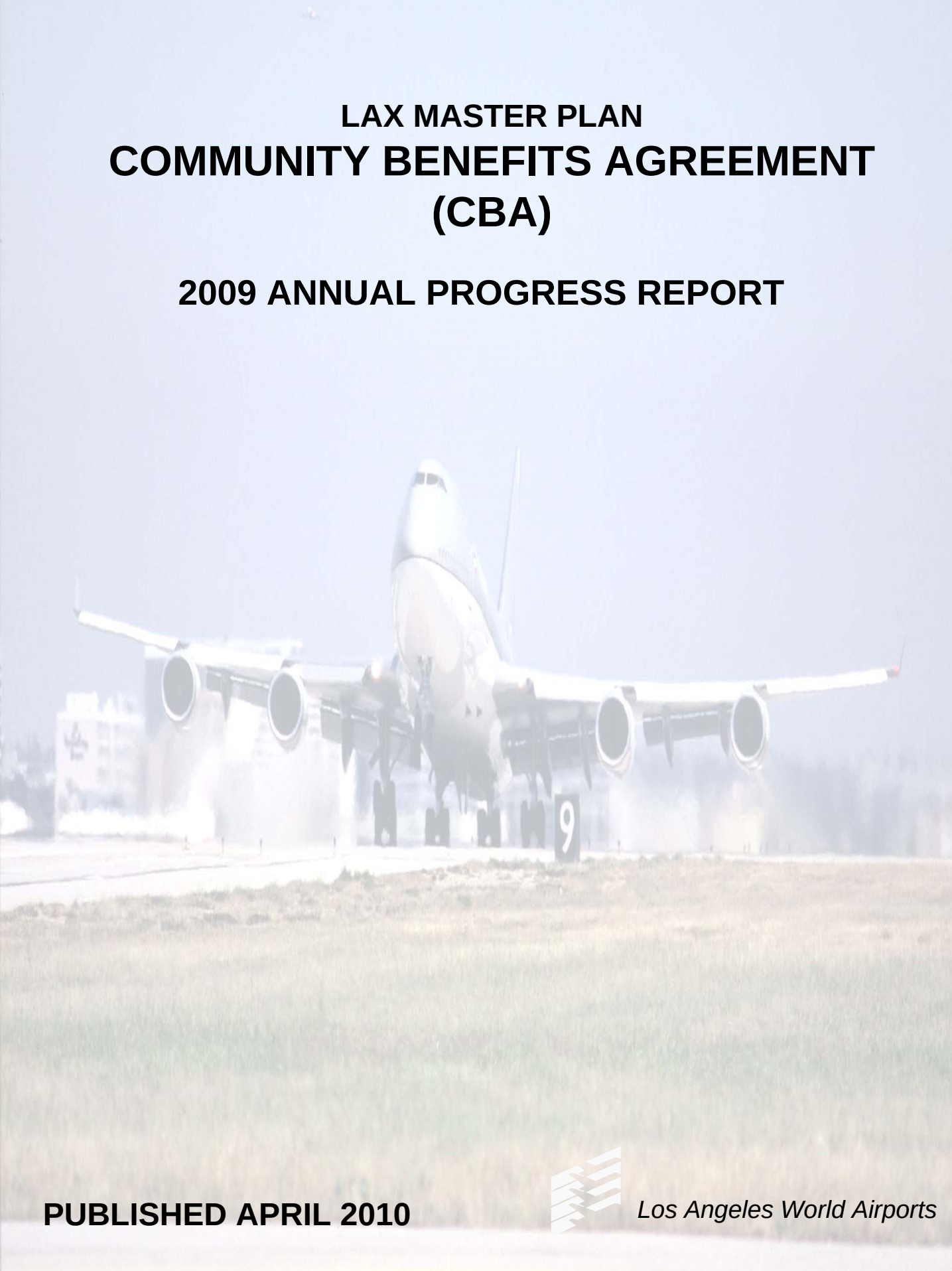
LAX MASTER PLAN

COMMUNITY BENEFITS AGREEMENT (CBA)

2009 ANNUAL PROGRESS REPORT



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Los Angeles World Airports

LAX MASTER PLAN

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2009 ANNUAL PROGRESS REPORT

Prepared by

Los Angeles World Airports

LAX Master Plan Program
CBA Annual Progress Report
December 2009

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1.0 Executive Summary

On December 6, 2004, the Los Angeles World Airports' Board of Airport Commissioners (BOAC) unanimously approved an agreement with the LAX Coalition for Economic, Environmental and Educational Justice (Coalition) that provides environmental mitigation programs and jobs-related benefits to communities that would be impacted by the implementation of the Los Angeles International Airport (LAX) Master Plan.

The Community Benefits Agreement includes measures to mitigate noise, pollutant emissions and traffic impacts of the Master Plan, as well as benefits such as job training and hiring programs for eligible residents of the Project Impact Area and the City of Los Angeles. The agreement precludes LAWA from making expenditures or taking actions prohibited by the FAA or any other regulatory authority. The Cooperation Agreement also prohibits the use of Los Angeles City's General Fund or any other City-controlled non-airport source of funds to meet any of LAWA's obligations under the agreement.

In accordance with Section XVI "Miscellaneous" of the Agreement, LAWA is required to prepare annual reports on the implementation of the Community Benefits Agreement and the progress of the LAX Master Plan Program. LAWA is to provide the annual reports to the Coalition Representatives and make them available for at least one month on the LAWA website. This document is the fifth annual report on the progress of the Agreement. This document has been provided to the Coalition Representative and is available at LAWA website www.laxmasterplan.org.

2.0 Introduction/Background

The Community Benefits Agreement is comprised of several documents as follows:

1. **Cooperation Agreement.** The Cooperation Agreement sets out the legal framework of the Agreement, including conditions, commitments, obligations, enforcement, etc.

2. **Community Benefits Agreement (CBA).** The CBA, an attachment to the Cooperation Agreement, details the various proposals of mitigation and benefits. The various proposals include:

   Noise Mitigation

   - Increased Funding for Airport Noise Mitigation Program
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3. **Settlement Agreement with Inglewood Unified School District.** This Agreement includes the conditions, commitments, obligations, enforcement, etc., of both LAWA and the Inglewood Unified School District in the provision of the following:

   LAWA Funding of Certain District Mitigation Measures: LAWA will fund certain mitigation measures for the Inglewood Unified School District in an amount not to exceed $118,500,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

   Security-Related Items: LAWA will assist the Inglewood Unified School District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups, and the local communities in the event of an airport-related emergency.

   Community Programs: LAWA will work collaboratively with the Inglewood Unified School District to support a variety of community programs, such as job training and academic programs.

4. **Settlement Agreement with Lennox School District.** Similarly, this Agreement includes the conditions, commitments, obligations, enforcement, etc., of both LAWA and the Lennox School District in the provision of the following:

   LAWA Funding of Certain District Mitigation Measures: LAWA will fund certain mitigation measures for the Lennox School District not to exceed $111,000,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

Security-Related Items: LAWA will assist the Lennox School District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups and the local communities in the event of an airport-related emergency.

Community Programs: LAWA will work collaboratively with the Lennox School District to support a variety of community programs, such as job training and academic programs.

The execution of the specified elements of the Agreements is tied to final City Council and FAA approval of the LAX Master Plan Program. As described in each Agreement, LAWA's obligations are conditioned upon FAA approval of these expenditures and use of airport revenues for these specific purposes. Under no circumstance will any of LAWA's obligations under these Agreements require any expenditure from the City's General Fund or any other City-controlled source of funds.

3.0 Community Benefits Agreement Progress Update

Section III. Residential Noise Mitigation

III.A Funding of Aircraft Noise Mitigation Program (ANMP)

The Agreement states:

"Beginning in fiscal year 2004-2005, LAWA shall fund its Aircraft Noise Mitigation Program (ANMP) at least at the following levels:

- $4.275 million per year for the Inglewood component; and
- $4.275 million per year for the County of Los Angeles component.

These funding levels shall be met by LAWA. LAWA shall use additional revenue, including Airport Improvement Program funds, as appropriate. LAWA expenditure of funds under this Section III.A is contingent on the City of Inglewood and the County of Los Angeles complying with all requirements established in BOAC Resolution Nos. 21481 and 21360, and with FAA regulations."

Status → Completed:
No funds were requested by any of the three participating jurisdictions in 2009. In May of 2009, LAWA approved Inglewood's funding request for $9.21 million dollars that was originally submitted in 2008.

Therefore, the allocation of funds in 2009 is as follows:

Calendar Year 2009	
County of Los Angeles (component)	*$ 0.00*
Inglewood (component)	*$ 9.21 million*
Total	*$ 9.21 million*

III.B Acceleration of Noise-Mitigation Programs for City

The Agreement states:

"Within eight months of the effective date of this Agreement, LAWA will provide a written schedule and work program to the Coalition Representative that is designed to achieve completion of the ANMP soundproofing program for the City by the end of 2008, and will take all reasonable steps to timely implement that schedule and work program."

Status → Completed:
While progress on this program is driven by the voluntary participation of impacted residential homeowners in the communities of Playa del Rey, Westchester, and South Los Angeles, LAWA staff has notified all property owners of their eligibility. LAWA has to-date spent approximately $132 million on the implementation of this program.

III.C Acceleration of Noise-Mitigation of Places of Worship

The Agreement states:

"LAWA shall accelerate the program of soundproofing Places of Worship as part of the ANMP in effect as of the effective date of this Agreement. Within eight months of the effective date of this Agreement, LAWA shall conduct a needs assessment for this program, in consultation with the Coalition Representative. LAWA shall provide annual reports on the progress of the program."

