTran, American West, and Spirit can boast of posh business class cabins. And rumors abound that the executives at Southwest—the purist of the pure discounters—are seriously considering eliminating their infamous "cattle call" and starting to assign seats. (What's the world coming to?)

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The Legacy Lines' Response to Competition

The losses that have been racked up from 2001 to 2004 have made it abundantly clear to all but the most benighted CEO that the *pure* hub-to-hub business model is destined to go the way of the passenger pigeon, as point-to-point flights achieve hegemony. So the legacy lines have been spending much time and money on developing alternatives to, and variations on, the hub-to-hub model. Examples of these efforts follow.

After two hard landings in the bankruptcy court, Bruce R. Lakefield, CEO at US Airways and his management team have decided that there is much truth in the old adage: If you can't fight 'em, join 'em. The executives have concluded that the time has come to slough off the hub-to-hub business model completely and to embrace the point-to-point model by transforming US Airways into a fully fledged discounter. The truth of the matter is that management really does not have another choice other than liquidation. They are currently in the unenviable position of directing a middle-sized hub-to-hub company, and that's an oxymoron. (If the hub-to-hub model is anything, it is an economies of scale game.) And because US Airways has operating expenses per available seat mile (11.59 cents) that are higher than its seven major competitors, its fare structures are being shredded by the likes of Jet Blue, which has operating expenses of just 6.80 cents. In the summer of 2005, US Airways announced that it planned to exit bankruptcy by merging with a discounter, America West.

United Airlines' selection of a business model remains up in the air. During a speech in Santa Monica, CA, in November, Glenn Tilton, the oilman that is currently at the controls of United, discussed how the airline had been weighed down by an onus of bad management for a very long period of time. Said he: "Years of decisions based on expediency and the interests of disparate constituencies had a corrosive effect on the culture of United Airlines. Cynicism and dysfunction permeated the workforce." Or, as one disgruntled United executive once commented to the writers: "If United is not a circus, why so many clowns?" As Mr. Tilton once pointed out, United has had four CEO's in the past five years, and seven in the past 15 years. Evidently managerial variety is not the answer to United's woes. There are some within the airline that believe that product differentiation is.

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United Airlines recently inaugurated an interesting experiment with product differentiation on its runs between New York John F. Kennedy and LAX and between JFK and San Francisco. These lines were originally serviced with a Boeing 767—a medium to long range widebody airliner with double aisles. Now United has replaced the 767's with Boeing 757, a medium range narrowbody airliner with a single aisle. Because the idea is to cater to the carriage trade that fly between La La Land and the Big Apple, the first class section of the planes have been upgraded with the first lie-flat sleeper seats on any plane flying domestic routes. The seats in business class will be able to recline more than usual, and passengers in coach will have an extra 3 inches of leg room vis-à-vis the usual offering. And because what United is offering is premium service, the number of seats on the refurbished 757's shrink by 35% when compared with the standard 767's previously used. Passengers in all three classes will get better meals than served on standard flights (thank God!), and each seat has its own power outlet.

The coach fares on the differentiated flights will be the same as those on United's plain vanilla flights: Out and back coach tickets ordered a week in advance will run \$270. However, at the high end of the curve, a walk-up, first-class fare will cost a premium \$4,400. In the future, these premium service, point-to-point flights will be increased to 13--seven daily round trip flights connecting LAX and JFK, and six joining San Francisco and JFK.

If one believes that in marketing demography is destiny, and if one understands that Americans live in a land with an increasingly skewed income distribution (the haves have more and the have-nots do not), then United's experiment with product differentiation could have great possibilities. It should be realized that the pivot point of the exercise in pricing power is first-rate service to the well-heeled travelers graciously provided by the cabin crew, and United is currently involved in a bad brouhaha with its flight attendants' union over pension-fund cuts. (It also should be understood that such tightly-focused, premium service flights will increase the number of take-offs and landings at LAX.)

In a variation upon US Airways concept of "If you can't lick 'em, join 'em," United has established a wholly owned discount carrier, called "Ted" as a vehicle for competing with the low-cost carriers at the end of the demand curve. Since Ted does not have a low-cost structure, it is hardly

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effective; however, it can be looked on as a learning device for United's top management. Obviously, they can use all the help they can get.

Delta's choice of a business model has turned out to be a very protracted and heinously expensive exercise. At the same time that Leo Mullin was borrowing money from Wall Street to ease Delta through the turbulent times it was experiencing, he was also having the board of directors approve of bonuses and bankruptcy-proof pensions for the top executives. (Evidently, Mr. Mullin believed that all Delta's employees are equal, but some are more equal than others.) After the remainder of the employees heard about the goodies that the big brass was getting, Mullin's credibility sank to near zero. Finally, Mullin decided that the time had come for him to leave; however, it took him six months before he finally made it through the front door, and during much of that time the board allowed the line to languish. The board then selected one of their own to try his hands at the controls. Gerald Grinstein, a lawyer who had been a member of Delta's board for over sixteen years, got the nod in January of 2004, and shortly thereafter he ordered that a top-to-bottom analysis of Delta be made so a new business model could be formulated. But this analysis took nine months to accomplish, and the plan that finally came squalling forth with much fanfare was neither fish, flesh, nor fowl. Delta would be neither a hub-to-hub line nor a point-to-point line, but line located somewhere in between. Grinstein dubbed the plan "the Delta Solution," and he said of it: "Our plan is not to simply mimic low-cost carriers, nor is it to continue to struggle for another few years as a traditional legacy carrier." According to Grinstein, the plan will "carve out new and previously uncharted airline territory." Of course, nobody in the industry is quite sure what that all means--if anything. While the plan may not turn out to be so great, it certainly was costly: While the analysis was being performed, Delta was losing about \$5 million a day. Early in Mr. Grinstein tenure as CEO, he uttered the "B" word: Bankruptcy. It was a word that had never rolled off Mr. Mullin's lips.

When the senior members of Delta's pilot corps heard the "B" word, it engendered an epiphany during which they saw with gin-clarity that in bankruptcy not only could their careers crash and burn, but also their pensions could inexplicably disappear. This comprehension did galvanize the pilots into a headlong rush--one similar in many ways to the gold rush in the Klondike--to the Human Resources Office to file early retirement papers. (Delta permitted retiring pilots to take a part of their

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pension in a lump sum payment. Because the lump that could be worth as much as a million dollars, this game was definitely not Trivial Pursuit.) As the movement gained momentum, some executives realized that Delta was experiencing a lemming-like run because so many graying pilots were opting to push the panic button and hit the silk that the carrier would not have enough captains to fly its lucrative transcontinental and overseas runs. The union agreement precluded the company from hiring retired pilots; however, faced with the possibility of bankruptcy brought about by pilots bailing out via early retirement, the union agreed to allow Delta to hire retired pilots as independent contractors.

During Mullin's tenure, Delta--like United Airlines--established an "airline within an airline" to compete with the discounters. It was named "Song," and there are some--inside and outside of the company--that believe that it should have been called "Swan Song." But, in accordance with the Delta Solution, Song received twelve more planes to add to its fleet of 36 jets in the spring of 2005.

Terry Trippler, an industry expert in Minneapolis asked the following question: "Is Song going to be the new Delta? It is hard to tell. It hasn't worked for anyone else, and Delta hasn't been too successful at anything else they've tried lately." That puts things in proper perspective. Song plans to peddle organic baby food on all the discounter's flights to convince parents to fly with their infants and small children. According to Mr. Trippler, "It's going to take a whole lot more than premium baby food. It's going to have to mean premium prices to turn that airline around."

At least there is no question about what business model that Northwest Airlines will select. It will keep using the hub-to-hub model because of the lock that it has on its hubs in the upper Midwest (mainly Detroit and the Twin Cities) and because it is one of two airlines that are presently permitted to fly into China--which is where the action will be in this decade and beyond.

When it comes to business models, the current chaos in the industry seems to have put the executives at American Airlines into a tail spin: The largest of the legacy lines is acting as if it were a point-to-point discounter in selective markets--behavior that is nothing short of bizarre. For example, faced with the discounters--particularly Jet Blue--eating its lunch in the environs around its Miami hub, American suddenly decided to

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slash its fares on all its Southern Florida routes by 85 percent. For instance, before the cut America's lowest one-way walkup fare from Miami to LaGuardia was \$616; after the cut America's fare was \$179 (the same as Jet Blue's fare from Ft. Lauderdale to LaGuardia). There are those who believe this approach to be an act of self-immolation. David Strine, an airline industry analyst at Bear Stearns has said: "Every time the majors match the fares of the discounters, they lost money. That situation is clearly unsustainable."

However, Scott Nason, the vice president for revenue management at American, maintains that not only is it not economic suicide, it is going to be "slightly revenue positive." If this indeed turns out to be the case, American Airlines will have repealed the laws of airline economics.

After losing the multi-talented Gordon Bethune, Continental Airlines has decided to stick to its hub-to-hub business model for now; however, it intends to focus its resources on the international routes. That would appear to be a wise decision, for that is where the future of air travel is to be found.

THE CHANGING SHAPE OF INTERNATIONAL ROUTES

Hub-to-Hub Versus Point-to-Point Over the Atlantic:

After the deregulation of 1978, many of the legacy lines moved a selection of their big birds--mainly 747's--to the East Coast to be used in the burgeoning traffic over the Atlantic. These airliners would fly from hubs in the U.S. (usually New York) to hubs in Europe (usually London). So if a woman wanted to go from Philadelphia to Amsterdam, she would first have to fly to New York via a small regional airliner. There she would board a lumbering widebody bird and fly to London. She would then change planes and fly with another regional carrier to Amsterdam. The airlines loved this arrangement because it allowed them to fill up their big birds and make a lot of money.

As a result of engine development, Boeing was able to change this scenario by building the 767, the narrowest widebody in service. With two robust engines, it was able to fly on point-to-point runs over the Atlantic. Observed that excellent English newsmagazine, *The Economist*:

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This taste for smaller international jets reflects the fact that travelers now like to shun big international hubs such as New York and London and fly directly to their destinations. This is changing the international market into a web of direct intercontinental flights rather than one big aerial bridge between London and New York.

The most common jet found on an Atlantic run is no longer the 747; instead 8 out of ten birds flying between North America and Europe are two-engine planes flying point-to-point.

Hub-to-Hub Versus Point-to-Point Over the Pacific:

After their victory with the 767 flying point-to-point on the Atlantic runs, both the executives and the aerodynamicists at Boeing started ruminating on the following question: Would the increasing traffic over the Pacific go the same way as the routes over the Atlantic? At the onset, they understood that, because of the distances involved between airports, the Pacific had long been the exclusive preserve of the hub-to-hub airlines. For instance, at the turn of the century, in excess of 85% of the passengers that land at Tokyo's Narita airport (one of Asia's great hubs) are not ultimately bound for Japan, but are heading instead for Singapore, Hong Kong or other places in the Orient.

After much analysis, the men and women of Boeing concluded that the Pacific would follow the example of the Atlantic because of advances in engine technology and because of the number of new airports that were being built throughout the Orient. So they set about to produce and market the Boeing 777--the first airliner to be designed specifically for point-to-point runs over the Pacific. Originally, it came in two versions: the 777-200 and the 777-300. Both of these planes experienced singular success--particularly in Asia, where there is usually a long distance between airfields. Japan Airlines, All Nippon Airlines, Thai Airways International, Cathay Pacific, China Southern, Japan Air Systems, Korean Air Lines, Singapore Airlines--all purchased the first two versions of the Triple 7.

As a result of this commercial success, Boeing's engineers set about developing a longer-range versions of the 777. Emblematic of these airliners is the 777-200LR which will have a range of nearly 9,000 nautical miles when it is ready for duty in 2006. It will be able to perform

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this technological tour de force because of two GE90-110B1 turbofan engines that have been described as "awesomely powerful." Capable of staying aloft for over 18 hours, the Dash 200LR can be used on point-to-point runs such as Sydney, Australia, to either Dallas or Denver. (Anyone who has flown over that sheer expanse of water will be mind-boggled by the fact that any bird can make that trip nonstop.) Another option for the Dash 200LR would be Auckland, New Zealand, to New York. The airplane will carry 305 passengers when configured in three classes. (Because the 777 is in the process of replacing the 747-400, which carries 416 passengers when rigged in three classes, the 777 will increase the number of take-offs and landings at all the world's major airports--and particularly at LAX.)

What is important about the Boeing 777 is that it can handily fly from the U.S. to Mainland China, for that is the locus of future economic growth.

The Economic Decline of the USA

The October, 2004 edition of the *IEEE Spectrum*--certainly one of the most respected technical journals in the world--has an article that begins with the following paragraph:

If the 19th century belonged to Britain and the 20th century to the United States, the 21st century will surely be East Asia's. Already South Korea, Taiwan, the eastern industrial areas of China, and Japan form an increasingly integrated economic bloc that rivals both Western Europe and the United States. Within decades, the region will become the world's dominant economic force.

While the beginning of an article in the December 6th edition of *Business Week* is not quite as dispassionate, it draws the same conclusion:

"The China Price." They are the three scariest words in U.S. industry. Cut your price at least 30% or lose your customers. Nearly every manufacturer is vulnerable--from furniture to networking gear. The result: A massive shift in economic power is underway.

Alan Tonelson, a research fellow with the U.S. Business & Industry Council Educational Fund, recently made the following observation:

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American technology competitiveness vis-à-vis China has been eroding rather significantly, and the pace of this erosion is going to speed up dramatically because it's the kind of process that feeds on its own momentum. As increasingly sophisticated manufacturing flows into China, the R&D, engineering, and design functions associated with that manufacturing are going to flow to China, too.

In 1996, China had exports of telecommunications equipment worth \$14.1 billion. By the year 2000, the value had jumped to \$26 billion, and by 2002, it had reached \$36.4 billion. (If you are at all into exponential curves, just connect the dots and get your jollies.) In 2002, China was the world's leading exporter of telecom equipment with \$36.4 billion, followed by the U.S. with \$21.6 billion; the United Kingdom with \$17.4 billion; the Republic of Korea with \$15.8 billion; and Germany with \$15.4 billion.

For years, China has been pouring their best and brightest into that nation's engineering schools. As a consequence, in 2001 the Chinese had 219,563 engineering grads; the European Union had 179,929; Japan had 104,478; Russia had 80,409; and the U.S. brought up the rear with only 59,536. And many of China's engineering grads go on to chase terminal degrees. Back in 1985, China managed to turn out only 125 Ph.D.'s in engineering; however, by 2001 its number of doctorates increased to 7,600. (That's what exponential growth is all about!) In the United States, since the mid-1990's the number of doctorate degrees awarded in engineering dropped by 15%.

When intellectual capital is of pivotal importance to the nation's economic competitiveness, why are American students at the tail end in engineering? That's an easy one to answer: Our K-12 kids are woefully deficient in mathematics. A test of 15-year-old students was administered by the Program for International Student Assessment (PISA) in the spring of 2003 and the results were released in December of 2004. Of the 39 countries used in the comparisons, twenty-three countries scored better than the U.S. in mathematics literacy and a full 25 did better in problem solving. While American kids were slightly ahead of their counterparts in Mexico and Turkey, they tested well below the leaders of the pack: Finland, Korea, Canada, Hong Kong-China, and Japan. Concluded the PISA report:

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Mathematics plays a central role for the success of individuals and societies so most countries attach a great importance in securing high performance standards in mathematics throughout their education.

Americans don't get it. In 1981, an important report called "A Nation at Risk" observed as follows:

If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war... We have, in effect, been committing an act of unthinking, unilateral educational disarmament.