Status → In Progress:
Coordination with the Coalition on this provision will be on-going. This program will not commence until the residential mitigation programs are completed.

III.D End of Block Soundproofing

The Agreement states:

"Within one year of the completion of the current ANMP for participating jurisdictions, LAWA shall commence an end-of-block soundproofing program, under which, if any residence on a particular city-block falls within the applicable noise contour for that block, then each residence on that block will be eligible for noise mitigation as described in this Section III.D. Offers of soundproofing shall be made to the owner of each residence, whether or not the owner of that residence chose to participate in previous soundproofing programs. Soundproofing under this program shall reduce interior noise at participating residences to an interior CNEL of 45 decibels or less, within habitable rooms."

Status → On-Going:
The estimated completion date for the City of Los Angeles' program is 2012. There are approximately 1,200 dwelling units added under the block rounding program that utilizes PFC funding approved by the FAA. Program eligibility notification letters to owners of these properties have been sent out. To date, construction has been completed, or is ongoing on 147 units; an additional 119 units are awaiting construction contract award.

III.E Suspension of Avigation Easement

The Agreement states:

"1. Present Avigation Easement Requirements. All homeowners receiving LAWA provided or funded noise insulation measures within the 65 dBA CNEL noise contour presently must execute express, full avigation easements (as set out in Exhibit A). In return for LAWA's providing these noise insulation benefits, each homeowner presently must sign a full, express avigation easement (as set out in Exhibit A), expressly waiving his or her ability to sue LAWA with respect to the impacts (listed in the avigation easements) that are created by aircraft operations at LAX on the affected residences.

2. Proposed Modified Easement Requirements. In order to promote the cooperation between LAWA and the Coalition that is envisioned by this Agreement, and as long as this Agreement remains in effect, LAWA agrees to suspend its requirement that

express, full avigation easements (as set out in Exhibit A) be executed by homeowners receiving LAWA provided or funded noise insulation benefits for particular residences located within the 65 dBA CNEL noise contour in the City of Los Angeles, City of Inglewood, and Los Angeles County communities of Lennox and West Athens, and only under the following circumstances:

a. Caltrans approves LAWA' compromise position as described in this Agreement during the effective term of this Agreement. This approval is necessary because Caltrans currently requires avigation easements as part of LAWA's ongoing noise variance within its permit from Caltrans to operate LAX;

b. In lieu of requiring full, express avigation easements (as set out in Exhibit A), the homeowners will execute the Noise Easement attached as Exhibit B. The homeowners will provide, among other things, a written acknowledgment, accompanying the homeowner's authorization to proceed with the installation that the homeowner is aware of the proposed level of noise reduction that the installation is intended to provide. After the installation, the homeowner will execute an acknowledgement that the improvements have been installed and have attenuated the noise.

LAWA promises to make all reasonable efforts to obtain Caltrans' expedited approval of suspension of the requirement for full, express avigation easements (as set out in Exhibit A) and use of the Noise Easement (as set out in Exhibit B) in its place."

Status → Completed:
The dedication of avigation or any other easements in return for funding of, or participation in, the residential soundproofing program has been eliminated pursuant to the terms of a separate, independent agreement, the LAX Master Plan Stipulated Settlement Agreement, except under very limited circumstances as required by California Airport Noise Standards. Under these limited criteria, a modified noise easement similar to the one proposed by the CBA is being used.

III.F Compatibility with Local Building Codes

The Agreement states:

"LAWA shall not require property owners participating in the ANMP to satisfy regulations or standards related to property conditions where these regulations or standards are more stringent than those actually enforced by the local government jurisdiction possessing code enforcement authority over the property in question."

Status → No action at this time:
No action is required on this provision since LAWA does not impose regulations or standards related to property conditions that are more stringent than those enforced by the local government jurisdiction as these requirements are not part of LAWA's noise mitigation programs. It is the permitting agencies', such as the City of Los Angeles Building and Safety Department, role to enforce building codes, not LAWA.

III.G Limitations on Nighttime Departures

The Agreement states in part:

"LAWA and the Coalition agree that restrictions on departures between the hours of midnight and 6:30 a.m. over the communities to the east of LAX would be desirable, when LAX is operating under normal weather conditions (when LAX is either in Over-Ocean Operations or remains in Westerly Operations and excluding times when LAX operates in Easterly Operations). This is known as the "LAX Proposed Restriction".

1. Part 161 Study. By April of 2005, LAWA shall have completed a Contract Award Process for a study on the feasibility of implementing the LAX Proposed Restriction (the "Part 161 Study"). Within 90 days of the contract award, the contract will have commenced. LAWA shall require that the Part 161 Study meet the relevant requirements of 14 C.F.R. Part 161, and that the entity performing the Study provide annual reports to LAWA on study progress and findings"...

"2. Record of Eastbound Departures. LAWA shall maintain a record of all nighttime eastbound departures during Over-Ocean Operations and Westerly Operations. This record shall be made available to the public on the LAWA website and shall be updated monthly.

3. Community Response Program. LAWA shall operate a community response program through which the public may report nighttime flights in the areas east of LAX. LAWA shall maintain a record of all individual reports, and shall prepare annual reports documenting individual reports, including records of airline, flight, date, and time of each reported flight, where possible. All records of reports, excluding the reporting individual's name and address, shall be maintained as public records and posted on the LAWA website."

Status → In Progress:
In June 2005, LAWA initiated a Part 161 Study at LAX intended to restrict departures between the hours of midnight and 6:30 a.m. over the communities to the east of LAX, when LAX is operating under normal weather conditions (when LAX is either in over-ocean operations or remains in westerly operations). While much progress has been made towards completion of the LAX Part 161 Study, the project was on-hold until LAWA finalized the baseline and projected fleet mix forecasts for the LAX Specific Plan Amendment Study. The revised design day fleet mix forecast was approved and LAWA's consulting teams converted the forecast into an "average day" forecast, and are performing the required noise modeling. LAWA has established a website for the study at www.laxpart161.com, which is accessible via LAWA's website, www.lawa.org.

Regarding provisions III.G. 2 and 3, LAWA continues to maintain a record of all nighttime eastbound departures during Over-Ocean Operations and Westerly Operations on LAWA's website and operates a community response program through which the public may report nighttime flights in the areas east of LAX.

Section IV. Job Training

The Agreement states in part:

"Job Training Program. Beginning in fiscal year 2005-2006, LAWA shall provide $3 million per year for five years, not to exceed $15 million over five years, to fund job training for Airport Jobs and Aviation-Related Jobs, and for Pre-apprenticeship Programs. Any funds unspent in a particular year shall be rolled over to the subsequent year. At the conclusion of the five-year period, any unused funds shall revert to the job training funds described in Section XV…"

Status → In Progress:

Job Training Program

Although the FAA has not approved a job training program (JTP) for LAWA and therefore no LAWA funds may be used for job training, LAWA leverages its relationships with agencies funded to provide job training.

By leveraging our relationships with over 15 JTP partners, LAWA, through its Business and Job Resources Division (BJRD) initiated its JTP in January 2007. LAWA was successfully able to partner with agencies funded through other means to provide job training opportunities to residents in the Project Impact Area. Currently, LAWA is working with agencies that provide an array of training, including computer skills, customer service, time management, leadership skills, and other classes.

Collaboratively, we were able to work with Loyola Marymount University (LMU) to train 150 shuttle bus drivers for Servisair. They were given courses in anger management, customer service, and cultural diversity. These drivers were also given training which allowed them to become ADA certified as well.

Based on surveys to employers, both internally and externally, new training courses will include Conversational Spanish for Concessions Division staff and Management training in the areas of communication, coaching, and interviewing with Duty Free Shops (DFS). The conversational Spanish course officially started on September 8, with a class of about 20 LAWA students.

As a result of our partnership with the Los Angeles Community College District, we have been able to train over 50 high school and college interns. For the second consecutive year, through Los Angeles City College (LACC), students have taken courses in life and work skills, customer service, time management, and work ethics. The students received college credit for their efforts.

We have been able to refer over 65 individuals to pre-apprenticeship construction training. As a result, over two dozen have received their Pre-Apprenticeship Construction Training Certificate. Through the LAWA partnerships, many local residents have completed training in customer service, retail sales, auto mechanics and other disciplines.

As of June 30, 2009
*JTP Referrals: 414 Completed Training 297**
**This number includes new employees as well as incumbent workers.*

Section V. First Source Hiring Program

The Agreement states in part:

"First Source Hiring Program for Airport Jobs. The First Source Hiring Program shall provide early access to targeted applicants for available Airport Jobs, and employers will receive prompt, cost-free referrals of qualified and trained applicants. Except where City's Worker Retention Policy requires retention of particular workers, LAWA shall require participation in the First Source Hiring Program with regard to all Airport Jobs by any:

- New Airport Contractor, Airport Lessee, and/or Airport Licensee resulting from the approved LAX Master Plan Program;
- Airport Contractor that enters into or receives a new, amended, or renewed Airport Contract, or receives a voluntary extension of an existing Airport Contract;
- Airport Lessee that enters into or receives a new, amended, or renewed lease of any property owned by LAWA, or receives a voluntary extension of an existing lease; and
- Airport Licensee that agrees, receives, or is subject to a new, amended, extended, or revised licensing or permitting agreement or set of requirements.

As of July 1, 2005, LAWA shall ensure that the First Source Hiring Program, attached as Exhibit C, is a material term of all Airport Contracts, lease agreements, and licensing or permitting agreements or sets of requirements that are new, extended, amended, renewed, or revised. Under these Airport Contracts, agreements, or requirements, employer participation in the First Source Hiring Program shall commence on the effective date of the Airport Contract agreement, or requirement in question, or on July 1, 2005, whichever is later…."

Status → In Progress:

First Source Hiring Program

The First Source Hiring Program (FSHP) provides early access to targeted applicants for available Airport Jobs, and employers will receive prompt, cost-free referrals of qualified and trained applicants. The FSHP was adopted by the BOAC in April 2005 and its provisions are included in all LAWA contracts and agreements, where applicable. On eligible construction projects such as TBIT Renovation, LAWA has been working with Coalition Representatives to implement the LAX Project Labor Agreement in a manner that, to the extent possible, enhances employment opportunities for underemployed individuals residing in the Project Impact Area and the City, especially minorities and women.

The FAA approved implementation of the FSHP in October 2006, with implementation starting in December 2006. As approved by the FAA, FSHP candidates are screened for LAWA job classifications and those not hired by LAWA are referred to other LAX employers. LAWA's FSHP is conducted through its Business and Job Resources Division (BJRD). Initially, one company, Hudson News, took advantage of the

candidates screened for LAWA jobs, but it has now grown to over 60 companies. The FSHP is designed to provide residents from the communities immediately surrounding the airport and those most impacted by airport operations access to LAWA jobs. Those communities are a part of the Project Impact Area (PIA) and are comprised of South Los Angeles, El Segundo, Hawthorne, Inglewood, and Lennox.

LAWA competitively selected Agile 1 to automate the FHSP. Automated in August 2009, the new Applicant Tracking System (ATS) is able to quickly assist LAWA and benefits LAX employers also in need of prescreened and qualified individuals for employment consideration. In addition to the automation, Agile 1 provides two full-time staff to facilitate the program.

On September 2, 2009, Penauille Servisair was the first company to hire someone utilizing the ATS. Through the system and in close cooperation with the Agile 1 staff, Penauille hired a Class B shuttle bus driver. The candidate was referred by the LA Urban League Worksource Center.

The BJRD works closely with the Work Source, One-Stop Centers, community and faith-based organizations that serve the airport area and beyond to register potential candidates on the ATS for positions with LAX employers. We are training the job developers at these organizations to prescreen and qualify their clients to be eligible for opportunities at LAX as they arise. Their clients are now also able to post their resumes and apply for positions on line and those applications are reviewed by hiring managers in the terminals. The software also manages the interview schedule.

In June 2009, LAWA selected Walsh-Austin JV as the prime contractor for the Tom Bradley Gates and Core Projects at LAX. They will list their open positions on the FSHP ATS and encourage their subcontractors to follow suit as they begin their work at LAWA.

The BJRD also participates in the Mayor's monthly roundtable with the proprietary departments to discuss and work through workforce development initiatives and in the Mayor's South Los Angles Initiative. The purpose of this initiative is to insure that job opportunities for residents in areas that experience disproportionate levels of poverty and unemployment compared to other areas are given opportunities for employment consideration. Many of these residents live in the designated Project Impact Area.

<u>As of 6/30/2009 - Actual</u>

FSHP	*Referrals*	*2,717* **	*Hires:*	*603****

***These candidates were referred to approximately 952 positions with 71 LAWA employers.*

****Number of confirmed hired, actual number may be higher.*

With 56 Program Partner Companies

<u>Hiring Goals:</u>	*Through June 2008*	*through June 2009*
FSHP	*250*	*675*

Gateways Internship Program

LAWA's high school and college internship programs were adjusted to meet the current economic realities. The high school program was reduced from full-year funding to summer only funding for the 25 positions in the and all 25 positions were filled for the summer. The college program, also with 25 students, will be reduced to 12 students in the new fiscal year. Volunteer students are always welcome to participate in the program. Furthermore, the BJRD has been able to provide a limited number of other than LAWA funded internships at LAX by leveraging our partnerships with other organizations and educational institutions, through stimulus dollars.

In addition to students from local schools, the BJRD also attracts international students who wish to volunteer at LAX. This year we hosted international students from Germany, Korea, and Japan.

As a result of funding from the American Recovery and Reinvestment Act (ARRA), many community based organizations have approached LAWA to place youth in airport jobs. We are working with the LAWA employers to assist in the placement of both youth and adults in support of the Federal Stimulus Program.

Section VI. Living Wage, Worker Retention, and Contractor Responsibility

The Agreement states:

"LAWA shall apply to all Airport Contractors, Airport Lessees, and Airport Licensees the City's Living Wage Ordinance, as set forth in Los Angeles Administrative Code Section 10.37; the City Worker Retention Policy, as set forth in Los Angeles Administrative Code Section 10.36; and the Contractor Responsibility Program set forth in BOAC Resolution No. 21601, in accordance with City policy."

Status → Completed:

This provision currently applies to all LAWA contracts as set forth in Board Resolution No. 21601.

Section VII. Air Quality Study

The Agreement states in part:

"Air Quality Study. LAWA shall fund a study by an Independent Expert of toxic air contaminants and criteria air pollutant emissions from jet engine exhaust and other emission sources ("Air Quality Study"). In addition to other contaminant and pollutant emissions, the Air Quality Study shall measure jet engine exhaust emissions and provide chemical composition data from a representative sample of engine types and ages under a variety of conditions that reflect actual operations, and shall include this data and all other relevant study results as part of the final study provided to LAWA."

Status → In Progress:
LAWA commenced an Air Quality and Source Apportionment Study (AQSAS) to assess air quality in areas adjacent to LAX. This AQSAS will be the most comprehensive air monitoring, modeling, and data analysis program to be undertaken by LAWA for one of its facilities.

This study will include the installation-monitoring stations in selected areas to collect and measure both criteria and toxic air pollutants on site at LAX and at sites in the communities surrounding LAX. This study was planned to be conducted in three phases. The first phase commenced in March 2008. The second phase included a Technology and Methodology Feasibility Demonstration Project (Demonstration Project) where data was collected continuously at five on-airport sites during June, July, and August 2008 to assess the feasibility of the approach and methodology for Phase 3. The results of the Demonstration Project will be used to validate the scientific approach of the long-term study.

The Study's scope or Work Plan was developed by a Technical Working Group (TWG) comprised of representatives from U.S. Environmental Protection Agency (EPA), Federal Aviation Administration (FAA), California Air Resources Board, South Coast Air Quality Management District, State of California Office of Environmental Health Hazard Assessment, Desert Research Institute, University of Southern California, research experts in the fields of receptor modeling and air pollutant monitoring, and representatives from community organizations.

Several meetings were held in 2008 to communicate the status, progress and results of the study to a larger Briefing Group consisting of a diverse panel of environmental and public health regulatory agencies, as well as Federal, State and Local elected officials.

At the commencement of the Demonstration Project, LAWA only authorized funding for the consultant to perform Phases 1 and 2 since a detailed scope for Phase 3 could not be developed until the Demonstration Project was completed and the data fully analyzed. In 2008, the Study's TWG reviewed the draft documentation from the Technology and Methodology Feasibility Demonstration Project (Demonstration Project) and recommended that additional evaluation of the data was needed prior to developing an approach and work plan for Phase 3. Planning is currently underway to develop an approach to complete the study.

In September 2008, a website was created to make project information available to the public. The website includes background information on the study, the schedule and photographs of the Demonstration Project, and handout materials and presentations. The website will continue to be updated as project information becomes available. The website address is http://www.lawa.org/welcome_lax.aspx?id=1060

VIII. Health Study

The Agreement states in part:

"Health Study. LAWA shall fund a study to measure and investigate upper respiratory system and hearing loss impacts of LAX operations due to LAX Master Plan Program. LAWA, in consultation with the Coalition Representative, shall develop a scope of work and objectives for the Health study…"

Status → Not applicable at this time:
It is expected that the Health Study will commence after the completion of the Air Quality Study described in Section VII.

Section IX. Community-Based Research Studies as Part of LAWA's Future LAX Master Plan Program Project-Level Analysis

The Agreement states in part:

"Inclusion in Project-Level Environmental Analysis. LAWA acknowledges that, pursuant to CEQA, it will perform additional environmental review on the various LAX Master Plan Program project components as they are processed for future approval. In undertaking this additional environmental review, LAWA shall require the general contractor preparing the environmental documents for these future project-level analysis to subcontract with an Independent Expert to coordinate community-based research studies as described in Section IX.B (the "Community-Based Studies"), that are designed to become a part of the environmental analysis. LAWA shall expend no less than $300,000 on the Community-Based Studies. As future project-level environmental documents are prepared for LAX Master Plan Program projects, LAWA is not required to utilize the Community-Based Studies as part of each project-level environmental review, and shall have discretion to determine whether a particular project-level analysis would be appropriate for including the Community-Based Studies…"

Status → Not applicable at this time:
LAWA determined that none of the project-level environmental analysis conducted in 2009 was appropriate for including the Community-Based Studies.

Section X. Air Quality

The Agreement states in part:

Section X.A. Electrification of Passenger Gates

"1. Passenger Gate Electrification Schedule. LAWA shall ensure that all Passenger Gates are equipped and able to provide electricity sufficient for aircraft needs under the following schedule:

a. All Passenger Gates for which new construction (excluding maintenance) is completed after the effective date of this Agreement shall be equipped and able to provide electricity to parked aircraft from date of initial operation and at all time thereafter.

b. Three years from the effective date of this Agreement, and at all times thereafter, at least fifty percent of Passenger Gates at LAX shall be equipped and able to provide electricity to parked aircraft.

c. Five years from the effective date of this Agreement, and at all times thereafter, one hundred percent of Passenger Gates at LAX shall be quipped and able to provide electricity to parked aircraft.