Exactly twenty years later, another important report, this one called "Road Map for National Security," stated:

The harsh fact is that the U.S. need for the highest quality human capital in science, mathematics and engineering is not being met... Second only to a weapon of mass destruction detonating in an American city, we can think of nothing more dangerous than a failure to manage properly science, technology, and education for the common good over the next century.

Within the realm of engineering, in 1970, 4,631 citizens and 568 foreign nationals were awarded doctorates in the U.S. In 2000, 3,260 U.S. citizens and 2,161 foreign nationals were awarded doctorates. According to a National Science Foundation report, in 2000, immigrants comprised 38% of the employees in science and engineering with doctorates, and immigrants made up 29% of those employees with master's degrees.

If one wanted to pick a time period that could be used in the future to mark the beginning of the irreversible decline in the U.S. economy, certainly the 2003 and 2004 school years would be the leading contender. Dan Mote, the president of the University of Maryland has observed: "It's not hyperbole to say that our country has been built by the international scientists and engineers who have come here in the past 50 years." But during the 2003 and 2004 school years, that great army of foreigners that marched into our graduate schools of engineering each year suddenly

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began to disappear. The Council of Graduate Schools has published a report titled, "Findings from U.S. Graduate Schools on International Graduate School Admission Trends," that contains the following information for the period between 2003 and 2004:

- The number of applications from abroad to U.S. graduate programs declined by 28%.
- The number of applications from abroad to U.S. graduate engineering programs declined by 36%.
- The number of applications from China to U.S. graduate programs declined by 45%.
- The number of applications from India to U.S. graduate programs declined by 28%.
- The proportion of U.S. institutions reporting a decline in international applications is 88%.

The smart money is betting that the foreign students won't be back.

In 2002, there were 58,262 foreign students enrolled in America's graduate engineering programs (49% of the total) and 61,346 U.S. students. If the U.S. loses its ability to attract students from far away places with strange sounding names, and if the U.S. can't produce homegrown engineers because of our dysfunctional educational system, where will the multi-degreed engineers that our high-tech industries need come from? Considering the fact that 13 other countries rank above the U.S. in the percentage of 24-year-olds with either a math or science degree, it is very difficult to imagine that the U.S. will—over the long haul—sustain its lead in high tech with an indigenous workforce.

American academics—in particular professors from Harvard's B-School—have always reassured us with the shibboleth: If we educate 'em, they will stay. It turns out that this is just one more motto about American society that is no longer operative as a result of the great sea change that is rolling over the globe. A full 25% of all Ph.D.'s awarded by the universities in the U.S. are received by Chinese students. And while many gain experience at American high-tech firms after receiving the sheepskin,

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no small number now pack up and head back home to participate in the economic development of their country—and make a lot of money in the process. And, of course, Beijing is doing everything in its power to lure them back. And this reverse brain drain is not only a problem for the U.S.; it is also becoming a problem for Taiwan. Notes University of Maryland professor Michael G. Pecht, an expert on the electronics industries of Asia:

There are Taiwanese who worked for Motorola or Intel for 20 years or so and gained experience in the U.S. semiconductor industry, then spent 3 to 5 years at TSMC (Taiwan Semiconductor Manufacturing Co of Hsinchu, the world's largest contract chip maker) and UMC (United Microelectronics Corp. in Taipei, another highly successful contract chip house), and now they're in China.

As a result of the experience that they have garnered in the U.S., Chinese electrical engineers are making progress that boggles the mind. In 1995, U.S. chip makers worked with semiconductors that had feature sizes of .35 micrometers; whereas the best Chinese makers were working at the 3.00 micrometer level. But by 2003, the U.S. companies were working at the .10 level, and the Chinese were hot on their heels at .13 micrometers. In other words, the Chinese had improved their chip-etching sophistication by over an order of magnitude between 1995 and 2003. There is no question that the reverse brain drain from the U.S. to China will go from a trickle to a river to a flood as Beijing continues to pour on the research and development.

Everybody Wants to Fly to China

It should come as a surprise to no one that there is a direct relationship between increases in Gross Domestic Product and growth in air travel: As a country gets more prosperous, its people fly more often—for business and pleasure. Considering that it is one of the two legacy lines that currently has permission to fly into China, United Airlines would appear to be making a wise decision when in October of 2004 it announced that by March of 2005 it would increase the number of international flights by 14% and decrease the number of domestic flights by 12%. There is no question that Boeing's 777 will have a leading role to play in the increased international flights. United was the 777's launch customer, and it presently operates 61 Boeing 777-200's—more than any other airline. (As the 777's, that carry about 300 passengers replace the

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747's, that carry about 410 passengers, the airports of America—especially LAX—will experience significantly more take-offs and landings.)

While Delta does not have permission to fly into China, it certainly wants to have. As part of Grinstein's Delta Solution, the airline has launched a full-court press to inform the Department of Transportation (DOT) about the positive impact on the economy of the Great State of Georgia that would result from such permission. (Delta is the largest tenant at Atlanta's Hartsfield-Jackson International Airport, and it handles nearly 78 percent of its passengers.) Mr. Grinstein wrote as follows: "Delta is extremely grateful for the outpouring of support for its application so far. The DOT has received more than 12,000 letters, underlining the importance and need for service between the growing China market and Atlanta, our Nation's largest hub." If it receives the requested permission (and entreaties by nearly all the elected officials of Georgia certainly cannot be denied), it will use its Boeing 777 aircraft—it has eight with an additional five on order—which will feature Delta's award-winning BusinessElite service. Mr. Grinstein made no mention of organic baby food being hawked on the run between Atlanta and the Middle Kingdom, but perhaps that was just an oversight.

Airliner Purchases Shift to Asia

With America's airline industry in disarray, it is only natural that the legacy lines would slam the brakes on buying airplanes. So far in 2005, cash-strapped U.S. carriers have accounted for only 5% of the civil jet orders, far down from their 30-40% share in past economic recoveries. Airlines in Asia—particularly those in Japan and China—have taken up the slack.

In April of 2004, when Boeing was starting its sales campaign to market the 787—a widebody, double-aisle, twin engine bird that was designed specifically to fly point-to-point on routes over the Pacific—All Nippon Airways Co. (known in the U.S. as ANA) became the 787's launch customer when it ordered 50 jets. This was the first time in Boeing's Commercial Airplane Division's history that one of America's legacy airlines was not the Boeing launch customer: A sign of the times.

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In December of 2004, Japan Airlines—known in the U.S. as JAL—announced its decision to buy 30 of the mid-size jets with options for another 20 aircraft. Both of these purchases were made with the Chinese Mainland in mind. In February of 2005, Nagoya, Japan's husky industrial city, inaugurated Certrair, a big international airport, and both ANA and JAL will use it to fly their 787's to secondary cities in China.

In January of 2005, the President of Boeing's Commercial Airplanes and China's ambassador to the U.S. signed a preliminary agreement for the sale of 60 787-8's to the six Chinese carriers—China Southern, Air China, China Eastern, Hainan Airlines, Xiamen Airlines, and Shanghai Airlines. All of these airlines will have at least one of the 787-8's to fly during the Summer Olympics in Beijing—which is scheduled to begin on the eighth day of the eighth month of 2008. (In the Chinese culture, the number eight is a symbol of prosperity.)

It has been estimated that China's airlines will purchase about 2,300 passenger planes between 2005 and 2023. It would seem that the probability is very high that Chinese airframe companies will build a fair number of these airliners in the Middle Kingdom. The nine engineers that rule China have formulated an industrial policy that includes assailing their trading partners' long suits. It was not very long ago that Italy's strength was in high fashion apparel. The Chinese went at this segment of the industry with a will; consequently, the high fashion segment in Italy's apparel is now highly fragmented, and Italy has the dubious distinction of being known as the "sick man of Europe," a title held by the English in the 1970's. Germany, which has no domestic source of liquid hydrocarbons, has long earned foreign exchange by making and marketing very sophisticated machine tools. Now the Chinese have targeted Germany's machine tool market, and they are buying German machine tool companies in order to obtain their designs and patents. It seems highly likely that the Chinese will go after America's airframe business, this nation's main source of foreign exchange. In June of 2005, Boeing signed contracts with Chengdu Aircraft Industrial Group, an affiliate of China Aviation Industry Corp. I, and Hafei Aviation Industry Co, an affiliate of China Aviation Industry Corp. II, to build parts for Boeing's fuel-efficient 787. Chengdu will make composite rudders, and Hafei will make metallic parts and assemblies.

International Discount Lines

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One of the main reasons that all of the legacy lines are interested in seeking salvation in the long-haul runs of the International market is because it contains routes where the discounters are conspicuous by their absence. But lately a specter of change has been seen flying through the gray Atlantic mists—one that speaks with an Irish brogue. Having been beaten soundly about the head and shoulders with a shillelagh by the likes of Ryanair (Europe's equivalent of Jet Blue), Aer Lingus—Ireland's major carrier—decided the time had come to ditch its 747's, to buy eight Airbus A330-300's (a medium-to-long range airliner capable of carrying 295 in three classes), and to become an *international* discounter. Using America's Southwest as its paradigm, Aer Lingus has slashed business-class fares by as much as 60%. For example, the price of an unrestricted ticket in business class from LAX to Dublin has plummeted from \$3,695 each way to \$1,504. According to Aer Lingus's executive, Jack Foley, the airline "realized what's happening here (in the USA) and the intraEuropean market will eventually migrate to the Atlantic. We wanted to position ourselves to recognize that migration."

There is no question that legacy lines and discount lines will eventually be crossing both the Atlantic and the Pacific. And the airliner that most will be using is the Boeing 787 because it is so very miserly with its jet fuel supply.

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CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based upon a review of the data presented above:

1. As the competition between the remainder of the legacy lines and the discounters becomes increasingly cutthroat, air fares will continue to fall. Because the demand for air travel—particularly air travel in the tourist class—has a significant amount of responsiveness to price changes (a high degree of elasticity), an increasing number of passengers will be going to LAX. Airlines will quickly respond to this influx by moving "equipment" into this market. These planes will further clog already congested taxiways and runways; as a consequence, more planes will spend a greater amount of time idling (jet engines burning and turning slowly without transmitting power) in a queue, waiting to take-off. The result will be a great miasma of imperfectly burned distillate that will flow into the cities that are contiguous to the airport: El Segundo, Westchester, Inglewood, Hawthorne, Manhattan Beach, etc. This pervasive cloud of pollution will significantly increase the incidence of lung and throat cancer, emphysema, and chronic bronchitis among the residents of those communities.

2. Because profitability in the airline industry is to be found in the high end of the demand curve—in the business class and first class cabins—the remaining legacy lines will shift their focus to premium services. This catering to the carriage trade will result in the use of smaller planes that have been uniquely outfitted (such as those used in United's experiment with Boeing 757's on the Los Angeles and San Francisco to New York runs.) This shift from larger to smaller airliners will result in more idling airliners further clogging taxiways and runways, and producing more clouds of pollution that poison people in the surrounding communities.

3. As Delta Air Lines moves under the aegis of Chapter 11 of the Bankruptcy Code (where Northwest will probably soon be found), it will continue sloughing off its older and larger aircraft and substituting newer and smaller aircraft. A highly regarded industry analyst has estimated that Delta—a major player at LAX—will reduce its capacity by 15% from current levels, which is about the same as United and US Airways reduced

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their fleets when they sought the protection of the bankruptcy code. This reduction in capacity of large, double-aisle, widebody birds by a legacy liner will be replaced by small, single-aisle birds owned by the discounters. The short-term result will be more airplanes idling at LAX and spewing pollution into the air as they sit and wait in the queue to take off. The long-term result will be sickness and deaths in the communities surrounding the airport.

4. As a result of its coming merger with the discounter, America West, US Airways will "de-emphasize" its hub in Philadelphia and shift its attention to growing markets in the West. In making this move, it will use small, single-aisle airplanes pushed forward with robust engines. The result will be even more planes flying in and out of LAX and bombarding the surrounding communities with pollution.

5. As China continues to emerge as the world's economic powerhouse, business people will flock to the few airports that function as the gateways to the Orient, all wanting to fly to the Middle Kingdom to "get a piece of the action." Because of the long distances involved in flights to Asia and because of the high cost of jet fuel (as the demand side of the equation increases and the supply side of it decreases), travelers over the Pacific's long, thin lines will fly on the most fuel efficient point-to-point planes that the CEO's of the airlines can get their hands on. In the near term, this means a massive replacement of 747-400's with 777-ER's, and in the long-term, an even more massive replacement of 767-ER's and 777-ER's with 787's. It is also important to understand that the emergence of China as the force to be reckoned with is a change in economics that is analogous to a tectonic plate shift in geology. Because the CEO's of the airlines in Japan and China probably have a better understanding of the long-term ramifications of this historic rearrangement than do their counterparts in U.S. airlines, they have been loading up on 787's to be ready for the explosion in air travel that most surely will come. However, U.S. companies—both legacy and discount lines—will eventually comprehend what the future has in store, and they will make the requisite commitment to purchase 787's. (Northwest was about to make just such a commitment when it became apparent that it very likely could end up in Chapter 11.) The result will be great swarms of relatively small, double-aisle planes flying in and out of LAX. And they will spend much time idling in a jammed-up airport whose runways resemble the I-405 at 5:00 p.m. And this myriad of planes will produce a

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great brown cloud of pollution that will waft toward the cities of the South Bay and choke the people who dwell therein.



September 15, 2005

Ms. Karen Hoo
 LOS ANGELES WORLD AIRPORTS
 Long Range Planning
 7301 World Way West, Room 308
 Los Angeles CA 90045-5803

Re: **Comments to South Airfield Improvement Project EIR**

Dear Ms. Hoo:

Kilroy Realty Corporation is a real estate investment trust, active in the commercial office and industrial property markets of Southern California.

Near LAX Airport, Kilroy Realty Corporation owns and manages approximately 1.3 million square feet of office and industrial properties, including

- 999 North Sepulveda Boulevard, at Imperial Highway and Sepulveda (across the street from LAX), in El Segundo
- 2240, 2250, 2260 and 2270 East Imperial Highway (Kilroy Airport Center – also across from LAWA-owned LAX property), in El Segundo
- 2031 East Mariposa Avenue, near Nash, in El Segundo
- 181, 185 South Douglas, in El Segundo
- 2260 East El Segundo Boulevard, in El Segundo
- 2265 East El Segundo Boulevard, in El Segundo

As an immediate neighbor to LAX, and to the South Airfield, we have reviewed the South Airfield Improvement Project EIR and offer the comments below.

With regard to the EIR's analysis of Runway 7R/25L being relocated 55.42 feet to the south of its current location, the relocation of corresponding utilities, lighting, signage, grading and drainage, and development of a new center taxiway, please note the following:

1. The Notice of Completion (NOP) related to the EIR states:
"The purpose of these improvements is to enhance the safety of operations at the Airport by reducing the potential for runway incursions."
 NOP, Page 1

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Note: Data sources and references on request

Comment letter re South Airfield EIR
 Ms. Karen Hoo
 September 15, 2005
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Comment letter re South Airfield EIR
 Ms. Karen Hoo
 September 15, 2005
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2. While there is occasional mention in the EIR of "New Large Aircraft" (NLA) such as the Airbus A380, there is very limited acknowledgement in the EIR that the runway alternative (to move Runway 7R/25L fifty-five (55) feet to the south) will help to accommodate the newer, larger airplanes such as the Airbus A380. Here is one of the only references in the EIR:
"...considering a number of runway alternatives that would both enhance the safety and efficiency of the south airfield and provide the ability to accommodate New Large Aircraft (NLA)".
 SAIP EIR, Introduction, Page 1-4

3. Instead, the EIR and its analysis focuses on runway incursions and safety as the primary basis for needing to relocate runway 7R/25L 55 to the south and to construct a new parallel taxiway between Runways 7R/25L and 7L-25R.
"...a primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions."
 SAIP EIR, Project Description, Page II-2

"The primary objective of the new center taxiway is the minimization of the potential for runway incursions."
 SAIP EIR, Project Description, Page II-10

4. The EIR implies that the South Airfield at LAX is unsafe:
"For the four-year period from 2000 through 2003, LAX experienced the highest number of runway incursions of any U.S. commercial airport."
 SAIP, Project Description, Page II-2

5. However, the EIR acknowledges the following with regard to safety considerations:
"LAX operates in a safe and efficient manner and will continue to do so during and after the proposed modifications to the south airfield."
 SAIP EIR, Project Description, Page II-21

6. Further, while LAX may have the highest number of incursions mathematically, it is one of the largest airports in the world:
"Los Angeles International Airport (LAX) is the world's fifth busiest passenger airport..."
 LAWA's website, www.lawa.org, General Description, Page 1

7. From a review of a report called "FAA Runway Safety Report, Runway Incursions Trends and Initiatives at Towered Airports in the United States, FY2000-FY2003, August 2004", which report is referenced in the EIR, the report includes both the total number of

runway incursions, as well as the annual rate of runway incursions per 100,000 operations at each airport studied.

What the EIR fails to point out is that per the FAA Runway Safety Report, there are other major airports studied which had higher rates of runway incursions than LAX during some of the same study years:

Runway Incursion Rates per 100,000 operations at each Airport

	Los Angeles (LAX)	San Francisco (SFO)	Boston (BOS)	St. Louis (STL)	Phoenix (PHX)
Years					
2000	1.28	1.37	1.76	1.23	1.12
2001	1.15	0.49	1.2	1.64	1.59
2002	0.94	1.14	0.25	1.54	1.04
2003	1.43	0.89	0.52	1.9	0.34

FAA Runway Safety Report, FY2000-FY2003, August 2004, Pages 78, 80, 82, 98, 102

8. Further, the FAA Runway Safety Report referenced in the EIR shows that safety is actually improving at LAX, and that all the runway incursions did not take place on the South Airfield:
"Since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions."
 FAA Runway Safety Report, August 2004, Page 37

"LAX has reported zero Category A runway incursions for the past three fiscal years."
 FAA Runway Safety Report, August 2004, Page 37

From FY 2000 through FY 2003, the number of Category B runway incursions at LAX has decreased from four events to zero events."
 FAA Runway Safety Report, August 2004, Page 37

[Figure 17 in the report graphically reflects that not all the runway incursions at LAX occurred on the South Airfield.]
 FAA Runway Safety Report, August 2004, Page 37

9. The FAA Runway Safety Report compliments LAX/LAWA in terms of how LAX has reduced the incursions by management's efforts which implemented better pilot education, physical improvements, and procedural improvements in the LAX control tower:
"This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport

infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors."
FAA Runway Safety Report, August 2004, Page 37

10. It would seem that if LAX has been improving safety and reducing the rate of incursions, then why is such a draconian measure being planned which would move the south runway 55+ feet closer to the populace of the City of El Segundo?

If the real purpose of the SAIP is to "enhance the safety of operations at the Airport by reducing the potential for runway incursions" as the Notice of Completion states, and if LAX has been making progress in decreasing incursions as the FAA has stated in their report, then why is it necessary to move the southernmost runway closer to an existing populace?

Wouldn't it make more sense to increase runway safety management efforts by LAX and make enhancements to control tower procedures, to further reduce incursions, rather than moving the runway?

11. Based on the above, could it be that LAWA's real and primary purpose for relocating Runway 7R/25L a total of 55.42 feet to the south and developing a new center taxiway is to accommodate the new large aircraft (NLA) such as the Airbus A380?

12. If accommodating the Airbus A380 and similar aircraft is the primary purpose or another purpose behind moving Runway 7R/25L 55+ feet to the south, then where in the EIR is a discussion of the environmental impacts the larger aircraft will have?

Neither the previous LAX Master Plan EIR nor the SAIP EIR has thoroughly evaluated the environmental impacts of having the new large aircraft operate near Imperial Highway and the populace of the City of El Segundo. If the primary reason for the South Airfield Improvement Project is to accommodate the new large aircraft, then such an environmental analysis of NLA and corresponding impacts should be done.

While we have heard that the new generation of larger aircraft will be environmentally superior to present-day aircraft, that evaluation should be part of the subject EIR.

SAIP-PC00015

Until this environmental impact analysis is completed to supplement the SAIP EIR, and the public given a chance to review, we urge that the SAIP EIR not be certified.

13. With the South Airfield being moved over 55 closer to Imperial Highway and to the City of El Segundo's border, there was no discussion in the EIR of mitigation measures to help buffer the increased LAWA operations on the South Airfield from El Segundo's border. This is a land use impact that should be addressed in the EIR and its mitigation measures.

We request that LAWA propose and implement mitigation measures to aesthetically buffer Imperial Highway, with screening, landscaping and irrigation improvements along the southern border of LAX, median landscaping and irrigation improvements along the entirety of Imperial Highway where Imperial Highway parallels the South Airfield. Such mitigation measures should be incorporated into the SAIP EIR before it is certified.

Very truly yours,

John T. Fucci, CPM®
Senior Vice President
Asset Management

SAIP-PC00015

Sep-15-05 18:26 From:
MAXINE WATERS
MEMBER OF CONGRESS
South District, California
CHIEF DEPUTY WHIP
COMMITTEES:
FINANCIAL SERVICES
SUBCOMMITTEE ON MONITORING AND
COMPLIANCE OVERSIGHT
MANAGING ECONOMIC
JUDICIARY
SUBCOMMITTEE ON CONSTITUTIONAL
AND FEDERALISM
SUBCOMMITTEE ON CHILD, YOUTH, AND
FAMILY SECURITY

Congress of the United States
House of Representatives
Washington, DC 20515-0535
September 15, 2005

T-640 P. 01/07 F-300
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Los Angeles World Airports
Long Range Planning
Attention: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

Re: SAIP Draft EIR Comments

Dear Ms. Hoo:

This constitutes comments to the draft environmental impact report (EIR) for the South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). On or about August 1, 2005, Los Angeles World Airports (LAWA) prepared a project-level tiered Draft EIR pursuant to the California Environmental Quality Act (CEQA). The proposed project consists of the southerly relocation of Runway 7R/25L 55.4 feet and the construction of a center parallel taxiway. The stated purpose of these improvements is to enhance the safety of airport operations by reducing the occurrence of runway incursions. The Draft EIR provides additional information on the construction of the SAIP, but virtually none on its post-construction impacts.

General Comments

The Draft EIR fails to analyze the operational impacts of the SAIP. This material omission renders the document useless as a tool for evaluating the long-range environmental impacts from the south airfield.

SAIP-PC00016

Sep-15-05 18:28 From:

T-640 P. 02/07 F-300

For nearly all of the disciplines, the DEIR analyzes impacts only during the temporary construction phase of the SAIP. The DEIR's failure to analyze long-term or post-construction environmental impacts means that no analysis exists of the SAIP's long-term or post-construction impacts.

The DEIR asserts that "the potential operations-related effects on other environmental resources were adequately addressed in the LAX Master Plan and no further analysis is required regarding those resources in this document." (DEIR, p. 1-4.) I respectfully disagree. By and large, the Master Plan EIR does not analyze the long term impacts associated with the SAIP itself. Instead, the Master Plan EIR, being a programmatic level document, assesses post-construction impacts of the entire Master Plan. Thus, post-construction on-airport surface transportation impacts from Alternative D were analyzed, but they were not analyzed for this project. (See FEIR, p. 4-396.) Thus, off-airport surface transportation impacts from Alternative D were analyzed, but they were not analyzed for this project. (See FEIR, p. 4-447.) The same is true of noise, air quality, water quality, biotic communities, and human health. (See FEIR, pp. 4-717, 4-786; 4-905, 4-1371, 1402.)

The fallacy of ignoring long-range impacts that derive solely from the SAIP is that it assumes that the whole Master Plan program will be built. But indications are to the contrary. Over the past 18 months, very public indications of a shrunken Master Plan have come from various quarters, including: the new mayor who ran on a platform opposed to Alternative D; the election of a new City Councilman representing the airport who opposes Alternative D; the appointment of a new Board of Airport Commissioners, including the appointment to that board of the former president of the grassroots organization that sued the City over the Master Plan; discussions by City Councilmembers in open chambers during the approval of the Master Plan to the effect that their votes were not intended to approve the Ground Transportation Center and other controversial elements of the Master Plan; and the creation by the former Councilwoman for the 11th District of a specific plan that segregated the Master Plan projects and assigned heightened scrutiny to many projects. Hence, the SAIP should be viewed and analyzed as a stand-alone project.

SAIP-PC00016

This document does not fulfill LAWA's responsibility to analyze the full and true impacts of the SAIP. It is reasonable to assume that a program smaller than and different from Alt D Master Plan will be implemented by the sponsor. The environmental documentation is devoid of smaller Master Plan construction scenarios. One scenario is the SAIP in isolation. Another reasonable scenario is the SAIP in conjunction with the build-out of the "green-light" projects without the yellow-light projects.

Because of the probability of a Master Plan build-out program leaner than that analyzed in the Master Plan EIR, the DEIR should not rely on a tiered analysis.

Document not User Friendly

The document is difficult to read. It relies excessively on acronyms. It is replete with technical jargon that goes unexplained. It makes a great number of references to other documents, without summarizing that relevant portion of the document. It often references other materials, including the Master Plan EIR, without pinpointing the page and paragraph where the information can be found. Important predicate information, such as the nature and severity of LAX runway incursions, is omitted.

Alternatives not Considered

Not all reasonable alternatives to the SAIP were considered. For example, fully staffing the LAX control tower did not appear to be considered in either the Master Plan EIR or the SAIP Draft EIR. Relocating the hold bars farther away from 25R did not appear to be considered. These alternatives should be fully analyzed in the Draft EIR.

SAIP and Incursions

"A primary consideration in the selection of an airfield design was the elimination or reduction of runway incursions." (DEIR, p. II-2) A runway incursion is defined broadly and relates to collision hazards or loss of required aircraft separation. Numerous situations may

SAIP-PC00016

create a runway incursion. The SAIP's proposed center taxiway appears to address one specific type of incursion, i.e., where an aircraft taxis beyond a runway hold bar. Of the runway incursions at LAX between 2000 and 2003, please describe those in which an aircraft taxied beyond the runway hold bar.

The FAA categorizes runway incursions based on their severity. How serious were the incursions reported at LAX between 2000 and 2003? Into what categories did the incursions fall?

How, if at all, would the SAIP eliminate or reduce other types of runway incursion (such as operational error, or vehicle/pedestrian deviations)? Last year, an alarming near collision took place in which a 747 prepared to land onto the same runway in which a 737 was preparing to take-off. How would the SAIP eliminate this kind of incursion?

The SAIP project description appears to depict taxiways placed diagonally from runway 25L that intersect the center taxiway and extend in an uninterrupted manner through runway 25R to the south terminals. (See Exhibit 2-1.) (Other taxiways appear to require a directional course change at the center taxiway.) In other words, it appears that unbroken high speed taxiways remain in the SAIP airfield design of precisely the kind that currently give rise to runway hold bars incursions. Please describe the physical and operational characteristics of the new center taxiway that will prevent aircraft from taxing beyond the hold bars. Please explain why the new SAIP was designed with some taxiways in the middle third of the runway complex that do not require the pilot to turn left onto the center parallel taxiway.

SAIP and Regional Solution

How will the SAIP encourage other regional airports to assume a greater share of passenger and cargo aviation demand? How will the SAIP encourage airlines to distribute aviation service from LAX to regional airports? How does this SAIP "distribut[e] commercial service not essential to the LAX international gateway role to other airports in the region"? (See DEIR, p. II-1.)

SAIP-PC00016

Hydrology

A hydrology mitigation measure requires the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works to upgrade regional drainage facilities to accommodate current and future flows within the Dominguez Channel and other watersheds. (MM-HWQ-1, DEIR, p. IV-22) The actions of these bodies lie outside the jurisdiction and control of LAWA. LAWA should secure a binding agreement with Los Angeles County and/or the Department of Public Works prior to significantly impacting the Dominguez Channel Watershed.

Air Quality and Human Health

The impact assessment is speculative because it assumes an unrealized air quality plan, the Mitigation Plan for Air Quality (MPAQ). Since the MPAQ is not yet in existence, it is impossible to determine whether the MPAQ will meet its goals. The MPAQ should be complete before a meaningful assessment of emissions and health impacts can be made.

It appears that scientific study of hazardous air pollutants from jet emissions and commercial airports is relatively scarce. I encourage the gathering of information on the air quality impacts of LAX and commercial airports through future surveys. Please, provide a concise summary of previous studies of LAX emissions.

Noise

Notably, the Draft EIR concludes the "temporary noise impacts would be significant and unavoidable." (DEIR, p. IV-239.) Sensitive land uses (residences, schools, and churches, etc.) will be newly exposed to 65 CNEL and people already exposed to 65 CNEL will be exposed to still louder noise. Residents will be awakened, school disrupted, prayer interrupted. What consideration was given to avoiding these "unavoidable" impacts by such measures as:

- Temporarily shutting gates?
- Obtain voluntary agreements with airlines to temporarily distribute flights to other regional airports?

SAIP-PC00016

- Secure the appropriate waivers from the FAA to temporarily cap operations at levels consistent with three runways, instead of four?
- Accelerate the sound proofing program?
- Complete the sound proofing program before commencing the SAIP?

Biotic Communities

The habitat unit analysis is disappointing because it results in such a small amount of restorable land. 126 acres of total impacted land is exchanged for merely 17 acres. Is LAWA constrained from using greater habitat unit values?

Alternatively, if LAWA is so constrained, may LAWA employ a replacement ratio greater than 1:1?

The Ballona West Bluff should be considered by LAWA as a habitat restoration site. It is superior to the proposed El Toro site because of its proximity to LAX. The Bluff site is approximately two miles from the SAIP. At 44 acres, it is large enough to accommodate the proposed habitat area from the SAIP area. The bluff top shared many of the same species found or potentially present at the SAIP site. Furthermore, it shares the same compacted sandy soil as LAX. The bluff, until recently, was the site of vernal pools.

The bluff lies north of LAX, so that birds that used the bluff would not interfere with the airport flight tracks, which run east and west.

The species described in the DEIR are nearly extirpated from the Westchester/Ballona area. Thus, habitat restoration in El Toro (Orange County) exacerbates the threat to these species' continued survival locally.

The Bluff owner is a willing seller. In combination with other revenue sources, a sufficient portion of the Bluff could be acquired to make local restoration a viable alternative.

When addressing potential impacts to biotic communities from the SAIP and future modernization projects, I strongly recommend

SAIP-PC00016

that LAWA obtain input from the community of local environmentalists and academics who possess expert knowledge of the local ecosystems.

Land Use

It is unclear how LAWA determined that the SAIP is "consistent with applicable local land use plans and zoning." (DEIR, p. I-3) On March 30, 2005, under the authority given to the Los Angeles County Airport Land Use Commission (ALUC) by the Public Utilities Code, the ALUC took final action and upheld the determination that the Master Plan is inconsistent with the County Land Use Plan. The inconsistency determination arises in large part from the SAIP and the altered noise contours it creates. Thus, LAWA's determination contradicts that of the County of Los Angeles. Please explain LAWA's consistency determination in light of this contradiction.