2. Aircraft Use of Gate-Provided Electricity. LAWA shall ensure that gate-provided electricity is provided to all aircraft parked at Equipped Passenger Gates and, except for the exemptions identified in this section, that all aircraft use the gate-provided electricity in lieu of engine operation of aircraft or mobile/ground auxiliary power units…

3. Assessment of Electrification of Passenger Loading Areas. LAWA shall conduct an assessment of operations at Passenger Loading Areas for the purpose of determining whether electrification of Passenger Loading Areas is Operationally Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…

4. Commuter Flight Loading and Unloading. By the conclusion of the LAX Master Plan Program, loading and unloading of passengers of commercial aircraft shall be performed only through Passenger Gates."

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment. The first phase found that centralized 400 hertz power, or equivalent, is available for aircraft use at all gates (100%). In addition, over 55 percent of the gates also have available pre-conditioned air. All new gates will also have pre-conditioned air available.

Section X.B. Electrification of Cargo Operations Areas

"1. Cargo Operations Areas Electrification Schedule. LAWA shall ensure that all, unless determined under procedures described below to be Operationally Infeasible and/or Technically Infeasible, all Cargo Operations Areas are equipped and able to provide electricity sufficient for aircraft needs as following:

a. All Cargo Operations Areas for which new construction, not maintenance, is completed after the effective date of this Agreement shall be equipped and able to provide electricity to parked aircraft from date of initial operation of the Cargo Operations Area at LAX and at all time thereafter.

b. Three years from the effective date of this Agreement, and at all times thereafter, at least fifty percent of Cargo Operations Areas at LAX shall be equipped and able to provide electricity to parked aircraft.

c. Five years from the effective date of this Agreement, and at all times thereafter, one hundred percent of Cargo Operations Areas at LAX shall be equipped and able to provide electricity to parked aircraft.

2. Aircraft in Cargo Operations Areas Use of LAX-Provided Electricity if Available. LAWA shall ensure that electricity sufficient for aircraft needs is provided to all aircraft parked at Equipped Cargo Operations Areas and that all these aircraft use LAX-provided electricity as power in lieu of engine operation of aircraft or ground/mobile auxiliary power units…

3. Assessment of Electrification of Cargo Operation Areas and Feasibility Evaluation. LAWA shall conduct an assessment of Cargo Operations Areas for the purpose of evaluating whether electrification of a particular Cargo Operations Areas is Operationally Infeasible and/or Technically Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…"

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment and is evaluating the electrification program for cargo operations at individual locations.

Section X.C. Electrification of LAX hangars

"LAWA shall conduct an assessment of operations at LAX Hangars for the purpose of determining whether electrification of LAX Hangars to provide electricity sufficient for aircraft needs at LAX Hangars is Operationally Infeasible and/or Technically Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…"

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment and is evaluating the electrification program at these hangars.

Section X.D. FAA Prohibition

"If an FAA Determination, as defined in and pursuant to the procedures set out in the Cooperative Agreement, or any other regulatory authority prohibits LAWA from taking actions required by Subsections A through C of this Section X, or threatens to withhold federal funding if LAWA takes actions required by Subsections A through C of this Section, then LAWA shall set aside $1.7 million to the air quality fund described in Section XV."

Status → Not applicable at this time:
Action required only if the FAA prohibits LAWA from implementing this section.

Section X.E. Reporting

"LAWA shall report in writing to the Coalition Representative on the progress of electrification of Passenger Gates, Cargo Operations Areas, and LAX Hangars semiannually. Reports shall include, but not be limited to, the number and types of facilities and areas electrified, operational guidelines issued, a summary of exemptions granted, reports of violations of usage requirements, and actions taken by LAWA to enforce usage requirements."

Status → In Progress:
Currently part of the CBA annual report.

Section X.F. Construction Equipment

Best Available Emission Control Devices Required. LAWA shall require that all diesel equipment used for construction related to the LAX Master Plan Program be outfitted with the best available emission control devices primarily to reduce diesel emissions of PM, including fine PM, and secondarily, to reduce emissions of NOx. This requirement shall apply to diesel-powered off-road equipment (such as construction machinery), on-road equipment (such as trucks) and stationary diesel engines (such as generators).

Status → In Progress:
As stipulated in Section X.F.8 of the Community Benefits Agreement (CBA), an Independent Third Party Monitor was retained by LAWA to monitor compliance with the requirements of Section X.F. The role of the Independent Third Party Monitor was to monitor, document, and report on a semi-annual basis to LAWA and the Coalition compliance with all elements of Section X.F., including but not limited to the use of verified diesel emission control systems (VDECS) on LAX Master Plan Program construction-related diesel equipment, a summary of exemptions granted, and any reports of violations or noncompliance with the requirements of CBA Section X.F.

The following is an update of activities and findings reported by the Independent Third Party Monitor as it relates to diesel construction equipment utilized on the Crossfield Taxiway Project (CFTP) and Aircraft Rescue and Fire Fighting Station (ARFF) construction projects.

Section X.F.1 – Best Available Emissions Control Devices Required

All diesel equipment used for construction related to the LAX Master Plan Program is required to be outfitted with best available emission control devices, primarily to reduce diesel particulate matter emissions, including fine particulate, and secondarily to reduce emissions of oxides of nitrogen (NOx). This requirement applies to diesel-powered off-road equipment, on-road equipment, and stationary diesel engines. The emission control devices utilized for the equipment at the LAX Master Plan Program construction shall be verified or certified by the California Air Resources Board (CARB) or Environmental Protection Agency (EPA) for use on on-road or off-road vehicles or engines.

Status → In Progress:
The Independent Third Party Monitor reviewed the documentation submitted by the Contractors for each piece of diesel equipment utilized on the CFTP and ARFF or proposed for use on the CFTP and ARFF relative to compatibility with Best Available Emissions Control Devices. Approximately 62 pieces of diesel equipment have been assessed to date to determine compatibility with a CARB-verified or EPA-certified diesel emission control device.

To assist in performance of this Section, the Independent Third Party Monitor developed and implemented a monitoring process to track each piece of diesel equipment and document each construction firm's compliance as it related to outfitting their diesel construction equipment with the best available emissions control devices.

The findings for this Section are as follows:

- *During CFTP and ARFF major construction, approximately 35 percent of all diesel equipment operating or identified for potential operation was equipped with a diesel engine compatible with a Level 3 (85 percent particulate matter reduction) off-road Verified Diesel Emission Control System (VDECS). Diesel equipment determined to be compatible with a Level 3 VDECS was required to be retrofitted prior to commencing work.*
- *Off-road diesel equipment operating on the CFTP and ARFF whose engines were determined to be compatible with a Level 3 VDECS, but not retrofitted with the best available emissions control technology, were documented to ensure the equipment had been granted an exemption in accordance with Section X.F.4.*

X.F.2 - Demonstration Projects

Notwithstanding the verification or certification requirement set forth in Section X.F.1, LAWA may allow diesel equipment used for construction related to the LAX Master Plan Program to be outfitted with a new emission control device designated by LAWA as a "Demonstration Project", even if the device has not yet been verified or certified by CARB or EPA for use in on-road or off-road vehicle or engine applications. These devices shall, at a minimum, meet all pollution reduction requirements specified in Section X.F.3.

Status → In Progress:
The Independent Third Party Monitor is available to assist LAWA and the LAX Coalition in identifying potential opportunities to conduct a Demonstration Project in accordance with Section X.F.2. No Demonstration Projects were initiated during CFTP and ARFF construction during 2009.

Section X.F.3 - Emission Reduction Standards

Emission control devices used pursuant to Section X.F.1 shall achieve emission reductions no less than what would be achieved by a Level 2 (50 percent particulate matter reduction) diesel emission control strategy for a similar sized engine as defined by CARB regulations. Under no circumstances shall an emission reduction device or strategy used on the LAX Master Plan Program construction site increase the emission of any pollutant above that which is the standard for that engine.

Status → In Progress:
The Independent Third Party Monitor assessed each piece of diesel construction equipment equipped with a VDECS pursuant to Section X.F.1 and documented its compliance as it related to meeting or exceeding Level 2 diesel emission reductions.

Final findings for this Section are as follows:

With respect to CFTP and ARFF construction activities during 2009, twenty one (21) pieces of diesel construction equipment were equipped with VDECS. The majority of equipment was retrofitted using the HUSS FS-MK diesel particulate filter, verified at Level 3 (greater than 85 percent particulate matter reduction). No Level 1 or Level 2 VDECS were identified for equipment assessed pursuant to Section X.F.1;

The Third Party Monitor verified with CARB that the Level 3 device utilized on the CFTP and ARFF did not result in an increase of any pollutant above which is standard for that equipment's engine.

Section X.F.4 – Exemptions

The requirements of Sections X.F.1 through X.F.3 do not apply to a piece of construction related diesel equipment for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emissions of pollutants as requires by Sections X.F.1 through X.F.3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing exhaust emissions is available and appropriate for that vehicle or engine, if any. In addition, Sections X.F.1 through X.F.3 do not apply to a piece of construction related diesel equipment that is used on LAX Master Plan Program construction sites for fewer than twenty- (20) calendar days per calendar year.

Status → In Progress:
The Third Party Monitor reviewed each piece of diesel construction equipment proposed for use on the CFTP and ARFF as it pertained to the requirements of Sections X.F.1 and X.F.3 and independently determined if a CARB verified or EPA certified diesel emission control system was compatible. These findings were documented and compared with exemptions granted by LAWA. Findings for this Section are as follows:

- *Equipment whose engine is compatible with a CARB verified or EPA certified diesel emission control system, but whose use on the CFTP and ARFF would not exceed twenty (20) calendar days per calendar year was granted a "20-day" exemption by LAWA. The Third Party Monitor maintained an independent database of all equipment operating under the 20-day exemption rule, including the date the equipment was moved onsite and the date the equipment was required to be removed from the airfield;*
- *The Third Party Monitor reviewed and documented cases in which it appeared a CARB verified diesel emission control system was compatible with a piece of equipment that had received a previous exemption from LAWA. Each case was subsequently investigated to determine why an exemption had been granted. Specific types and models of off-road construction equipment, including rubber tire loaders and motor graders, received an exemption from installing a VDECS due to safety concerns. It was determined that the VDECS would impair the equipment operator's field of vision. Thus, these vehicle classes received an exemption from LAWA on the basis of safety. The Independent Third Party Monitor reviewed and documented each piece of diesel construction equipment that received a safety exemption;*
- *The Third Party Monitor also independently assessed and documented diesel equipment for which no CARB verified or EPA certified diesel emission control system was available. This equipment was granted an exemption by LAWA on the basis of unavailability.*

Section X.F.5 - Ultra-Low Sulfur Diesel and Other Fuels

All diesel equipment used for construction related to the LAX Master Plan Program shall use only Ultra-Low Sulfur Diesel Fuel (ULSD) with a sulfur content of fifteen (15) parts per million or lower. If adequate supplies of ULSD are not available in the Southern California area, other fuels may be used, provided that the other fuels do not result in greater emissions of fine particulate matter or oxides of nitrogen that that which would be produced by the use of ULSD.

Status → In Progress:
The Third Party Monitor independently reviews and documents fuel purchase records for diesel fuel used on the CFTP and ARFF. Findings for this Section are as follows:

- *South Coast AQMD Rule 431.2, which took effect on June 1, 2006, requires diesel fuel refined and sold for on-road and off-road use within the jurisdiction of the AQMD to contain no more than 15 parts per million (ppm) sulfur by weight. This requirement was subsequently adopted on a statewide basis by the California Air Resources Board, effective September 1, 2006. Thus, ULSD is the only diesel fuel legally available for purchase within California;*

- *No shortage of ULSD was experienced within Southern California during CFTP and ARFF construction in 2009. No substitution of any fuel in lieu of 15 ppm ULSD occurred during CFTP and ARFF construction;*

- *The Third Party Monitor reviewed fuel purchase records as provided by LAWA on behalf of the construction firms operating equipment on the CFTP and ARFF. No exceptions to the requirements of Section X.F.5 were documented;*

- *The Independent Third Party did not monitor on-road vehicles operating on the CFTP and ARFF that were fueled off-site. Fuel purchase records were only provided for vehicles that were fueled on the airfield using mobile refueling trucks.*

Section X.F.6 - Operational Requirements

Operational Requirements pertaining to excessive vehicle idling and required engine maintenance intervals shall be issued by LAWA and enforced.

Status → In Progress:
The Third Party Monitor monitored excessive vehicle idling enforcement and compliance with engine maintenance intervals based on independent observation, review of enforcement action documentation, and review of construction firm engine maintenance procedures and records. Findings as it relates to this Section are as follows:

- *No written violations pertaining to excessive equipment idling were cited by LAWA on any construction firm. On infrequent occasions, vehicles deemed to be idling beyond the period of time stipulated in CARB regulations were instructed to turn off their engines. Formal enforcement actions were not deemed necessary by LAWA;*
- *Each construction firm proposing a piece of diesel equipment was required to submit in writing the scheduled maintenance procedures for that piece of equipment. The Third Party Monitor has reviewed each maintenance plan submitted to LAWA.*

Section X.F.7 – Enforcement by LAWA

Compliance with all requirements delineated in Sections X.F. is required of all Airport Contractors, Airport Lessees, and Airport Licensees. LAWA shall enforce the findings and determinations of the Independent Third Party Monitor.

Status → In Progress:
No formal enforcement actions were taken by LAWA in 2009 as it pertains to CFTP and ARFF construction activities. No public complaints related to CFTP and ARFF construction activities were received in 2009.

Section X.F.8 – Independent Third Party Monitor

Compliance with requirements of Section X.F. is required to be monitored, documented, and reported by an Independent Third Party Monitor.

Status → In Progress:
LAWA retained an Independent Third Party Monitor. The findings of the Independent Third Party Monitor are reported in this document and in Appendix B.

Section X.F.9 – Reassessments of Emission Control Devices

"LAWA shall designate the best available emission control devices annually or more frequently, in consultation with the Coalition Representative and the Independent Third Party Monitor. LAWA, in consultation with the Coalition Representative, shall establish processes to revise these designations and incorporate the requirement to use the emission control devices newly designated as best available into construction bid documents to take into account advances in emission control devices prior to bidding of new construction phases of the LAX Master Plan Program. The process of emission control technology review shall include any new relevant requirements promulgated by CARB or EPA. Results from the reassessments shall not be applied retroactively."

Status → In Progress:

The Independent Third Party reviewed each piece of diesel construction equipment proposed for use on the CFTP and ARFF for compatibility with newly verified Level 3 VDECS. While it was understood that the requirement to utilize a new VDECS could not be applied retroactively for equipment operating on the CFTP and ARFF, the reassessment process and findings will be used to designate best available control emission devices for subsequent LAX Master Plan Program construction projects.

Section X. G. Ground Service Equipment Diesel Emissions Reduction Incentive Program

"GSE Incentive Program. LAWA shall create a program providing incentives for the reduction of GSE diesel emissions ("GSE Incentive Program"). LAWA shall expend at least $500,000 on the GSE Incentive Program. Participation by GSE operators in the GSE Incentive Program shall be voluntary. Funding for the program shall commence in fiscal year 2005-06."

Status → In Progress:
See Section X.I. regarding status of GSE Requirements.

Section X. H. Ground Service Equipment Inventory

"1. Scope of GSE Inventory. LAWA shall prepare a study ("GSE Inventory") detailing all GSE operated On-Site. The GSE Inventory shall include, but not be limited to, an inventory of the number, type, sizes, model year, usage history, and identify of operator for all GSE operated On-Site at the time of the GSE Inventory…

2. Determination of 1997 GSE Fleet for Nonparticipating GSE Operators. The GSE Inventory shall include a determination of the number and types of On-Site GSE that were operated On-Site in 1997 by each Nonparticipating GSE Operator…"

Status → Complete:
The study has been completed and the- results were issued to the Coalition in May of 2007.

Section X.I. Requirements for Emissions Reductions by Nonparticipating GSE

"In order to achieve emission reductions from GSE operated at LAX by Nonparticipating GSE Operators, LAWA shall issue requirements leading to the use of less-polluting GSE by Nonparticipating GSE Operators, as described in this Section X.I. New, amended, renewed, or extended Airport Contracts, lease agreements, and any relevant LAX licensing or permitting requirements for Nonparticipating GSE Operators shall include language requiring compliance with requirements of this Section X.I. and allowing assessment of liquidated damages as described in this Section X.I against any entity responsible for a violation…"

Status → In Progress:
LAWA is evaluating strategies and options for GSE emission reductions in compliance with this section.

Section X.J. Emission Reductions From On-Road Trucks, Buses, and Shuttles

"1. Inventory of On-Road Heavy-Duty Vehicle Traffic and Study of Feasible Mitigation

a. Heavy-Duty Vehicle Study. LAWA shall fund a study of on-road Heavy-Duty Vehicle traffic related to LAX Operations. This study shall begin no later than one year from the effective date of this Agreement. The study shall be completed within twelve months of its initiation. The Study shall be conducted by an Independent Expert, selected through a Contract Award Process…"

Status → In Progress:
A draft scope for this study was submitted to Coalition in July 2005.

"2. Conversion of Truck, Shuttles, Passengers, Vans and Buses to Alternative Fuel

a. Covered Vehicles. Requirements established under this Section X.J.2 shall apply to all on-road vehicles, including trucks, shuttles, passenger vans, and buses, that are 8,500 lbs gross vehicle weight rating or more and are used in operations related to LAX ("Covered Vehicles"). Diesel equipment for construction related to the LAX Master Plan Program that is subject to Section X.F. of this Agreement shall be exempt from requirements established pursuant to this Section X.J.2.

b. Conversion Schedule. LAWA shall ensure that by five years from the effective date of this Agreement, 50 percent of the Covered Vehicles operated by any Airport Contra tor, Airport Lessee, and Airport Licensee (collectively "Operators") are Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles. LAWA shall ensure that by ten years from the date of execution of this Agreement, 100 percent of the Covered Vehicles operated by each Operator are Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles.

c. Least-Polluting Available Vehicles. In cases where Operators cannot comply with requirements established pursuant to Section X.J.2.b because neither Alternative-Fuel Vehicles nor Optional Low NOx Standard Vehicles are commercially available for performance of particular tasks, LAWA shall instead require Operators to use Least-Polluting Available Vehicles for such tasks. An Independent Third Party Monitor shall determine on an annual basis whether Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles are commercially available to perform particular tasks, and, in cases where Alternative-Fuel Vehicles or Optional Low Standard Vehicles are not commercially available for performance of a particular task, shall identify the Least Polluting Available Vehicles for performance of that task."

Status → In Progress:

LAWA has an Alternative Fuel Vehicle Requirement Program that applies to all on-road vehicles weighing 8,500 lbs gross or larger. This program is currently in effect and requires the conversion of car rental shuttles, trucks, and other large vehicles in use at LAX.

LAWA has taken a leadership role to meet this commitment and not only has LAWA met the mid-way milestone for vehicles over 8,500 pounds but the entire LAX fleet is 71% alternative fuel. One hundred percent (100%) of the LAX courtesy shuttles are alternative fuel.