Conclusion

The individual and cumulative impacts of Alternative D, including the SAIP, upon the health, safety, peace of mind, and education of residents and students around LAX are of substantial concern to me. The Draft EIR recognizes potentially significant impacts arising from the SAIP to hydrology and water quality, off-airport surface transportation, air quality, human health risks, noise, land use, and schools. The Draft EIR fails to properly propose mitigation methods for these impacts. Furthermore, the Draft EIR should consider certain reasonable alternatives not discussed in the document. Due to the uncertainty of the scope of implementation of the LAX Master Plan, the SAIP should be analyzed as a stand-alone project. Thus, I strongly urge that LAWA revise the Draft EIR to take these points into account and that it take no action to approve the SAIP as currently proposed.

Very truly yours,



Maxine Waters

Member of Congress

SAIP-PC00016

L. Diane Sambrano
3640 West 111th Place
Inglewood, CA 90303
September 15, 2005

LAWA
Long Range Planning
7301 World Way West
Room 308
LA, CA 90045-5803

RE: Comments Responding to DEIR for SAIP

The Draft Environmental Impact Report for the South Airfield Improvement Projects begins on the premise that all the projects of the LAX Master Plan will be completed. In doing so there are no impacts studies included if only portions of the Master Plan are completed.

Among the findings of the report are conclusions drawn based on what the writer's anticipate/expect to find rather than unbiased studies. Pollutants of interest were limited to only 6 predetermined pollutants. This continues the practice of limiting truth of impact in air quality.

There are misrepresentations throughout the report making belief in the findings questionable.

These include:

Table 3-1 item 75 - Land for the YMCA has not been purchased even though it was implied it was in youth activity operation in the Master Plan EIR. It is possible that the door may never be built much less open for business.

Table 3-1 items 70, 71, and 72 do not have plans submitted much less construction begun. The current movie industry dip in ticket sales may very easily make the proposed theatres more never completed projects promoted for image enhancement during election season.

Exhibit 4.3-4 Indicates there were no Air Quality Grids placed East of Hawthorne Blvd. as if "just like magic" all pollutants hit the Center Line of Hawthorne and the Wonder Filter miraculously renders air quality suddenly mountain fresh before the next sidewalk curb.

Exhibit 4.5-3 Does not include all Faith-based Institutions even within blocks covered - most obvious among those not indicated is the 20,000 seat Faithful Central Bible Church currently using "The Forum" as its meeting place.

SAIP-PC00017

Exhibit 4.5-7 referred to in discussions regarding Night Awakenings on page IV-167 is generated by a "study" which fails to take into account those residence addresses that actually call into the 64-NOISE phone in disturbance report line. OOPS all those times my address appears on the monthly reports and still I'm not on the map! No wonder my neighbors told me they thought it was a waste of my time. Good golly, I must have spoken to all the field operations staff many who know my voice while I was phoning in my sleep!!!!!! This exhibit alone stands as evidence that the local community is simply ignored by those with a "money- above- all- mentality!!!!!!

It is heart warming to know that 1,400 cancer cases per million is so acceptable that the AQMD map of high risk areas indicating LAX is less healthful can be so happily explained away. Blaming "on-road mobile sources" while completely denying that increasing traffic to the area to board the additional air traffic fails to connect cause and impact. Wow, how impressive a new study will be reintiated! This somehow is going to make it okay that the study was not performed prior to project approval.

How ever so amazing, that "risks in this area were not estimated directly because no permanent monitoring station for Toxic Air Contaminants was located at or near LAX as part of the MATES-II Study. Furthermore, insufficient data were collected by SCAQMD to derive the direct contribution of LAX operations to cancer risks in surrounding communities." (4.4.3.1 page IV-131) Those of us in the "surrounding communities" are supposed to be happy there is no study to tell us our neighbors high rate of cancer death need not be a concern since we haven't been charted in an official study. Somehow I doubt this non-study would be sufficient to suggest that construction begin quickly if a more affluent community were in the area that had simply been unstudied.

Single Event Noise and Awakenings 4.5.2.2.1 uses as its source a report from 1997 yet fails to have any base for tracking actual outreach to the community near LAX where midnight to 6:00 a.m. flights are routinely dismissed as unavoidable due to Asian Noise restrictions. While most intrusions on sleep tend to go unreported to the noise phone line simply because doing so is an even greater inconvenience does not mean that sleep was undisturbed. Sound insulation may diminish the number of persons who report awakenings but it fails to address the violation of promises to limit over resident midnight to 6:00 a.m. landings and take-offs.

By far the most disgusting insult to the Spanish-speaking community most impacted by the entire project is that they were asked to respond to a document that was not made available in a language they could understand. While an attempt to include the Spanish-speaking community was added for the SAIP, it is

SAIP-PC00017

painfully clear, from speaking directly to the Spanish responders at the September 2005 Workshop, that they had received only a filtered verbal summary (if that) of what the SAIP included! This disregard for what they had as a basis for asking questions would be similar to asking those reading this to share their considerations regarding the post lapserian philosophy of predestinational origin.

While those who have routinely voiced our observations to the LAX Master Plan have been characterized as attempting to stop progress, it is my belief that we are asking that those so determined to increase capacity to carefully consider the results of failure to wisely analyze impact. Historians evaluate all civilizations not only by their ability to generate wealth, create grand transportation systems or build great architectural wonders but also by the impact upon those used or abused in the building of those creations. Does the 2005 Los Angeles City Council wish to be remembered in the same light as the Egyptians whose pyramids were built slaves or more recently as plantation owners who disregarded the human impact of their textile/tobacco industry. I wonder how far the council members have distanced themselves from the pesticide dusting on field hands that pick the fruits we eat. Through the ages of time financial profit has overlooked the human cost. The Impact Report for the South Airfield Improvement Project fails to address the many human quality of life impacts by not even bothering to conduct genuine studies or frequently not including information collected by LAX as part of those studies.

To pretend that this project is about safety or security is failing to realize that the significant "threats" this project mitigates is pilot or taxiway protocol which could be addressed by training. In truth this project is to accommodate the New Larger Aircraft which due to higher operating costs may not even be frequently used --- Does anyone remember the Super Sonic Aircraft Projections?

It is my hope that future project impact reports will be far more truthful and less "already determined" result based. Regional Air-Traffic options contribute far more to safety and security concerns than overloading an already overloaded airport.

Sincerely,



L. Diane Sambrano

SAIP-PC00017

September 15, 2005

LAAC Response to SAIP DEIT
LAWA
Long Range Planning Dept.
Attn: Karen Hoo
7301 World Way West Rm 308
LA CA 90045-5803

Re: Comments from the El Segundo Aviation Safety and Noise Abatement Committee (ASNAC) on the Draft Environmental Impact Report for the LAX South Airfield Improvement Project

Dear Ms. Hoo:

The Aviation Safety and Noise Abatement Committee (ASNAC) is a local citizens committee that seeks to examine noise and safety related issues emanating from LAX. The purpose of this letter is to provide committee comment on the Draft Environmental Impact Report (DEIR) issued recently by LAWA as a part of the South Airfield Improvement Project (SAIP).

In general, I we believe that the DEIR includes multiple assumptions that fail to mitigate properly the environmental, noise and safety issues that would result as a by-product of the SAIP. Following is a list of specific concerns:

TRAFFIC

Los Angeles, of course, has been known as a crowded and smog-infested city. The population has only grown, and the streets have gotten more crowded - especially on the 405 Freeway on the "South Bay Curve" where traffic typically flows best at 3am and very poorly at best all other times of the day. In addition, The City of Los Angeles has seen fit to add 32,000 residences to the marshlands around LAX area without adding any new roads or widening the freeways. Now they want to double the non-residential flow into the same area by having vacationers and businessmen flow into the trouble zone, again, without any new road or widening the freeways. The DEIR doesn't address this most basic concept other than to irresponsibly brush it under the rug. This alone should stop the proposed expansion of LAX, and its Master Plan.

4.2.6.3 talks of traffic going up certain percentages as if they are inconsequential, but as you probably already know, that if 100 cars on the freeway can go 65+ MPH, 120 cars will only be able to do maybe 25 MPH...20% increase in cars is unacceptable and LA city has already added more than its share as stated above.

Suggestion: LAWA should purchase land near the 605 and 105 (or further east by 20 miles) and build a large regional parking structure there, central for southern California, and build a magnetic rail that connects with the MTA Red, Blue, and Green Lines that will take passengers to Palmdale or somewhere where people won't be adversely affected in health and well-being. LAWA operates a suitable, but vastly underutilized airport in Palmdale. **Residence of Lancaster/Palmdale welcome and support Palmdale airport expansion, vs El Segundo.** For years, LAWA's argument for not appropriately developing that airport has been that airlines will not fly there. However, that assumption runs counter to the concept of supply and demand. Quite simply, if the demand is there, the airlines will supply it. Its like saying there is no demand for cars to cross the river, so the Golden Gate Bridge in San Francisco should not have been built.

The Antelope Valley is rapidly growing region. Some project that the ultimate build-out of Palmdale, Lancaster and surrounding communities will exceed one million people. If the high-speed rail system is established between Los Angeles and Antelope Valley, that projection might prove to be conservative. Southern California is growing northward and the high desert of the Antelope Valley region is perfect, ready, and waiting for the inevitable to come. As such, it makes no sense that LAWA remains unceasing in its efforts to develop and expand an over-utilized facility like LAX

SAIP-PC00018

when Palmdale represents nearly fallow ground in a vast untapped market. The members of ASNAC and hold strongly our belief that the best way to address the air travel needs of Southern California is to begin maximizing the potential of outlying facilities, such as Ontario and Palmdale Airports.

NOISE

Historically, El Segundo was among the earliest developments in the region. El Segundo means "The Second" ...refinery for Standard Oil in the very early 1900's. And, it had a town setup here before Mines Field expanded and evolved into present day LAX. The occurrence of World War II established considerable national priorities and local residents, of course, accepted the increased aviation activity next door (and the inconveniences that accompanied such activities) with complaint. But, with the arrival of the Boeing 707 and the current jet age the noise simply became too much. We gave them an inch, and they took a mile - and El Segundo has been forced to co-exist with an extraordinarily burdensome neighbor that does little to curb noise. Currently, the first 3 blocks of homes parallel to LAX have to contend with horribly loud noise that stops conversation on the phone or with people in the same room till the aircraft pass. Also the vibration will cause things to move and fall off the shelves. We constantly have been awakened up in the middle of the night to investigate what crashed to investigate what fell off the shelf to the ground. I personally got into the habit of every evening I push all items on my shelves in the den, living room, and kitchen to the far back or middle so they don't vibrate off due to Fed-Express aircraft taking off in the middle of the night.

One irony of this situation is that LAWA retains the ability to mitigate a good portion of the noise created from the airfield through the Residential Sound Insulation (RSI) Funds distributed by ... But this is assuming that people don't want their windows open for fresh air, or that being outdoor gardening isn't important to a good health and good community which the foundation of our ole town of El Segundo.

Now LAX has the audacity to say the Airbus A380 is "vital" to LAX and they must be here and must be on the south outboard runway, nearest to the residence of El Segundo. (Note: When real life studies come out about the A380, working noise versus stage 4 testing performance study, the runway on the inboard will turn out to be the better choice.) And they want to build an infrastructure that can allow the doubling of passenger handling...Hence: twice the load (A380), twice as often, equals four times worst (2x2=4) on an already unbearable situation. LAWA should not hold our valuable real-estate captive to their insatiable desire to expand.

Note: Boeing has not gone further with its plans to compete with the A380 due to they believe as most in the industry believe, the A380 will go by way of the Concorde. Instead of larger aircraft Boeing is focusing on its 787 (small aircraft) and its new series of midsize aircraft, because the public is not in favor of larger aircraft due to the preference of direct flights vs connecting flights. Nor do they wish to board a 500 to as much as 1000 passenger aircraft. Supply and demand requires that Boeing end production of larger aircraft like the 747. Boeing has put on hold all plans for a decade to compete with Airbus on the outdated larger aircraft market. Thereby it's not worth it to private industry to put money into A380 type runway projects, why is our Government (LA & FAA) putting money into Airbus, especially when they are the competition to American jobs at Boeing!

Suggestion: It is unnecessary to expand the runway for the A380, but if the Airbus needs to come here for cargo for LAWA "survival", then put it further away from residence not closer. Put the loudest aircraft on the inboard runways. Thereby build the inboard thicker and utilize the fact that it is already the longer runway designed for bigger cargo laden aircraft and have the smaller aircraft utilize the inboard. Also unless unavoidable have all takeoffs on the inboard runway and landing on the outboard runway. In a real world setting that should be at least 95% of the time compliant. And have an enforceable agreement with your neighbor to the south that will include fines if deviation does occasionally occur. The fiscal impact to LAX adhering would be minimal, and you get what you want.

HEALTH

There are ongoing concerns about cancer in the El Segundo community - with recent high profile cancer-related deaths fueling that concern. The concern is for the 25% of the year the wind brings airport Jet A exhaust fumes to our residence. 1.3.4.2, 4.4.7.1 Talks about studying the problem, but nothing more of value to residence around the airport.

SAIP-PC00018

SAFETY

The center taxiway has to be eliminated from the Master Plan because it takes up too much valuable space. Of the experts and pilots I have talked with, not one has understood how the center runway would legitimately prevent the kind of incursions that LAX has a history of. The Los Angeles Fire Department Crash Crew's main preference of having the center taxiway is it gives them more options to drive around if a crash occurs, and just short of that they don't see any reason for it either. Pilots and Crash 80's are the real life experts putting the theory to the test and find it comes up way short of any benefit to safety. The real issue is the over-crowded skies over and around LAX. They can't safely expand any more. This is a fact and the last crash at LAX proves it! (See Exhibit 1 Two aircraft given permission to use the same runway by the same tower, 34 killed) The center taxiway is a red herring! You need to increase RPZ (Runway Protection Zone AC 150/5300-13) not decrease RPZ if you have more air traffic. (refer to note *) Volume is the key to increasing the likelihood of another aircraft hitting another aircraft in a crowded airspace that LAX leads the world in. LAX is the busiest airport on the smallest acreage with the most civilian and general aviation in the world, and the EIR is trying to say if they build a nearly worthless taxiway, the skies will be safer. That just does not make sense. The EIR failed again, it wastes taxpayer money and leaves LAX significantly more unsafe.

* Note: Also, going back a few years, 5/11/69, people died when a B-26 lost an engine and its trajectory flew its deadly path to 335 Encinitas where it crashed. Most airlines today find it cheaper for maintaining 2 engines vs. 3 or 4, and if they do on takeoff then here they would come. Common ways to lose an engine, birds or mechanical, under stress of takeoff, and in one case they forgot to lock the engine in place and it just fell off the wing!

Suggestion: Keep aircraft further away from residence

Suggestion: Take the center taxiway out & move the Southern/Outboard runway/25L further north not south.

Suggestion: Expand aircraft volume and size somewhere else like the welcoming residence of Lancaster.

Currently cargo takes off on the outboard runway especially at night, when it is safer for them to takeoff and certainly land on the inboard runway due to its 1000' longer. (25R = 12,090'; 25L = 11,095')

Suggestion: So when it comes time to reconfiguring LAX we suggest if it has to accommodate A380, do so on the inboard.

The scuttlebutt around the crash crew is that Airbus is not as good an aircraft as Boeing, possibly due to too many countries building parts of the plane. (See Exhibit #2 Steering Geometry) Now they want to land a super larger problematic aircraft here...that is unsafe. (So why spend the valuable resources on a wasted project on a poorly designed plane)

Also, neither LAX Crash 80's nor any crash crew in the world can handle the 2nd story of the 747 (For Emergency Evacuation). Fortunately it is only a small portion of the aircraft, but there is no firefighting equipment presently made to properly handle the A380. This is a reason not to allow it into American airspace until that issue is overcome. Certainly not at LAX where it is so unwelcome by its neighbors. Unless anyone can explain why the A380 has to be on the south outboard runway, I say if you want it, waste your money on the inboard runway development.