Besides LAWA, the attention has been on larger vehicles that make many trips daily to LAX. These include rental car shuttles, the hotel and motel shuttles and off-airport parking lot shuttles. In these categories, LAWA have had success as well. Total compliance of the LAX, rental car shuttles, hotel/motel shuttles and off-airport parking shuttle fleets is 59.6%. The rental car shuttles have achieved an overall compliance rate of 85.2% with 7 of the 10 companies at 100%.

Section X.K. Particulate Matter (PM 2.5)

"1. Assessment of PM 2.5. LAWA shall assess and mitigate impacts of PM 2.5 in compliance with all applicable provisions of state and federal law. LAWA's obligation to mitigate PM 2.5 impacts within the context of the CEQA may be limited by feasibility, overriding considerations or other requirements articulated in applicable state and federal laws.

2. Determination of PM 2.5 Significance Thresholds. The assessment and mitigation of PM 2.5 impacts shall comply with the requirements for both attainment of PM 2.5 ambient air quality standards and the mitigation of significant project-related and cumulative impacts under CEQA.

3. Conferring with Applicable Agencies. LAWA shall confer with applicable agencies, including SCAQMD, CARB, and the EPA, to assure compliance with state and federal PM 2.5 ambient air quality standards after guidance for measuring and evaluating exceedances has been established. With respect to projects requiring

CEQA analysis, LAWA shall include the SCAQMD as a responsible agency in the review process to seek adherence to the threshold standards to be established.

4. LAWA Project Assessment of PM 2.5. LAWA shall conduct and complete a CEQA assessment of PM 2.5 impacts related to the first LAX Master Plan Program project to be initiated after establishment of applicable thresholds, either by SCAQMD or as outlined above. This assessment shall be completed in consultation with SCAQMD as a responsible agency in the CEQA review process."

Status → In Progress:
In 2008, LAWA initiated environmental analysis of the Crossfield Taxiway Project (CFTP) and published a Draft Environmental Impact Report (EIR) on September 25, 2008. The Draft EIR included an assessment of PM 2.5 impacts in its air quality analysis. Note: This requirement was not considered to apply to the SAIP based on the fact that the CEQA analysis for that project was already well underway before the CBA took effect (i.e., SAIP EIR NOP was published in August 2004, while CBA was not executed until February 2005.)

Section X.L. Rock-Crushing Operations and Construction Material Stockpiles

"LAWA shall locate rock-crushing operations and construction material stockpiles for all construction related to the LAX Master Plan Program in areas away from LAX-adjacent residents to reduce impacts from emissions of fugitive dust…"

Status → In Progress:
Subject requirement was included in construction specifications of the Crossfield Taxiway Project (CFTP) and the rock-crushing plant for the CFTP project complied with this requirement. This request is included in construction specifications for all upcoming projects at LAX.

Section X.M. Limits on Diesel Idling

"LAWA shall prohibit diesel-powered vehicles from idling or queuing for more than ten consecutive minutes On-Site, unless CARB adopts a stricter standard, in which case LAWA shall enforce that standard. Exemptions to this rule may be granted for safety-related and operational reasons, as defined in CARB regulations."

Status → Complete:
Subject requirement was included in construction specifications for the CFTP and was monitored by LAWA's Independent Third Party Monitor. This requirement will be included in construction specifications for all upcoming projects at LAX.

Section X.N. Provision of Alternative Fuel

"LAWA shall ensure that its infrastructure for providing fuel to Alternative-Fuel Vehicles is sufficient and available, where not Operationally Infeasible and/or Technically Infeasible, to meet all requests for alternative fuel from contractors and other uses of LAX."

Status → Complete:
LAWA has this infrastructure developed.

Section X.O. Hydrogen Fuel Cell Infrastructure

"LAWA shall support efforts to place a hydrogen fuel cell system for the generation of electricity at or near LAX. This fuel cell system shall meet or exceed CARB 2007 distributed generation certification standard."

Status → Complete:

LAWA investigated the use of fuel cells for the Central Utility Plant replacement project (CUP-RP) Environmental Impact Report. The use of fuel cells would not be feasible due to size constraints and energy inefficiency. The space required to generate 9 megawatts (MW) of power using fuel cell power generation units would exceed the space available for the new CUP-RP. In addition, fuel cell technology would fail to capture the energy efficiency of co-generation, which allows for combining steam and power production.

Section X.P. Cleaner Burning Jet Fuels

"LAWA shall support efforts to encourage the airlines and petroleum industries to embark on a study to promote the use of jet fuels that minimize air pollutants emissions from jet engines."

Status → In Progress:
LAWA continues to monitor and support efforts where appropriate.

XI. Green Building Principles

The Agreement states in part:

"To the extent practical and feasible, in accordance with local building codes and California state codes, and subject to limitation or restrictions in accordance with FAA or Transportation Security Administration standards guidelines, LAWA shall incorporate Leadership in Energy and Environmental Design (LEED) building standards into demolition, design, construction and operation of all aspects of the LAX Master Program. LAWA shall apply the LEED standards for New Commercial and Major Renovations, Version 2.1, as defined by the U.S. Green Building Council.

LAWA shall abide by all applicable City regulations with respect to energy efficiency, sustainability and green building design."

Status → In Progress:
Currently in practice to the extent feasible and practical. LAWA has developed the Airport's Sustainability Planning, Design, and Construction Guidelines. In addition, LAWA issues an annual Sustainability Report that is attached in Appendix C.

XII. Traffic

The Agreement states in part:

"A. Construction Traffic.

1. Designated Routes. LAWA shall designate routes for construction equipment, construction-related vehicles, and trucks participating in construction projects related to the LAX Master Plan Program to access LAX. These route designations shall ensure that such construction equipment, construction-related vehicles, and trucks do not travel (i) on 111th Street between Hawthorne Boulevard and Inglewood Avenue; (ii) on 104th Street between Hawthorne Boulevard and Inglewood Avenue; (iii) on Inglewood Avenue between Century Boulevard and Inglewood Ave….

    a. Community Response Program. LAWA shall establish a mechanism for members of the public to report instances of non-compliance with designated truck routes….

2. Lennox/405 Interchange. If LAWA participates in construction of an interchange to the 405 Freeway at Lennox Boulevard, LAWA shall consult with the Coalition Representative and impacted residents in developing mitigation measures that shall be included in the project's Environmental Impact Report, to minimize negative impacts such as residential relocations and the demolition of a community center. These mitigation measures shall include pedestrian and bicycle access over or under the 405 Freeway at Lennox Boulevard, to ensure that local residents can safely access both sides of the 405 Freeway at Lennox Boulevard."

Status → In Progress:
LAWA, working with L.A. Department of Transportation, designates routes for construction traffic on a project by project basis. LAWA developed a website to provide construction information for the general public, including a phone number to report incidences of non-compliance.

XIII. Minority Business Enterprise, Women Business Enterprise, and Small Business Utilization and Retention Program

The Agreement states in part:

"A. LAWA shall coordinate with the Mayor's Office, CDD, and other relevant business advocacy and assistance organizations to initiate a program to increase participation in the planning, construction, operation and maintenance of LAX by Project Impact Area small businesses and minority-owned business enterprises and women-owned business enterprises (MBE/WBE)…..

Status → In Progress:
LAWA is currently working closely with the Mayor's Office, CDD, and other business advocacy groups to enhance MBE/WBE participation on all LAWA projects. The Small Business Program provides an entry point through which local business enterprises can obtain information on future airport business contracting opportunities and on a wide array of business assistance services, networking activities, workshops, and referrals. LAWA has established a facility near the Airport, on Century Boulevard, with enough square footage to house staff; consultants; and a Surety Bond Liaison. LAWA will serve as a clearinghouse for information in its three core program areas: business outreach, employment outreach, and educational outreach.

A new website was launched on July 28, 2009. The new site www.lawa.org/bjrc features each LAWA service line: Business Outreach, Bond Assistance, Gateways Internship, Job Training, and First Source Hiring. It contains interactive applications for users to create and post resumes as well as apply for open positions and internships at LAWA. There is a link to the Los Angeles Business Assistance Virtual Network (BAVN) which provides information about upcoming procurement opportunities and job fairs.

The Business Database will be the next innovation to be added to the site. It will allow prime contractors to locate qualified MBE, WBE and DBE subcontractors who have previously worked on LAWA projects.

XIV. Community Preparedness for Airport-Related Emergency

The Agreement states:

"LAWA shall assist in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, FEMA), and the local communities in the event of an airport-related emergency."

Status → In Progress:
LAWA continues to coordinate with local law enforcement agencies, emergency response groups, and local communities. LAWA's Executive Director is a member of the advisory team for the Los Angeles Mayor's Homeland Security Advisors Group. This group of diverse leaders will improve the City of Los Angeles' counter-terrorism intelligence coordination and disaster preparedness training and response capabilities. The advisory team will be organized into working groups and tasked with five major missions: Counter-terrorism measures; Private sector outreach and involvement; Governmental outreach and involvement; Evacuation planning; and Emergency Preparedness.

XV. Designated Airport Fund

The Agreement states in part:

"Where this Agreement provides that LAWA shall contribute airport revenues to job training funds or air quality funds, LAWA will follow the procedures set forth in the Cooperative Agreement regarding "Alternative Job Training and Air Quality Expenditure."

Status → In Progress:
If an FAA determination, as defined in and pursuant to the procedures set out in the Cooperative Agreement, or any other regulatory authority prohibits LAWA from taking actions required by the CBA Sections V, VII, VIII, IX, X, or threatens to withhold federal funding if LAWA takes actions required by the referenced sections, then LAWA will set aside funds to the Job Training and Air Quality Funds to the extent allowed.