On behalf of the Aviation Safety and Noise Abatement Committee, I appreciate the opportunity to provide commentary on the DEIR for the South Airfield Improvement Project.

Sincerely,


Richard Hurst
Member El Segundo Aviation Safety and Noise Abatement Committee

SAIP-PC00018

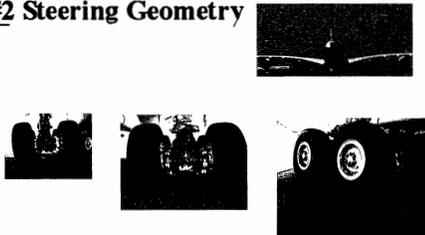
Exhibit #1 Two aircraft given permission to use the same runway by the same tower, 34 killed)



Thirty-four passengers died at the Los Angeles International Airport when an incoming US Air Boeing 737 collided with a smaller SkyWest Metroliner commuter plane. The US Air jet landed on the smaller craft, flattening it and dragging it in flames into the side of an abandoned fire station. The February 1, 1991 crash claimed all 12 people on the smaller plane and 22 of the 89 aboard the larger US Air jet.

Final NTSB Report
NTSB Identification: DCA91M0184 For details, refer to NTSB aircraft number 4678A
Scheduled 14 CFR 121 operation of USAIR Accident occurred FEB-01-91 at LOS ANGELES, CA Aircraft: BOEING 737-300, registration: N388US Injuries: 24 Fatal, 13 Serious, 17 Minor, 27 Uninjured.
SKW569, N683AV, HAD BEEN CLEARED TO RWY 24L, AT INTERSECTION 45, TO POSITION AND HOLD. THE LOCAL CONTROLLER, BECAUSE OF HER PREOCCUPATION WITH ANOTHER AIRPLANE, FORGOT SHE HAD PLACED SKW569 ON THE RUNWAY AND SUBSEQUENTLY CLEARED USA 1493, N388US, FOR LANDING. AFTER THE COLLISION, THE TWO AIRPLANES SLID OFF THE RUNWAY INTO AN UNOCCUPIED FIRE STATION. THE TOWER OPERATING PROCEDURES DID NOT REQUIRE FLIGHT PROGRESS STRIPS TO BE PROCESSED THROUGH THE LOCAL GROUND CONTROL POSITION. BECAUSE THIS STRIP WAS NOT PRESENT, THE LOCAL CONTROLLER MISIDENTIFIED AN AIRPLANE AND ISSUED A LANDING CLEARANCE. THE TECHNICAL APPRAISAL PROGRAM FOR AIR TRAFFIC CONTROLLERS IS NOT BEING FULLY UTILIZED BECAUSE OF A LACK OF UNDERSTANDING BY SUPERVISORS AND THE UNAVAILABILITY OF APPRAISAL HISTORIES.
Probable Cause
THE FAILURE OF THE LOS ANGELES AIR TRAFFIC FACILITY MANAGEMENT TO IMPLEMENT PROCEDURES THAT PROVIDED REDUNDANCY COMPARABLE TO THE REQUIREMENTS CONTAINED IN THE NATIONAL OPERATIONAL POSITION STANDARDS AND THE FAILURE OF THE FAA AIR TRAFFIC SERVICE TO PROVIDE ADEQUATE POLICY DIRECTION AND OVERSIGHT TO ITS AIR TRAFFIC CONTROL FACILITY MANAGERS. THESE FAILURES CREATED AN ENVIRONMENT IN THE LOS ANGELES AIR TRAFFIC CONTROL TOWER THAT ULTIMATELY LED TO THE FAILURE OF THE LOCAL CONTROLLER 2 (L2) TO MAINTAIN AN AWARENESS OF THE TRAFFIC SITUATION, CULMINATING IN THE INAPPROPRIATE CLEARANCES AND THE SUBSEQUENT COLLISION OF THE USAIR AND SKYWEST AIRCRAFT. CONTRIBUTING TO THE CAUSE OF THE ACCIDENT WAS THE FAILURE OF THE FAA TO PROVIDE EFFECTIVE QUALITY ASSURANCE OF THE ATC SYSTEM. (NTSB REPORT AAR-91-08)

Exhibit #2 Steering Geometry



SAIP-PC00018

MasterPlan LAX

P.O. Box 92216
Los Angeles, CA 900092216

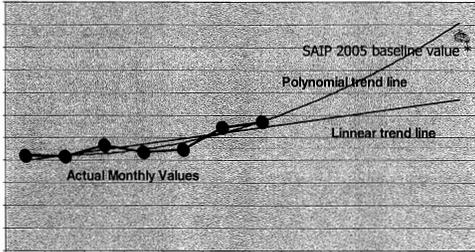
Public South Airfield
Comments on Improvement
Project Draft EIR

Name (First, Last): Denny Schneider Date 9-15-2005
 Do you represent an organization? self Name of Organization:
 Address: 7929 Breen Av
 City: Westchester State: CA Zipcode: 90045:
 Telephone (Optional): 310 641-4199 E-Mail (Optional):Denny@WeLiveFree.com
 Subsection or Topic Area (if Applicable):
 Number: MANY Title:

Comments: (To assist LAWA in the process of answering comments, please be specific on the topic of each statement.)

The attached graph shows that using the first 7 months of aircraft operations the baseline estimate was excessive.

This applies to all environmental estimates. The baseline assumption of aircraft was faulty (high) for the 2005 estimate by a significant amount. This would make all calculations of impacts for subsequent periods appear less significant.



*SAME CHART AS ROUNDTABLE
ADDED COMMENT SO THAT OTHER
THAN NOISE IS ADDRESSED.*

Office Use-Only

SAIP-PC00019



(Hand delivered)

September 15, 2005

Comments concerning South Airfield Improvement Program (SAIP) Draft Environmental Impact Report (DEIR) dated August 2005.

Los Angeles World Airports
Long Range Planning
Attn: Karen Hoo
7301 World Way West, Room 308
Los Angeles, CA 90045-5803

The LAX / Community Noise Roundtable discussed the SAIP last night and voted unanimously (LAWA representative abstained) to express our concern about the noise impact analysis presented in the subject DEIR.

The attached Powerpoint slides are submitted as comments/questions to be addressed before finalization of the DEIR.

Thank you for your consideration.

Sincerely,

Denny J. Schneider
Dennis J. Schneider

Please direct inquiries to:

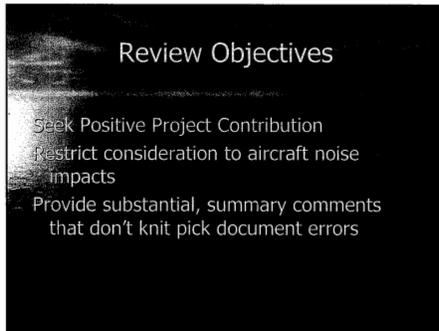
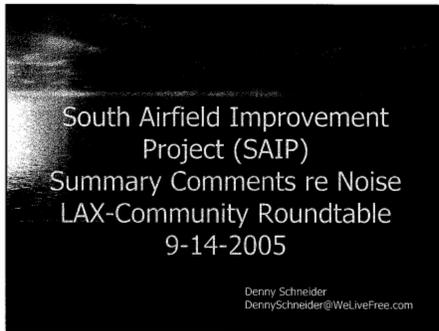
Denny Schneider
Noise Subcommittee Chair,
LAX / Community Noise Roundtable
7929 Breen Av.
Los Angeles, CA 90045
Phone: (310) 641-4199
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Please send your response to:

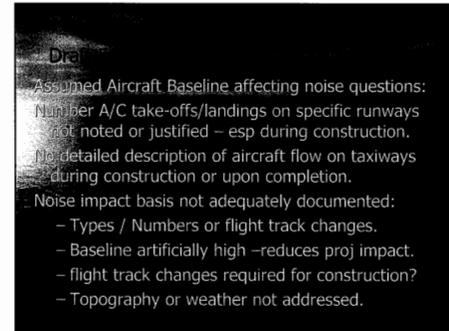
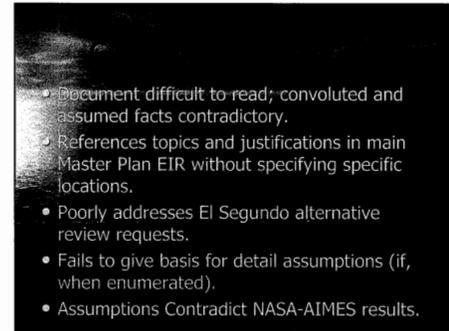
Robert Holden
Environmental Supervisor
Los Angeles World Airports
Noise Management Division
Phone: (310) 646-9410 ext. 1046
Fax: (310) 646-6939
E-mail: RHolden@LAWA.org

Attachment: Powerpoint Side Handout (4 pages -first informational only with no response expected.)

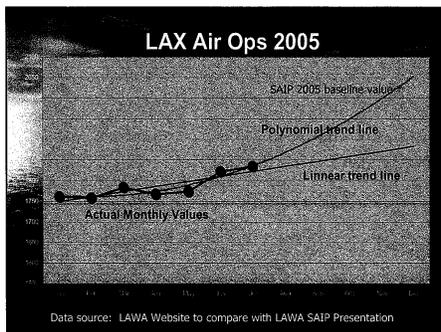
SAIP-PC00020



SAIP-PC00020



SAIP-PC00020



Disturbance

Awakenings and school learning impact estimates:
 - Insufficient Definition of noise required for awakenings or learning impairment
 - Not all schools and churches in impact area identified.
 - Added noise from start – stops of aircraft on taxiway?
 - Will noise impacts be measured and compared to predicted if monitors not in place? What procedural adjustments to aircraft operations will be made?

Disturbance

Single event noise or increases in dB basis?
 - Increased go-arounds due to construction
 - Mitigation schemes limited
 - During 26 month construction and especially 8 month closure assumes significant, unavoidable impact without any intermediate steps such as closing gates or requesting FAA temporary routes.
 - Request LAWA ask FAA for temporary flight track changes to improve compatible land use affected and to minimize noise; balance runway use.

Disturbance

- Although modification of the south runway complex may be justifiable, the case has been poorly made if noise abatement is a basis.
- Insufficient information on aircraft ground operations precludes any definitive comments.
- Insufficient information on aircraft flight path changes precludes our ability to provide project recommendations. BUT we know there will be substantial impacts – especially during construction. LAWA should ask the FAA for temporary flight track changes and define ways to balance the load between runway complexes.

SAIP-PC00020

SAIP-PC00020

Tracking Number:	
MasterPlanLAX Stakeholder Liaison Office	
Stakeholder Committee	
Additional Comments	
<small>Contact Information (Optional) Please print.</small>	
Name (Last, First or Org.):	Date:
Hamilton, Patricia	9/14/05
Address:	
8416 Winsford Avenue	
City:	State:
Los Angeles	California
Zip Code:	
90045-4406	
Document: SAIP DEIR	Chap.:
Subsection:	Page:
Comment(s):	
 <p>Art Consultant 8416 Winsford Avenue Los Angeles, California 90045 310-215-9825</p>	
<small>Attach additional sheets if necessary.</small>	
<small>Please submit comments by September 15, 2005 to:</small>	
Los Angeles World Airports Long Range Planning Attention: Karen Hoo 7301 World Way West, Room 308 Los Angeles, CA 90045-5803	

PROJECT-LEVEL TIERED DRAFT ENVIRONMENTAL REPORT

South Airfield Improvement Project Los Angeles International Airport (LAX)

We are all aware of the need here in Los Angeles for LAX to be upgraded, modernized and reconfigured for an even flow of the people and baggage -- to move more efficiently and swiftly through the terminals -- this is essential. We all want to be proud of our airport and have our guests to the city-- feel welcome and comfortable on arrival and departure -- we want our airport to reflect the Creative City that Los Angeles is with it's beautiful natural setting know world wide -- right here overlooking the Pacific Ocean and all the attractions and businesses that people from around the world come to see and take part in.

I realize that LAX has listened to the concerns of the communities in Los Angeles and gone back to the drawing board to try to accommodate and refine the original beginning plans that date back 10 years now. We all want the plans to move forward - however -- there are still elements that have not been addressed and we must resolve all these matters - not to just push through an agenda-- this has been very difficult on all concerned as we are all aware of these facts.

I was very impressed with all the research and work involved in the 437 page report for --This Project Level Draft Environmental Impact Report (Draft EIR) South Air Field Improvement for Los Angeles International Airport . I also noticed in the separate Report a of the LAX Master Plan Stakeholders Forum 2, that a touch of Art has been added with the attractive renderings and color especially on Page 55. However many elements remain unknown as to the Environmental effects to our already established communities. Does the City of Los Angeles remember that it has 87 neighboring Cities and unincorporated areas that the Airport impacts?

If this current plan is approved your looking at 5 to 6 years before the Project would be completed. That is far too long a time for the people of Los Angeles to have their lives impacted by all the dangerous pollutants filling the air we breath -- the Traffic congestion on all the streets especially the main artery of the 405 that is far too congested already. Then after all of that disruption to our lives just an extra runway on the airfield?

SAIP-PC00021

SAIP-PC00021

Continued - pg. 2

Under Item #1 Project Description # 2.1

In this report the first reason for this enlargement was to continue to satisfy Regional demands for global air traffic of passengers and cargo by adding new and optimizing existing facilities at LAX, along with distributing commercial service not essential to the LAX International Gateway role to other airports in the region.

Now your only referring to the Metropolitan Los Angeles? The County is growing and will continue to grow with essential business also branching out where the land is. The vision for Los Angeles should be on a larger scale for the future of the City and County.

At the same time infrastructure could be put in place so that with the High speed rail Line those Global air Transport passengers could be right here in the metropolitan Downtown Area in 20 minutes. People are accustomed to far greater waiting periods here at LAX. This should take place at the same time and we could then have three Gateways to Los Angeles as people are accustomed to all over the nation in any important area. Los Angeles city and county are certainly large enough to have three Gateways to look to with pride.

LAX does not have diversification as other cities have for Air Travel, we are behind the times especially now in the 21 Century. Just last weekend I was reading in our Los Angeles Times that as far as shipping is concerned:

WHAT HAS BEEN HEARD ON THE STREET: Shipping Lines are looking for diversification -- that is sending goods to a variety of seaports instead of concentrating business in southern California. Bratz a doll maker's Isaac Laurien is among them Laurien Chief Executive Of MA Entertainment Inc. the small Van Co. has been bringing less merchandise through Los Angeles preferring the less congested Ports of Oakland and Seattle. Now this can also be said for the traveling public and the day is soon approaching. After all when you think about it Aircraft carries people and cargo and can also go anywhere there is an airfield to land.

Construction - Reallocated Measure

Pg. 193
mm.A Q2
4.6.8

The MMRP and Section 4.6.8 of the LAX master Plan final EIR, the Master Plan consultants did not quantify potential - emissions reduction associated with all of the Mitigation measures that fall under MM-AQ2.

For the air Quality Analysis, it was assumed that these measures mitigation measures would be in place in 2005 --

Other feasible mitigation measures may be defined in the Final LAX M.P. MPAQ, which will be complete prior to implementation of the SAIP.

SAIP-PC00021

Continued - pg. 3

The airport is located within the South Coast Air Basin in California a 6,600 sq. - mile area encompassing all of Orange County and non - desert portions of Los Angeles, Riverside and San Bernardino Counties.

4.3.3.2.2

Final guidance of implementation of P.M. 2.5 ambient Air Quality Standards HAS NOT BEEN ISSUED ?

4.3.3.4.2

Carbon Monoxide was recorded in 1999 1 hr. concentration 0.5 per million (ppm)

CUMULATIVE IMPACTS

4.3.7

P.M. 10 concentrations are predicted to exceed the P.M.10 CAAQS and P.M. 2.5 concentrations are predicted to exceed the P.M. 2.5 CAAQS and NAAQS accordingly the project will have SIGNIFICANT IMPACTS with respect to both P.M. 10 and P.M. 2.5 concentrations.

MITIGATION MEASURES

4.3.8

Construction -- related construction equipment during a second - Stage Smog Alert in the immediate vicinity of LAX. All these elements cannot be expected to remain in the airport boundaries. LAWA is committed to mitigate temporary airport related construction emissions -----TO THE EXTENT POSSIBLE ?

THE SPECIFIC MEANS for implementing the Mitigation Measure are in THE PROCESS OF BEING FORMULATED AND WILL BE APPROVED PRIOR TO PROJECT IMPLEMENTATION ?

SAIP-PC00021

Continued - pg. 3

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SAIP-PC00021

Continued - pg. 4 -- 4.3.1

DRAFT ENVIRONMENTAL IMPACT REPORT SOUTH AIRPORT IMPROVEMENT PROJECTS AT LOS ANGELES INTERNATIONAL AIRPORT

In this report LAWA is writing of a wide range of alternatives. Each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well and as operations-related activities.

On pg.13 this document states " Where additional mitigation is regard to address impacts specific to the SAIP new mitigation measures are evaluated and proposed for adoption as appropriate".

pg. 161 thru 164 --4.3.1.1

POLLUTANTS OF INTEREST

Additional analysis completed since NOP was published has identified biotic communities (I noticed that they listed biotic communities before HUMAN HEALTH RISKS) and Human Health Risks as additional environmental resources requiring additional review. Stating in the report that each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well as operations - related activities.

1. Sulfur Dioxide(SO-2)
2. Carbon Monoxide(Co)
3. Particulate matter w/ aerodynamic diameter less than or equal to 10 micrometers (PM 10)
4. Particulate matter w/ an aerodynamic diameter less than or equal to 2.5 micrometers (PM 2.5)
5. Nitrogen Dioxide no. 2 and ozone
6. Lead was not tested

The report gives a very weak excuse for not evaluating Lead Bp -- Because of construction and ongoing airport operations. Lead is not considered in airport Air Quality analysis. AND Lead would have a negligible impact. Well how could they come up with this assumption if it hasn't even been tested.?

Physical Effects include:

1. Temporary Breathing Impairment
2. Respiratory Illness
3. Aggravation of existing Cardiovascular Disease
4. Cancer and others too numerous to list at this time.

SAIP-PC00021

Continued pg. 5
1.6

SUMMARY OF POTENTIAL ENVIRONMENT IMPACTS

- 1. Hydrology / Water Risks
- 2. Off - Airport - Surface Transportation would EXCEED the SIGNIFICANT thresholds the SIGNIFICANT Thresholds for all ADULT residents and for CHILD THROUGH ADULTHOOD.
- 3. AIR QUALITY would EXCEED the SIGNIFICANT thresholds for all ADULT residents and for YOUNG CHILD THROUGH ADULTHOOD.

HUMAN HEALTH RISKS

Projects related incremental Cancer risk, compared with 2003 Baseline would be exposed to noise levels that would awaken there AT LEAST 10 nights.

LAND USE

Affecting the county of Los Angeles, the city of Los Angeles and El Segued.

SCHOOLS

A healthy environment is essential to a child's growth in all ways. The human Health Risks and Noise that can not be avoided -----IS UNACCEPTABLE

LAWA should concentrate on changing the terminals streamlining the process for passengers in the ticketing, baggage, fly Aways and parking. Build airfields in Palmdale and Ontario where the LAND is with high speed rail connected to L.A.X. Have three Gateways to Los Angeles after all the land in Palmdale and Ontario is owned by LAWLA. Then all three airports could be major airfields for the whole world to see and experience. This could show the whole world the size and scope of our Vast, Wonderful and Creative City of Los Angeles. Then we could have a real Regional Solution to Airport Congestion that all the people and cities involved with the Future of AIRCRAFT are expecting. This is what is needed for the city to be ready for 2015.

SAIP-PC00021

Continued pg. 6

In the communities surrounding LAX we see the effects of Black Lead Soot all over our home window sills, all the cement paved driveways and patio areas, businesses and recreation areas these are serious and SIGNIFICANT health Risks to all the communities surrounding LAX. With the gasses released from all the departures and arrivals of aircraft throughout the day, how can the people who live and contribute to the progress of the nation remain healthy?

LAWA AIRPORT AIR QUALITY ANALYSES CONSIDERS THIS NEGLIGIBLE?

These are HARMFUL CHEMICAL SUBSTANCES that will only increase with the increased aircraft in the next years of construction SIGNIFICANT irreversible harm to the communities and the resources of LIFE --- that is ESSENTIAL to our LIFE.

NOISE

MM-LU 3

CONDUCT STUDY OF THE RELATIONSHIP BETWEEN AIRCRAFT NOISE AND THE ABILITY OF CHILDREN TO LEARN

This study is definitely flawed as it was determined that two thresholds of significance should be based on the 1992 Federal Interagency Committee on Noise (FICON) This in turn places another cement runway in front of the most important investment that any city has and that is the children's learning abilities, the possible future leaders of the nation second.

Children in their fragile growing years need stability and protection from a harsh environment in order to develop to the fullest of their ability. They should not be bombarded in their years by constant interruptions of their lessons from the deafening noise of aircraft overhead and dangerous chemical fumes.

SAIP-PC00021

Continued pg. 7
2.3.2

FAA RECORD OF DECISION

How could the FAA conclude that ALT D. has the least adverse environmental effects and is the most responsive to public comment? With the health risks of surrounding projections if 1,400 people will be diagnosed with Cancer - caused deaths and all the adverse results of chemical exposures listed. What about the increased air traffic on the north side that will compound the problem of all the TOXIC elements in the air that we breath to keep alive?

pg. 53

According to the Environmental Report the north side at this time will be DRASTICALLY EFFECTED.

So are we supposed to forget about sleep, noise and the polluted air that we breath for at the very least one year and all the negative Health EFFECTS associated with this exposure? -- THIS IS NOT ACCEPTABLE --

HEALTH RISK ASSESSMENT

1.3.4
1.3.4.1

IMPACTS

Consistent with the results of the LAX master Plan Final EIR, Risks to HUMAN HEALTH from SAP are attributed to emissions of 1,3 BUTADIENE, ACROLEIN, BENZENE, AND and FROMALDEHYDE from aircraft as well as DIESEL PARTICULATES from trucks and construction equipment. -- Why leave out the jet fuel? --

With implementation of the SAP, in 2005, the airport would result in SIGNIFICANT incremental Cancer Risks CHRONIC and Acute Health Hazards to all receptor types compared to 2003 Baseline conditions.

SAP HUMAN HEALTH IMPACTS ARE GREATER THAN PREVIOUSLY REPORTED FOR THE LAX MASTER PLAN

SAIP-PC00021

Continued - pg. 8
2.6

PROJECT ALTERNATIVES

The plans for building of the new runway on the south side of the airport does not conform with the impact that should be considered to the communities surrounding the airport and beyond within the City and County of Los Angeles.

As stated in 2.6 accordingly, this document does not reevaluate the project alternatives however reading all the 473 pages I find too many unknowns - assumptions and a lack of completion of this important project

LAX WAS BUILT PRIOR TO THE ESTABLISHMENT OF THE FAA CURRENT DESIGN STANDARDS FOR AIRPORT SERVING LARGE COMMERCIAL JETS. FOR THIS REASON, NOT ALL, THE SAFETY AREAS AND SAFETY ZONES SURROUNDINGS THE FOUR RUNWAYS UNIVERSALLY MEET TODAY'S RECOMMENDED DIMENSIONS FOR NEW AIRPORT DEVELOPMENT.

pg. 57 --2.7.2

FEDERAL ACTIONS
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION (FAA)

A Determination, that Airport Development is reasonably necessary for use in Air Commerce or in the Interest of National Defense

Reasonably necessary -- Actually pertaining to National Defense, Security and Safety to build all new runways in Palmdale and Ontario would be to our benefit as in an emergency we would need more Diversity in Airfields. Pertaining to Air Commerce -- All of southern California Commerce will be severely IMPAIRED if we do not build more air runways in other areas. the diversity is not here as yet nothing is CONNECTED. The Infrastructure should already in place with these connections from LAX, Palmdale and Ontario. Arizona and Nevada already have -- NEW STATE OF THE ART AIRPORTS -- JUST WAITING FOR OUR COMMERCE. THESE STATES ARE ALREADY ANTICIPATING THIS DECISION FROM COMMERCE WORLDWIDE.

IT'S ONLY JUST A MATTER OF TIME

Respectfull submitted,
Patricia Hamilton

SAIP-PC00021

Continued - pg. 8
2.6

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U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION (FAA)

A Determination, that Airport Development is reasonably necessary for use in Air Commerce or in the Interest of National Defense

Reasonably necessary -- Actually pertaining to National Defense, Security and Safety to build all new runways in Palmdale and Ontario would be to our benefit as in an emergency we would need more Diversity in Airfields. Pertaining to Air Commerce -- All of southern California Commerce will be severely IMPAIRED if we do not build more air runways in other areas. The diversity is not here as yet nothing is CONNECTED. The Infrastructure should already in place with these connections from LAX, Palmdale and Ontario. Arizona and Nevada already have -- NEW STATE OF THE ART AIRPORTS -- JUST WAITING FOR OUR COMMERCE. THESE STATES ARE ALREADY ANTICIPATING THIS DECISION FROM COMMERCE WORLDWIDE.

IT'S ONLY JUST A MATTER OF TIME

Respectfully submitted,
Patricia Hamilton

Mr. David B. Kessler, AICP and Los Angeles World Airports
U.S. Department of Transportation Long Range Planning
Federal Aviation Administration Attention: Karen Hoo
P.O. Box 92007 7301 World Way West, Room 308
Los Angeles, CA 90009-2007 Los Angeles, CA 90045-5803

Subject: REVIEW OF SAIP DRAFT EIR
Review Committee: El Segundo Aviation Safety and Noise-Abatement Committee 14 September 2005

The El Segundo Aviation Safety and Noise-Abatement Committee (ES-ASNAC) appreciates the opportunity to comment on the above-mentioned document. The following comments and reactions meant as guidance for the City and Federal Lead Agencies to be incorporated in the Final Impact Statement/Environmental Impact Report.

Pursuant to Public Resources Code S21092.5, please provide the ES-ASNAC with written responses to all comments contained herein before the certification of the Final Environmental Impact Report. ES-ASNAC would be happy to work with the Lead Agency to address the issues raised and any other questions that may arise. Please contact Professor-Emeritus Charles DeDeurwaerder at 310-640-0891 if you have any questions regarding these comments.

Sincerely

Liz Garnholz, Chairperson, ES-ASNAC

Comments of the El Segundo Aviation Safety and Noise-Abatement Committee Re: The Project Level Tiered Draft Environmental Impact Report for South Airfield Improvement Project, Los Angeles International Airport (LAX).
• Key Points are bulleted!

Seventeen findings of Negative and Significant but Unavoidable Impacts (with mostly unsatisfying mitigations proposed), coupled with a controversial proposal to add a central taxiway between South Airfield Runways, does not justify moving an outer-runway closer to off-airport residences, thus amplifying airport negative impacts. If runway 25L is in poor repair, fix it in place as a qualitative not quantitative improvement. Then, develop Palmdale's 17,750-acres to accommodate new heavier aircraft with significantly less impact than at LAX. The economic foundation of the Hahn Master Plan "D" was based on three fallacious assumptions: 1. "traffic routes will remain constant", 2. "passenger-and-fleet mixes will remain constant", 3. "technology of terrestrial transportation will remain constant". If LAWA, the LAX staff, and Airlines pilots operated totally in accord with adopted operations policies and recommendations, airfield incursions and off-airport neighbor-complaints would be minimized and the neighbors' quality-of-life could continue to improve.

- 17 Significant Unavoidable Impacts invalidate the Project proposal!
- Fix/modify/improve/adjust the airport qualitatively, not quantitatively. "More is not better!"
- Operate entirely within adopted operations policies and recommendations!

Expanding (shoulder-width) the southernmost runway (25L), and moving it 55' closer to El Segundo would threaten the quality-of-life of most El Segundo residents. The Master Plan says all four runways are currently suited to handle aircraft up to 900,000 lbs. (A loaded A380 weighs 1.24-million pounds.) Redoing 25L (to 19'-depth concrete and broad shoulders) would make it the only runway specifically suited to handling the loaded A380. Figure F4.2-28 for "D" in the LAX Master Plan Final EIR (using Year-2000 fleet-mix) shows fewer homes exposed to aircraft noise of 65 CNEL or greater in 2015. If modeling included the A380's in addition to the current mix, it should have shown a significant increase despite the gradual quieting of individual engines. Graphics used for Figures S4.2-2, 4, -13, -16, and -17 indicate Alternative D data was essentially the same as for Alternatives C and N/ANP (i.e. no move of the runway). Why would noise generated in "C" or "N/ANP" indicate greater El Segundo residence impact than for "D"? In Figure S4.2-17, the 1.5dB increase-contour should have influenced subsequent noise-contours. 2015 Operations-numbers and runway locations were probably the same for all Alternatives. FOUL!! The Master Plan suggests that if we move the runway closer to El Segundo, and add more heavy planes, we'll get less noise than if

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we do nothing. Of major impact-determination significance, fleet-mix used in calculations for Year 2015 is based on projections using current fleet-mix figures (Average Annual Day Operations and Fleet Mix Alternative D [Master Plan EIS/R Appendix C Table S7 et al]), and lists 44 planes, but no A340-600's, A350's or A380's. After SAIP construction, the not-counted giant-planes would skew impact results heavily, i.e. anticipated 11-12 A380 daily flights [22-24 TOAL's] (each up to 8 times as much single-event noise as an average B737) all using runway 25L makes the neighbors' plight intolerable. TakeOff noise is of greatest concern to El Segundo, while Approach-noise maximally affects the communities east of the airport. The B747 fleet lists TO dBA's from 80 to 100.5 dBA's, while the A300 fleet TO dBA's range in the upper 70's until reaching the A350 and A380. LAX A380 single-event nighttime awakenings and classroom disruptions would be horrendous.

Note: Singapore [2/day], Qantas [3/day], Air France, Virgin, Korean, Malaysian, Lufthansa, and Federal Express A380 Airbus (35% larger with 49% more floor-space than the biggest 413-seat 747) plan to use LAX. UPS, currently using Ontario Airport, has also ordered A380's. Does that mean that LAWA must soon upgrade Ontario facilities to accommodate the A380? Airbus developers project a call for 1,902 jumbo aircraft in the next 20 years. The \$235-million A380 (240" vs 232"; 555-800 passengers, range 9,200-miles, cost \$5.3-billion to develop). Its wingspan is 262-feet (vs B747's 212') and taxi-weight will reach 1.3-million pounds (vs B747's 875,000). It's dubbed the "world's first Flying-Hotel, a cruise-ship in the sky", and may feature a duty-free shop, sit-down restaurant, some enclosed staterooms (each with bed and shower), a bar (and perhaps a casino), and a gym in addition to its projected 555 passenger-seats and 55 crew-seats. Tail-height is seven-stories. Eighteen door-emergency slides have friction material to slow the slides. Cathay-Pacific's 3-HongKong flights per week, currently use remote terminals or one of the two Bradley gates for an A340-600 (15' longer than the biggest 747) but require new taxiway, gate, and jetway construction which can accommodate them. Virgin Atlantic, South African, and Iberia Airlines also use A340-600's.