XVI. Miscellaneous

The Agreement states in part:

"A. Implementation Meetings. To facilitate implementation of this Agreement, address concerns, and ensures an ongoing dialogue between the Coalition Representative and LAWA, the Coalition Representative and LAWA shall have regular Implementation Meetings….

B. Annual Reports. LAWA shall prepare annual reports on the implementation of this Agreement and the progress of the LAX Master Plan Program, and shall forward these reports to the Coalition Representative and post the reports on the LAWA website for at least a one-month period….

C. Contract Award Process. Where a provision of this Agreement refers to a Contract Award Process, that process shall be as described in this Section XVI.C. A Contract Award Process is "initiated" on the date the draft protocols and/or scope of work to be included in the RFP are provided to the Coalition Representative…"

D. Special Arbitrator.

E. General LAWA Enforcement Responsibility…"

Status → In Progress:
Implementation meetings are held regularly with the Coalition. LAWA prepares annual reports on the implementation of the CBA and the progress of the LAX Master Plan Program.

4.0 Lennox School District – Sound Attenuation Measure

The Agreement states in part:

"LAWA Funding of Certain District Mitigation Measures. Subject to FAA Determination regarding the use of airport funds under the federal anti-revenue diversion laws, LAWA will fund certain mitigation measures for the District not to exceed $118,500,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

Security-Related Items. LAWA will assist the District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, Federal Emergency Management Agency) and the local communities in the event of an airport-related emergency.

Community Programs. LAWA will work collaboratively with the District to support a variety of community programs, such as job training and academic programs; and…"

Status → In Progress:
On December 7, 2005, LAWA and Lennox School District submitted a request to the FAA for an advisory opinion on the use of airport revenues for noise mitigation measures at Whelan School. In their response on January 12, 2006, the FAA raised questions and issues regarding the Los Angeles County Superior Courts' April 8, 1976 Judgment and Final Order. On October 2, 2008, Public Law 110-337 authorized the Secretary of Transportation to expand the use of passenger facility fees for the purpose of carrying out certain noise mitigation at Inglewood and Lennox Unified School Districts.

In July 2009, LAWA submitted a letter to the FAA on behalf of Lennox School District asking that the Secretary of Transportation make a determination, based on Public Law 110-337, that certain schools in Lennox are adversely affected by airport noise, and thereby would be eligible for PFC funding for noise mitigation. Subsequently, the FAA indicated to LAWA that this determination will be made as part of the PFC application process. Therefore, LAWA is now working with Lennox School District to provide sufficient information necessary for LAWA to submit the PFC application. In November 2009, Lennox provided a detailed report with cost estimates related to the proposed mitigation work. The PFC application will be submitted to the FAA in the coming months with the expectation that the collection of PFC funds for this program would commence in late 2010.

5.0 Inglewood School District – Sound Attenuation Measure

The Agreement states in part:

"LAWA Funding of Certain District Mitigation Measures. Subject to FAA Determination regarding the use of airport funds under the federal anti-revenue diversion laws, LAWA will fund certain mitigation measures for the District not to exceed $111,000,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

Security-Related Items. LAWA will assist the District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, Federal Emergency Management Agency) and the local communities in the event of an airport-related emergency.

Community Programs. LAWA will work collaboratively with the District to support a variety of community programs, such as job training and academic programs; and…"

***Status → In Progress**:*
On December 7, 2005, LAWA and Lennox School District submitted a request to the FAA for an advisory opinion on the use of airport revenues for noise mitigation measures at Whelan School. In their response on January 12, 2006, the FAA raised questions and issues regarding the Los Angeles County Superior Courts' April 8, 1976 Judgment and Final Order. On October 2, 2008, Public Law 110-337 authorized the Secretary of Transportation to expand the use of passenger facility fees for the purpose of carrying out certain noise mitigation at Inglewood and Lennox Unified School Districts.

In July 2009, LAWA submitted a letter to the FAA on behalf of Lennox School District asking that the Secretary of Transportation make a determination, based on Public Law 110-337, that certain schools in Lennox are adversely affected by airport noise, and thereby would be eligible for PFC funding for noise mitigation. Subsequently, the FAA indicated to LAWA that this determination will be made as part of the PFC application process.

LAWA has drafted a letter to the FAA on behalf of Inglewood Unified School District (IUSD), but this letter is still under review. Further discussions with IUSD are needed to clarify that the list of schools to be included in the letter is the same list used in the Settlement. LAWA is also working with the IUSD to provide sufficient information necessary for LAWA to submit the PFC application; with the assumption that the required adverse impact determination by the Secretary of Transportation will be handled through the PFC application process as is the case with Lennox Schools. To date, IUSD has provided some materials that were prepared in 2000. More recent cost estimates will be required in order for LAWA to amend the PFC application to include the IUSD mitigation program.

6.0 Summary

To date, LAWA continues to implement applicable provisions from the Community Benefits Agreement. Construction-related provisions were included in the CFTP using contract specifications and are being implemented during construction. These provisions are also being incorporated into all ongoing Master Plan projects at this time. Working together with the Coalition, LAWA continues to monitor and implement the required provisions as the LAX Master Plan Program moves forward.

APPENDIX A

UPDATED NOISE MITIGATION PROGRAM AND SCHEDULE

LAWA - Residential Soundproofing Program

November 2009

LAX Residential Soundproofing Program

Background

Los Angeles World Airport's (LAWA) Residential Soundproofing Program (RSP) was established in early 1997 to implement the LAX Aircraft Noise Mitigation Program by soundproofing dwelling units in noise impacted areas in the City of Los Angeles. There are approximately 9,400 residential units in areas of the City of Los Angeles, around LAX, with a recorded Community Noise Equivalent Level (CNEL) of 65 decibels (dB) and higher, as shown on the map produced by LAWA for the fourth quarter of 1992, including approximately 1200 residential units that were added as part of the FAA block rounding program. For the most part, these 9,400 homes are located in Playa del Rey, Westchester and areas of South Los Angeles. The RSP is strictly voluntary and will not incur any cost to the property owner.

Typical examples of soundproofing include replacing or modifying loose-fitting doors and windows with acoustically rated doors and windows, adding insulation to attics, upgrading the air ventilation system, and fitting chimneys and vents with dampers and/or acoustic louvers. Residences located east of the San Diego Freeway also receive a central air conditioning system in lieu of the ventilation system.

The program is on track to be completed by the end of 2012 at a cost of about $160 million. Two soundproofing demonstration model homes continue to be available to interested homeowners, by appointment, one in Playa del Rey, and another within Council District 8. The Soundproofing Program is fully funded by Passenger Facility Charges (PFCs).

Program Status

As of November 30, 2009, the total number of units whose owners have expressed an interest in the program and have signed the initial participation agreement, is 7,667 (this number changes daily as participations and/or declines/delays are recorded on the database). So far, 970 units have been placed on a delayed/declined status or are no longer eligible due to new construction or vacant parcel. The owners of 1,177 units have yet to reply to our mailings or sign up for the program. Approximately 683 units are in the process of finalizing paperwork, plans are being designed or are awaiting construction award.

Through November 6,562 units have been soundproofed or are in the process of completing the soundproofing installation. To date, there have been 123 construction contracts awarded totaling approximately $132 million.

Project Budget: $160 million **Project Completion Date:** 2012

Project Spent to date: $139 million **Project Percent complete:** 85%

PROJECT COMPLETION PLAN

LAWA is in the process of notifying (via certified mail) all non-responsive homeowners of the program completion. LAWA anticipates construction will be completed by 2012 for those homeowners who have signed installation agreements.

APPENDIX B

THIRD PARTY MONITOR SEMI-ANNUAL REPORT DATED DECEMBER 31, 2009

Independent Third Party Monitor Semiannual Report

Los Angeles International Airport
Crossfield Taxiway Project (CFTP)

Prepared by:

Clean Fuel Connection, Inc.

December 31, 2009

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APPENDICES

SECTION 1 EXECUTIVE SUMMARY

This Semiannual Report was prepared by Clean Fuel Connection Inc. (CFCI), Independent Third Party Monitor for LAX Master Plan Projects, and is submitted in accordance with Section X.F.8 of the Community Benefits Agreement (CBA). This is the first Semiannual Report for the Crossfield Taxiway Project (CFTP). CFCI commenced independent monitoring on May 28, 2009. This report covers the period commencing May 28 2009 and ending December 31, 2009.

CFCI has been monitoring implementation of Section X.F. of the CBA. As the Third Party Monitor, CFCI's role is to observe, document and report on the operations of the construction-related diesel equipment on the CFTP program. Our role is not enforcement of the provisions of the CBA, but rather independent verification and documentation of compliance.

Tasks Accomplished

CFCI's efforts in monitoring, documenting, and reporting on the status of CBA Section X.F as it pertains to the Crossfield Taxiway Project included:

- Development of a Master Equipment database to include all known equipment utilized in the CFTP, including equipment operating under a 20-day exemption and equipment granted immediate short term airfield access for reasons of expediency;
- Field verification of the equipment database and reconciliation to LAWA project management vehicle records;
- Annual reassessment of available emission control devices in accordance with CBA Section X.F.9, and evaluation of available diesel emission control devices applicable diesel equipment operating on the CFTP;
- Examination and verification of requests for exemptions from installation of Best Available Control Technology (BACT);
- Examination of fuel purchase records to verify that low sulfur diesel is being used;
- Monitoring of installed emission control devices on CFTP construction equipment, including physical inspections to ensure emission control devices are properly installed and functioning;
- On-airfield monitoring of CFTP construction equipment operations enforcement, including equipment idling restrictions, fugitive dust emissions, and equipment in an apparent state of disrepair.