- Only modify/improve a runway if all runways are to be brought to the same standard!
- Re-emphasize the guidelines for flying heaviest/loudest aircraft using inboard runways!
- Avoid expanding negative impacts by avoiding relocating facilities closer to off-campus residences!
- Recalculate/redraw 2015 noise contour projections using latest fleet-mix/TOAL projections/expectations!
- Accept that Airbus A380 accommodations may belong at Palmdale Regional Airport - NOT LAX!

The Plan justifies runway relocation by claiming "additional separation between 25L and 25R will enhance safety", but it then proposes a center taxiway between the runways (to minimize potential incursions). There is no indication of previous incursions (without central taxiing) being of a "Class-A" near-miss description. A center-taxiway adds twenty-five new taxiway-centerline intersections (potential collision-points) to the current 48 runway/taxiway intersections layout. Safety is not enhanced by adding potential collision points. The vast majority of incursions of the past decade have been caused by communications-breakdowns or pilot-or-controller error. Adding new intersections will only increase potential for errors and breakdowns. (None of the earlier Plan-Alternatives proposed center-taxiways. Were they to be developed "unsafe"? The DEIR claims moving the runway is necessary "to meet the FAA required centerline spacing of the new taxiway ... providing a runway-to-taxiway centerline-spacing of 400' to both 25L and 25R." With the 262' wingspan of the A380, we'll have a new "unsafe condition" if a plane is on taxiway when a big one comes in. Given the introduction of the A380, it would be safer to leave the runways spaced 745' apart as at present, eliminate the proposed center taxiway, and reinforce the stopping points on the crossing-taxiways by installing above-ground laser stop-lines. Pilots who won't listen, or controllers who make bad calls, will not be corrected by adding additional confusion and more stop-points to the layout. In fact, in the name of safety, some crossing-taxiways should be eliminated (even if it adds a mile or a minute to the taxiing plane route).

Note: In instructions to the NASA Team which studied and supported the proposal for center-taxiway, LAWA said "most common runway incursions occurred when an aircraft arriving on Runway 25L exits at one of the high-speed exits, and then fails to stop before overshooting the hold-short bars for Runway 25R. The intent of the center taxiway concept is to force aircraft to turn onto a parallel center taxiway, thus eliminating the "straight shot" to Runway 25R that exists on the current high-speed exits." Instructions failed to note that high-speed might have made it difficult to stop in time. But now, the length of the High-Speed Exits, runway-to-taxiway would be half the distance to former stop-bars. Perhaps, inserting a new taxiway (another turn or intersection point) closer to the landing-runway would increase rather than decrease potential accidents. Reviewing LAWA's several "taxiway studies", the study process regularly goes from safety considerations to discussions of minimizing delays. \$/skt!

- Proposed center-taxiway adds collision-points and will not address/correct a problem of incursions!
- Reinforce/install Stop-Bars (paved-lines) and R/W guard lights with above-ground lasers to reduce incursions.
- No additional separation of 25L from 25R is necessary or desirable.
- Direct "heavies" to use inboard runways whenever possible.

A relocated/rebuilt runway would accommodate heavier planes not now accepted at LAX, and - favored by southside-located cargo operations - add more noise (bigger, more-frequent planes in closer proximity to homes) and more-offensive-noise (cargo nighttime operations). LAWA says "LAX will be able to handle the A380 in late 2006, and then more A380 operations than any other facility in the world." (DB 5/18/04, LAT 5/19/02 & 1/17/05, Pop-Mech 3/01) Will LAWA seek waivers (which could further extend the airport into a "catastrophe waiting to happen" class?) Currently the A380 is too tall, heavy, or with too large a wingspan to use two of LAX's runways, almost all boarding gates, and many taxiways. Short-term plans would

adapt six existing gates at Tom Bradley, Terminal 2, and remote west-end terminals, expand boarding-lounges; and widen taxiway and runway shoulders. FAA has already granted conditional approval of those plans. Eight airlines have announced plans to fly in and out of LAX. The 380's certified capacity is 1,000 passengers. Fire-Department Crash-Units claim "Airbus products have too much variation in hardware, which can hamper safe rescue operations". Current equipment cannot safely handle the 2nd level bubble of the 747's, and would most certainly threaten the full upper floor of the A380's. (Airport firefighters will have to double the length of their ladders (and hoses) to reach doors on the second deck.) FAA regulations call for a 30% widening of most taxiways and runways to accommodate. A380 engines can transport the weight of 37-MTA buses (560-tons). The freighter version will have three decks and carry 152 tons of cargo as far as 6,445 miles. SAIP does not show plans (or expenses) to re-equip LAX crash units (or surrounding community units), nor to develop new methods to service the huge plane with fuel (with two pumps, the 81,890-gallon tanks would take 45-minutes to fill) and food or unload trash and thousands of gallons of waste. If two A380s parked side by side at existing LAX gates, their wings would touch. Apron space is a problem, as it's handling twice the luggage, meals, and trash as the 747. The 380 cannot share taxiways with other planes. In 2002, Airbus said LAX's longest runway would be adequate in length. Terminals must be modified to allow jetways to connect to both decks. (Typically it takes 11-years, from design to construction, to create airport facilities.) The U.S. General Accounting Office estimates it will cost \$1.2-billion for LAX to accommodate the A380. Airbus says it shouldn't cost LAX more than perhaps \$177-million. The (190-passenger) Boeing 757 requires 80,000 pounds of thrust. The A380, despite requiring four engines at 75,000 pounds of thrust each, will burn 20% less fuel than the 747-400 (lowering operating costs by 17% - or 30% for freight operators) based on in-flight (not taxi, takeoff, or landing) conditions (and require a minimum 3,000-mile flight to be validated). Taxi, takeoff, and landing are the times of maximum impact. The four big engines will probably rival the now-defunct Concorde for noise and emissions. In its era, Concorde was five-times more noisy, and more polluting, than any other plane at major airports. Seventy-six percent of the noise generated on 25L is from the heaviest jets in the fleet.

- Drop the race to be biggest! Redevelop quality not quantity!
- Shift plans for LAX to accommodate A380 to allow a new draw to Palmdale Regional!
- At least withhold A380 access until LAX can safely accommodate (re crash-units) using inboard runways!
- Move major noise-maker operations to inboard runways!

Funding for detailed planning should not proceed before conceptual plans and impact-mitigations are approved. LAWA ordered detailed designs without waiting for approvals or mitigation analyses for current projects. Revamping Bradley Terminal @ \$225-million was funded by bonds repaid by airport revenues, and was another example of incremental expansion. The current South Airfield Project will modify facilities to accommodate (bigger and louder) A380's. Major land-acquisitions like Manchester Shrimp are not in the baselines, but don't belong in the accommodations-process.

- Avoid contract commitments before achieving plan approvals and adopting clear effective impact mitigations.

In the SAIP DEIR Chapter 1, Section 1.4, we read "Safety is the primary consideration." Obviously, then, it behooves LAWA to avoid any possibility of expanded capacity -- for "double the people and cargo" yields "double the risk and danger." Yet, Chapter 2, Section 2.1, states "it is crucial that LAX is capable of accommodating the A380." Handling the A380 in a small airport goes against "safety" considerations. "Double the passengers ..." Why not include the big bus in plans for Ontario instead? Or even better, to minimize risk and impact, accommodate A380 at Palmdale (where the airfield is 17,000 acres rather than 3,500). Primary constraint on the airport's practical capacity is the "limited curbside capacity of the CTA at peak hour." Then, encouraging access by GreenLine, or increasing outlying "flyaway" terminals, reduces constraints and yields increased-capacity. Similarly, "after SAIP, the practical capacity will be the same" based on constraints "created by reducing the number of aircraft gates." Referring to the Tom Bradley (TBIT) to make its point, DEIR states "with new security systems installed" TBIT will be able to accommodate 15 fewer passengers at its modified gates." Yet, gates will be modified to accommodate the double-decked larger-capacity A380. Doubtful? Section 2.6 states "Airfield configurations were designed at a precise level of detail to satisfy FAA requirements related to airport layout plans." Well, how did a plan to move the runway south get by while there are "structures in the Runway Protection Zone" at the west end? (Altered FAA reg's just for this move? ..or out-of-town's don't count?) The DEIR Section 2.7.2 states "No impacts on wetlands would result from the SAIP." Yet, Section 5.4.3.1 states 1,853 s.f. of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp will be permanently converted "for construction staging, airfield ops and maintenance activities or airfield improvements" ... In addition, activities have potential to indirectly affect 1.26 acres of other degraded wetland habitat ... with an additional 23 acres of ephemerally wetted areas threatened, and another 108 acres identified as "critical habitat" within the Airfield Operations Area. The report concludes "Further consideration of critical habitat for the Riverside fairy shrimp at LAX is not required" because FWS now excludes the areas from "critical habitat" designation (based on "elements for shrimp to complete its life cycle are not met at LAX"). In April '05 (LAT 4/13/05), LAWA promised once again to move 468 tons of soil containing the shrimp by this month (September). Where's the action?

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- Avoid moves that lead to expanded airport capacity! Double handling = Double danger, double risk!
- A380 belongs at Palmdale! Finish and activate the Palmdale Regional Airport Master Plan!
- Easing airport access could lead to airport expansion. Incorporate some access-means distribution goals!
- Respect FAA Design-Standards Guidelines (AC150/5300-13). Avoid runway moves into obstacle-free zones!
- Follow-through on promises! Move the shrimp before any other activity in "critical habitats".

DEIR Section 4.1, Hydrology/Water Quality, identifies construction-disturbance of 296 acres, generating nearly 816,000 cubic yards of material for export. 26.5 acres of new impervious cover will speed the runoff from the disturbance-area. A 10% increase in impervious cover seems significant from a layman's perspective. Proper drainage can certainly avoid flooding problems, but LAWA should reintroduce increased runoff back into the local groundwater table to avoid future subsidence. Threshold of Significance focused on flooding should be revised to recognize subsidence possibilities as well. Regarding major export of material (rubble and soil and organic waste) from the site, consideration should be given to construction of a major perimeter-berm between southside buildings to serve as effective sound-barrier (i.e. 100' across at the foot, reaching up as much as 40', to 10' across at the top, with sloped sides @ 1:1 planted heavily with sound-attenuating groundcover and trees) like Miami-Dade County Airport or around El Segundo's Chevron Property.

- Respect City/State Runoff guidelines! Increasing impervious cover endangers soil/water/geologic stability!
- Policy suggestion: Relocate any project-spills onsite - avoid exporting site materials!
- Design/build effective perimeter sound-barriers!

It has been three years since LAWA contracted to develop an Airport Master Plan for Palmdale Regional Airport (7/16/02). Since then Newhall Ranch (21,600-homes), Los Lomos (5,800-homes), Ritter Ranch (7,200-homes), Anaverde (5,200-homes), and Tejon Ranch's Centennial (23,000-homes) have proposed to join the 1,179,228 residents of northern Los Angeles County. Investing now (before facing neighbor-complaints) in developing Palmdale Airport, instead of making-over at LAX, would only make good sense. If LAX becomes the sole option for airlines using A380's, the increased traffic from the north will totally gridlock the Impact-zone. More is no longer better! SAIF should be adding pressure to complete GreenLine service to LAX directly (in fact, through LAX to pick up Loyola University and Playa Vista) terminating at I-90 and Culver Blvd. DEIR Section 4.2.3.3.4 indicates assumptions of growth and increased traffic. A steady annual 2 percent increase is a flawed assumption in recognition of the variations connected with project completions (DEIR Table 4.2-7). Money earmarked toward SAIP should be redirected to a high-speed rail connection between LAX, Palmdale, and Ontario Airports. Shanghai, Munich, Pittsburgh, Baltimore, and Atlanta are all readying city-to-airport high-speed rail connections. Taipei-Kao-Hsiung, London-Glasgow, Tampa-Orlando, and Zurich-Geneva rail-connections are in development. Tokyo/Osaka/Fukuoka, Boston/NewYork, and Paris/Brussels/London are operational. Newark connects to Penn Station. Vegas to Primm (where a new airport is being developed), and on to Anaheim is probable. LAX/PMD by Maglev could be a 30-minute ride. A true intermodal scheme would connect LAWA's three commercial airports by Maglev, while connecting both LAX and Ontario through Union Station by light-rail (with extensions of GreenLine and seamless connections to downtown and Long Beach).

- Develop efficient air service for north L.A. County growing population (soon-to-be 2-million)! PMD.
- Redirect LAX expenditure-budget to assist in LAWA airport rail connections!

Mitigations must be fully spelled out (including assumptions for funding). Too often, a proposed mitigation is stated merely as a proposal to "study the problem" or "monitor the situation" (i.e. Traffic operations Sect. 4.2.8. Proposed mitigations involving other government bodies are often not likely to be funded (i.e. I-405 offramp at Lennox, local traffic-signal and intersection improvements, + I-90 R-O-W changes). GreenLine extensions are given little consideration despite being a South Airfield Improvement condition due to current station location. LAWA proposes in "D" certain development subject to "daily vehicle trip-caps" (2-1178). The same developments were proposed in "A, B, and C" with higher traffic levels projected. "D" development has less impact than "No Project". That's wrong because elsewhere developments-in-question are identified as baseline for additional development in "D" and affect off-airport projects. SAIP DEIR Table 3-1.

- Develop meaningful mitigations that mitigate impacts not just study further!
- Respect changing off-airport conditions!

Impact Analyses are inadequate in the following categories: Noise, Land-Use, Surface Transportation, Environmental Justice, Growth-Induction, Air Quality, Hydrology/Water Quality, Biotic Resources, Endangered and Threatened Species, Wetlands, Coastal Resources, Energy Supply, Solid Waste, Seismic Concerns, Hazardous Materials, and Public Utilities.

- Broaden Impact-Analysis team for wide-ranging perspectives!

From DEIR Table 4.3-1 & 4.3-2 we find LAX 2005 Fleet Mix and LTO Cycles (estimated at 372,556). Much has been said in the Report about accommodating the A380. Shouldn't a hypothetical Fleet Mix and LTO Cycles estimate be made for

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2015 in order to estimate the impact of adding the new giant heavy. Table 4.3-6 indicates an emissions inventory for On-Airport sources that includes aircraft only in stationary mode. Isn't it true that emissions discharge from aircraft would be significantly higher on takeoff, acceleration, or landing modes? When will we face up to the task of a real inventory to include the periods of aircraft movement? The drift of aircraft discharge above ground may be descending to measurement stations only miles from the actual source (the zone around the airport). The projections of emissions distribution are difficult to read (given only grid readings). Could a more-clear graphic like the noise-contours be developed for each of the types of emission reported? Numbering/identifying the gridded air quality receptors would allow a much more thorough analysis of the off airport air quality. Where is the count high, where low? When? Air quality analysis regarding aircraft operations is woefully inadequate. The Report indicates only (4.3.7) that the project will have significant impacts with respect to both PM10 and PM2.5 particle concentrations. We're told "Mitigation measures are being formulated and will be approved prior to project implementation." Yeah! Trust me! Despite recommending the export of 816,000 cu yds of rubble, "no additional project-specific mitigation measures are recommended". There's an assumption that a GSE conversion program is underway. However, a further statement indicates that such a program will be done by 2015. In other words "we're working on improving the engines to reduce emissions". Trust us! This is considered totally inadequate analysis, and an even worse score on mitigations.

- Develop a meaningful and thorough estimate of AQ conditions in 2015 (including operations of new heavies).
- Show the public graphically where the air is more heavily polluted, and how much of the time.
- Report the current means of mitigating airport generated air pollution.
- Identify the 2015 anticipated reductions of air degradation, and a timetable for reaching maximum mitigation.

DEIR indicates that there is an increased carcinogenic risk associated with LAX and its SAIP. As many as 19-in-a-million more cancers than normally expected (in adults) in the Los Angeles Air Basin may be traced back to LAX (6-in-a-million for children). [4.4.7.1] A potential for Non-Cancer Chronic Health Hazards also occurs in areas around LAX. Risk indices were developed for the hazard potential related to LAX-lengthy-exposure. A hazard index of 1 or greater indicates potential for adverse health effects. Regarding Chronic Non-Cancer Hazards, adults read a #1 hazard index, while children read a #5. [4.4.7.2] The hazards relate to ingestion of acrolein, heavily present in jet engine exhaust. Acute but not chronic hazards ranged from #1 to 19 depending on how much acrolein which one might be exposed. # 1 is a hazard index threshold of significance for acute effects. [4.4.7.3] LAWA promises to mitigate emissions to the extent possible. The Toxic Air Contaminants Inventory is based on the assumption that air quality mitigation measures would be in place. [4.4.8] However, LAWA started a study of air quality strictly related to LAX which was interrupted by events of 9/11/01. LAWA promises to reinstate the study to evaluate toxic air contaminant emissions from jet engine exhaust (and other sources). Risks in the LAX area were not estimated directly, because no permanent monitoring station for TACs was located at or near LAX when basin-wide AQMD studies were going on. (Note: El Segundo attempted to establish such a station location during the MATES-II study period, but after locations had been secured, the City Council unexpectedly withdrew participation without explanation.)

- LAX is a source of increased risks of cancer, non-cancer chronic health problems, and acute health problems.
- Follow through on LAWA's promise to study the area air quality and toxic contaminants related to jet engines.
- With AQMD assistance, establish a fully-equipped permanent air-quality monitoring station on LAX property.

Lingering questions. Several of the graphic representations of the Project area show a long extension of work area on the west end beyond the end of the proposed relocated runway. Is this a grading area to allow for future runway extension? Will it be graded level enough to serve as a quick-stop deep-gravel crash zone like steep-hill truck runaway zones? Or is it a way of avoiding need for a future EIR when time may come to extend all runways?

- What is the function of the included west-end runway-extension area in SAIP documents?

In conclusion, seventeen findings of Negative and Significant but Unavoidable Impacts (with mostly unsatisfying mitigations proposed), coupled with a largely unjustified proposal to add a central taxiway, does not justify moving runway 25L 55.5' closer to off-airport residences. If runway 25L is in poor repair, fix it in place, then, widen and strengthen one of the other runways to accommodate the new "Heavies". Better yet, develop Palmdale's 17,750-acres to accommodate them with less impact than at LAX. LAWA willingly relocates a federally protected species to a new site, while simultaneously subjecting fellow humans to increased risks of cancer, noise and disruption; increased traffic stress; and a diminished quality of life. It appears that if LAWA, the LAX staff, and Airlines pilots operated totally in accord with stated operations policies*, airfield incursions and off-airport neighbor-complaints would be minimized and neighbors' quality-of-life could continue to improve. *Minimal thrust 'til 2-miles out to sea. Take-off low and quiet. Heavies use inbound runways exclusively. Minimize operations to maximize safety.

Thank you again for the opportunity to comment on the South Airfield Improvement Project DEIR.
El Segundo Aviation-Safety and Noise-Abatement Committee

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Tracking Number:	
MasterPlanLAX Stakeholder Liaison Office	
Stakeholder Committee Additional Comments	
Contact Information (Optional) Please print.	
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 Patricia Hamilton Art Consultant 8416 Winsford Avenue Los Angeles, California 90045 310-215-9825	
Karen, Please accept my corrected spelling check comments from The Stakeholder Committee. Thanks, Patricia	
	
Attach additional sheets if necessary. ✓	
Please submit comments by September 15, 2005 to: Los Angeles World Airports Long Range Planning Attention: Karen Hoo 7301 World Way West, Room 308 Los Angeles, CA 90045-0803	

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PROJECT-LEVEL TIERED DRAFT ENVIRONMENTAL REPORT

South Airfield Improvement Project Los Angeles International Airport (LAX)

We are all aware of the need here in Los Angeles for LAX to be upgraded, modernized and reconfigured for an even flow of the people and baggage -- to move more efficiently and swiftly through the terminals -- this is essential. We all want to be proud of our airport and have our guests to the city-- feel welcome and comfortable on arrival and departure -- we want our airport to reflect the Creative City that Los Angeles is with it's beautiful natural setting know world wide -- right here overlooking the Pacific Ocean and all the attractions and businesses that people from around the world come to see and take part in.

I realize that LAX has listened to the concerns of the communities in Los Angeles and gone back to the drawing board to try to accommodate and refine the original beginning plans that date back 10 years now. We all want the plans to move forward - however - there are still elements that have not been addressed and we must resolve all these matters - not to just push through an agenda-- this has been very difficult on all concerned as we are all aware of these facts.

I was very impressed with all the research and work involved in the 437 page report for --This Project Level Draft Environmental Impact Report (Draft EIR) South Air Field Improvement for Los Angeles International Airport . I also noticed in the separate Report a of the LAX Master Plan Stakeholders Forum 2, that a touch of Art has been added with the attractive renderings and color especially on Page 55. However many elements remain unknown as to the Environmental effects to our already established communities. Does the City of Los Angeles remember that it has 87 neighboring Cities and unincorporated areas that the Airport impacts?

If this current plan is approved your looking at 5 to 6 years before the Project would be completed. That is far too long a time for the people of Los Angeles to have their lives impacted by all the dangerous pollutants filling the air we breath -- the Traffic congestion on all the streets especially the main artery of the 405 that is far too congested already. Then after all of that disruption to our lives just an extra runway on the airfield?

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Continued - pg. 2

Under Item #1 Project Description # 2.1

In this report the first reason for this enlargement was to continue to satisfy Regional demands for global air traffic of passengers and cargo by adding new and optimizing existing facilities at LAX, along with distributing commercial service not essential to the LAX International Gateway role to other airports in the region.

Now your only referring to the Metropolitan Los Angeles? The County is growing and will continue to grow with essential business also branching out where the land is. The vision for Los Angeles should be on a larger scale for the future of the City and County.

At the same time infrastructure could be put in place so that with the High speed rail Line those Global air Transport passengers could be right here in the metropolitan Downtown Area in 20 minutes. People are accustomed to far greater waiting periods here at LAX. This should take place at the same time and we could then have three Gateways to Los Angeles as people are accustomed to all over the nation in any important area. Los Angeles city and county are certainly large enough to have three Gateways to look to with pride.

LAX does not have diversification as other cities have for Air Travel, we are behind the times especially now in the 21 Century. Just last weekend I was reading in our Los Angeles Times that as far as shipping is concerned:

WHAT HAS BEEN HEARD ON THE STREET: Shipping Lines are looking for diversification -- that is sending goods to a variety of seaports instead of concentrating business in southern California. Bratz a doll maker's Isaacs Laurien is among them Laurien Chief Executive Of MA Entertainment Inc. the small Van Co. has been bringing less merchandise through Los Angeles preferring the less congested Ports of Oakland and Seattle. Now this can also be said for the traveling public and the day is soon approaching. After all when you think about it Aircraft carries people and cargo and can also go anywhere there is an airfield to land.

Construction - Related Measure

Pg. 193
mm.A Q2
4.6.8

The MMRP and Section 4.6.8 of the LAX master Plan final EIR, the Master Plan consultants did not quantify potential -emissions reduction associated with all of the Mitigation measures that fall under MM-AQ2.

For the air Quality Analysis, it was assumed that these measures mitigation measures would be in place in 2005 --
Other feasible mitigation measures may be defined in the Final LAX M.P. MPAQ, which will be complete prior to implementation of the SAP.

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Continued - pg. 3

The airport is located within the South Coast Air Basin in California a 6,600 sq. - mile area encompassing all of Orange County and non - desert portions of Los Angeles, Riverside and San Bernardino Counties.

4.3.3.2.2

Vernal guidance of implementation of P.M. 2.5 ambient Air Quality Standards HAS NOT BEEN ISSUED ?

4.3.3.4.2

Carbon Monoxide was recorded in 1999 1 hr. concentration 0.5 per million (ppm)

CUMULATIVE IMPACTS

4.3.7

P.M. 10 concentrations are predicted to exceed the P.M.10 CAAQS and P.M. 2.5 concentrations are predicted to exceed EXCEED the P.M. 2.5 CAAQS and NAAQS accordingly the project will have SIGNIFICANT IMPACTS with respect to both P.M. 10 and P.M. 2.5 concentrations.

MITIGATION MEASURES

4.3.8

Construction -- related construction equipment during a second - Stage Smog Alert in the immediate vicinity of LAX. All these elements cannot be expected to remain in the airport boundaries. LAWA is committed to mitigate temporary airport related construction emissions -----TO THE EXTENT POSSIBLE ?

THE SPECIFIC MEANS for implementing the Mitigation Measure are in THE PROCESS OF BEING FORMULATED AND WILL BE APPROVED PRIOR TO PROJECT IMPLEMENTATION ?

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Continued - pg. 4 -- 4.3.1

DRAFT ENVIRONMENTAL IMPACT REPORT SOUTH AIRPORT IMPROVEMENT PROJECTS AT LOS ANGELES INTERNATIONAL AIRPORT

In this report LAWA is writing of a wide range of alternatives. Each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well and as operations-related activities.

On pg.13 this document states " Where additional mitigation is regard to address impacts specific to the SAIP new mitigation measures are evaluated and proposed for adoption as appropriate".

pg. 161 thru 164 --4.3.1.1

POLLUTANTS OF INTEREST

Additional analysis completed since NOP was published has identified biotic communities (I noticed that they listed biotic communities before HUMAN HEALTH RISKS) and Human Health Risks as additional environmental resources requiring additional review. Stating in the report that each of these six categories of environmental resources is potentially subject to impacts due to construction related activities as well as operations - related activities.

1. Sulfur Dioxide(SO-2)
2. Carbon Monoxide(Co)
3. Particulate matter w/ aerodynamic diameter less than or equal to 10 micrometers (PM 10)
4. Particulate matter w/ an aerodynamic diameter less than or equal to 2.5 micrometers (PM 25)
5. Nitrogen Dioxide no. 2 and ozone
6. Lead was not tested

The report gives a very weak excuse for not evaluating Lead Bp -- Because of construction and ongoing airport operations. Lead is not considered in airport Air Quality analysis. AND Lead would have a negligible impact. Well how could they come up with this assumption if it hasn't even been tested.?

Physical Effects include:

1. Temporary Breathing Impairment
2. Respiratory Illness
3. Aggravation of existing Cardiovascular Disease
4. Cancer and others too numerous to list at this time.

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Continued pg. 5
1.6

SUMMARY OF POTENTIAL ENVIRONMENT IMPACTS

1. Hydrology / Water Risks
2. Off - Airport - Surface Transportation would EXCEED the SIGNIFICANT thresholds the SIGNIFICANT Thresholds for all ADULT residents and for CHILD THROUGH ADULTHOOD.
3. AIR QUALITY would EXCEED the SIGNIFICANT thresholds for all ADULT residents and for YOUNG CHILD THROUGH ADULTHOOD.

HUMAN HEALTH RISKS

Projects related incremental Cancer Risk, compared with 2003 Baseline would be exposed to noise levels that would awaken - awaken the surrounding communities at LEAST 10 nights?.

LAND USE

Effecting the county of Los Angeles, the city of Los Angeles and El Segundo.

SCHOOLS

A healthy environment is essential to a child's growth in all ways. The Human Health Risks and Noise that can not be avoided ----IS UNACCEPTABLE

LAWA should concentrate on changing the terminals streamlining the process for passengers in the ticketing, baggage, fly Always and parking. Build airfields in Palmdale and Ontario where the LAND is with high speed rail connected to L.A.X. -- Have three Gateways to Los Angeles -- after all the land in Palmdale and Ontario is owned by LAWA. Then all three airports could be major airfields for the whole world to see and experience. This could show the whole world the size and scope of our Vast, Wonderful and Creative City of Los Angeles. Then we could have a real Regional Solution to Airport Congestion that all the people and cities involved with the Future of AIRCRAFT are expecting. This is what is needed for the city to be ready for 2015 .

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Continued pg. 6

In the communities surrounding LAX we see the effects of Black Lead Soot all over our home window sills, all the cement paved driveways and patio areas, businesses and recreation areas these are serious and SIGNIFICANT health Risks to all the communities surrounding LAX. With the gasses released from all the departures and arrivals of aircraft throughout the day, how can the people who live and contribute to the progress of the nation remain healthy?

LAWA AIRPORT AIR QUALITY ANALYSES CONSIDERS THIS NEGLIGIBLE?

These are HARMFUL CHEMICAL SUBSTANCES that will only increase with the increased aircraft in the next years of construction SIGNIFICANT irreversible harm to the communities and the resources of LIFE --- that is ESSENTIAL to our LIFE.

NOISE

MM-LU 3

CONDUCT STUDY OF THE RELATIONSHIP BETWEEN AIRCRAFT NOISE
AND THE ABILITY OF CHILDREN TO LEARN

This study is definitely flawed as it was determined that two thresholds of significance should be based on the 1992 Federal Interagency Committee on Noise (FICON)
This in turn places another cement runway in front of the most important investment that any city has and that is the children's learning abilities, the possible future leaders of the nation second.

Children in their fragile growing years need stability and protection from a harsh environment in order to develop to the fullest of their ability. They should not be bombarded in their years by constant interruptions of their lessons from the deafening noise of aircraft overhead and dangerous chemical fumes.

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Continued pg. 7

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Continued - pg. 8
2.6

PROJECT ALTERNATIVES

The plans for building of the new runway on the south side of the airport does not conform with the impact that should be considered to the communities surrounding the airport and beyond within the City and County of Los Angeles.

As stated in 2.6 accordingly, this document does not reevaluate the project alternatives however reading all the 473 pages I find too many unknowns - assumptions and a lack of completion of this important project

LAX WAS BUILT PRIOR TO THE ESTABLISHMENT OF THE FAA CURRENT DESIGN STANDARDS FOR AIRPORT SERVING LARGE COMMERCIAL JETS. FOR

THIS REASON, NOT ALL, THE SAFETY AREAS AND SAFETY ZONES SURROUNDINGS THE FOUR RUNWAYS UNIVERSALLY MEET TODAY'S RECOMMENDED DIMENSIONS FOR NEW AIRPORT DEVELOPMENT.

pg. 57 --2.7.2

FEDERAL ACTIONS
O.S. DEPARTMENT OF TRANSPORTATION FEDERAL
AVIATION ADMINISTRATION (FAA)

A Determination, that Airport Development is reasonably necessary for use in Air Commerce or in the Interest of National Defense

Reasonably necessary -- Actually pertaining to National Defense, Security and Safety to build all new runways in Palmdale and Ontario would be to our benefit as in an emergency we would need more Diversity in Airfields. Pertaining to Air Commerce -- All of southern California Commerce will be severely IMPAIRED if we do not build more air runways in other areas. the diversity is not here as yet nothing is CONNECTED. The infrastructure should already in place with these connections from LAX, Palmdale and Ontario. Arizona and Nevada already have -- NEW STATE OF THE ART AIRPORTS -- JUST WAITING FOR OUR COMMERCE. THESE STATES ARE ALREADY ANTICIPATING THIS DECISION FROM COMMERCE WORLDWIDE.

IT'S ONLY JUST A MATTER OF TIME

Respectfully submitted,
Patricia Hamilton

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