Findings of the Third Party Monitor

Overall, the CFTP project was found to be in substantial compliance with all provisions of the CBA Section X.F. Ninety eight (98) pieces of diesel construction equipment proposed for operation on the Crossfield Taxiway Project was independently assessed, of which:

- Thirty (30) pieces of construction equipment were determined by LAWA to require a Best Available Control Technology (BACT) device;
  - Twenty-two (22) pieces of construction equipment have been retrofitted to date with a CARB-Level 3 verified diesel emission control system (VDECS);
  - Eight (8) additional pieces have VDECS installation pending;
- Eight pieces of equipment have been granted a "safety exemption" due to the potential for driver visibility to be obscured by a VDECS;
- Twenty-four are operating under a "20-Day Exemption" status;
- The balance of diesel equipment has been determined to be incompatible with a VDECS due to the following:
  - Equipment engine is equipped with exhaust gas recirculation (EGR), which is incompatible with diesel emission control devices verified at the time CFTP construction commenced;
  - The equipment is licensed as an "on-road vehicle" with the California Department of Motor Vehicles;
  - The equipment uses a small displacement diesel engine with a horsepower rating of 50 hp or less.

The Third Party Monitor identified five (5) pieces of diesel construction equipment that appear compatible with a Level 3 verified diesel emission control system (VDECS) but were not identified by LAWA as requiring a BACT retrofit:

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
980-3	R&L Brosamer, Inc.	Wheel Loader	Caterpillar	2004
623-10	R&L Brosamer, Inc.	Scraper	Caterpillar	1997
LP-008	Royal Electric Co.	Light Plant	Wacker	2002
LP-009	Royal Electric Co.	Light Plant	Wacker	2002
LP-010	Royal Electric Co.	Light Plant	Wacker	2002

Three additional vehicles used during Crossfield Taxiway construction appear to be compatible with a Level 3 VDECS; however, additional investigation is required to make a final determination as to VDECS compatibility:

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
AT-1	Fine Grade Equipment	Articulated Dump Truck	Terex	2007
AT-2	Fine Grade Equipment	Articulated Dump Truck	Terex	2007
AT-3	Fine Grade Equipment	Articulated Dump Truck	Terex	2007

The Third Party Monitor also identified VDECS that are compatible with equipment equipped with small displacement diesel engines less than 50 hp, as well as VDECS that are compatible with on-road certified diesel vehicles. The Third Party monitor did not interpret Section X.F.1 of the Community Benefits Agreement to exclude these classes of diesel equipment from the BACT requirements. Overall, the Independent Third Party Monitor found the CFTP project in substantial compliance with all provisions of the CBA Section X.F.

SECTION 2 INTRODUCTION

This Semiannual Report was prepared by Clean Fuel Connection Inc. (CFCI), Independent Third Party Monitor for LAX Master Plan Projects, and is submitted in accordance with Section X.F.8 of the Community Benefits Agreement (CBA). This is the first Semiannual Report for the Crossfield Taxiway Project (CFTP). CFCI commenced independent monitoring on May 28, 2009. This report covers the period commencing May 28 2009 and ending December 31, 2009.

CFCI has been monitoring implementation of Section X.F. of the CBA. As the Third Party Monitor, CFCI's role is to observe, document and report on the operations of the construction-related diesel equipment on the CFTP program. Our role is not enforcement of the provisions of the CBA, but rather independent verification and documentation of compliance.

CFCI's efforts to date in monitoring, documenting, and reporting on the status of CBA Section X.F as it pertains to the Crossfield Taxiway Project include:

- Physical inventories of diesel equipment operating on the CFTP or located in contractor equipment maintenance and staging areas. These inventories were conducted in August 2009 and again in December 2009;
- Development of a Master Equipment database to include all known equipment utilized in the CFTP, including equipment operating under a 20-day exemption and equipment granted immediate short term airfield access for reasons of expediency;
- Field verification of the equipment database and reconciliation to LAWA project management vehicle records;
- Annual reassessment of available emission control devices in accordance with CBA Section X.F.9, and evaluation of available diesel emission control devices applicable diesel equipment operating on the CFTP;
- Examination and verification of requests for exemptions from installation of Best Available Control Technology (BACT);
- Examination of fuel purchase records to verify that low sulfur diesel is being used;
- Monitoring of installed emission control devices on CFTP construction equipment, including physical inspections to ensure emission control devices are properly installed and functioning;

- On-airfield monitoring of CFTP construction equipment operations enforcement, including equipment idling restrictions, fugitive dust emissions, and equipment in an apparent state of disrepair.

The purpose of this Semiannual Report is to document CFCI's efforts as they relate to the accomplishments described above, as well as enumerate the degree to which CFTP construction activities conform to all requirements incorporated in CBA Section X.F.

The CFCI project staff is comprised of the following individuals:

- *Enid Joffe*, founder and owner of Clean Fuel Connection, Inc.;
- *Ray Gorski*, lead air quality engineer on the CFTP project and principal field engineer;
- *Lauren Dunlap*, air quality engineer and principal analyst in determining compatibility of emission control devices and calculations of emission reductions for VDECS installed on CFTP equipment.

The implementation methodology employed during monitoring of the South Airfield Improvement Program (SAIP) was also used for the Crossfield Taxiway Project. This methodology is briefly summarized as follows:

- *Fully Understand Program Requirements and Customer Expectations* – In the course of implementing our work scope as the Independent Third Party Monitor, CFCI coordinated with the Chief Airports Engineer, contracts manager, and project environmental staff relative to program requirements and performance expectations;
- *Define Roles and Responsibilities* - The CFCI Team has clearly defined its role as "monitor, document and report" as an independent third party, not representing any individual stakeholder. The CFCI team members have many years experience working with local governments and community organizations on complex issues and brings these skills to our role as Third Party Monitor;
- *Establish an Appropriate On-Site Presence* – CFCI is regularly onsite at the CFTP to coordinate with members of the environmental compliance staff and monitor equipment with installed emission control devices, while ensuring that our work does not interfere with any CFTP construction operations and that CFCI team members follow all required safety and security precautions;

- *Ensure Monitoring Processes, Tracking Tools, and Documentation Procedures are In Place* – CFCI created independent databases of equipment and exemptions granted fuel receipts, verified emission control devices and enforcement actions/public complaints and reconciled those to the records of the LAWA CFTP construction manager;
- *Employ Disciplined Project Management Practices and Procedures* – CFCI, in their role as prime contractor and Project Manager, strives to ensure that project management functions for this work effort are conducted efficiently and comprehensively using industry best practices and government-accepted accounting procedures;
- *Update Available Technology Database* — CFCI continues to stay abreast of new developments in diesel emission control technologies including newly verified devices or de-listed devices. In conformance with CBA Section X.F.9.a., CFCI conducted a reassessment of available diesel emission control devices.

Finally, CFCI continues to compile a list of "lessons learned" as it relates to the responsibilities of the Third Party Monitor. A summary is included at the conclusion of this Semiannual Report.

SECTION 3 TASK-BY-TASK STATUS REPORT

The following section documents CFCI's work over the past seven months on each of the specific tasks in the Third Party Monitor Scope of Work.

Task 1: Best Available Emissions Control Devices Required

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter on the order of 10 microns[1] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors. Section X.F.1 of the CBA applies the requirement to outfit all diesel equipment, including off-road vehicles such as heavy-duty construction equipment, as well as on-road vehicles such as trucks, street sweepers, etc. The requirement also affects non-mobile diesel sources, such as portable generators, air compressors, and light towers. Thus, the requirement to retrofit diesel equipment used in LAX Master Plan construction projects encompasses every piece of diesel equipment, irrespective of its status as on-road mobile, off-road mobile, or stationary.

Section X.F.1 requires that the diesel emission control systems used to retrofit diesel equipment be verified or certified for use on on-road or off-road vehicles or engines by the California Air Resources Board (CARB), or verified by the U.S. Environmental Protection Agency (EPA) for use on on-road or off-road vehicles or engines. Section X.F.1 further allows CARB and EPA-verified "mobile source" devices to be applied to "stationary sources", such as generator engines, and allows technologies verified for "on-road" engines to be applied to "off-road" equipment. Thus, the overall context of Section X.F.1 is very broad and allows maximum flexibility in matching diesel emission control systems with diesel equipment used in Master Plan construction.

The role and responsibilities of the Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

[1] One micron equals $1x10^{-6}$ meter or 0.000001 meter.

- Task 1.1 - Contractor shall develop a monitoring process and database to track each piece of diesel equipment used for construction, including documentation procedures and reporting requirements;
- Task 1.2 – Contractor shall monitor, document, and report independently from LAWA, each construction firm's compliance as it relates to outfitting their diesel construction equipment with the best available emissions control devices available.

The following are the results and findings of the Third Party Monitor as they relate to Tasks 1.1 and 1.2 for the period commencing in June 1, 2009 through December 31, 2009.

Task 1.1 – Monitoring Process, Database Development, and Documentation:

CFCI continued using the equipment monitoring and documentation process initially developed for the SAIP. To briefly summarize, key elements of the monitoring process include:

- *Review of available documentation* – The principal source of technical information for each vehicle proposed for operation on the CFTP are the equipment reports submitted by the construction contractor for review by LAWA project management environmental staff. These reports document whether or not a compatible verified diesel emission control system (VDECS) is available for a given piece of diesel equipment;
- *Incorporation of all available data into Master Equipment List (Database)* – All relevant information derived from review of the equipment reports or field inspections is documented in the master equipment database. This database is the principal tool for performing independent verification and validation of the information contained in the equipment reports reviewed and approved by LAWA;
- *Identification and documentation of missing, inconsistent, or inaccurate data* – The database notes which pieces of information are either missing or whose accuracy is suspect;
- *Request for Additional Information and/or Clarification* – Missing data or data that require validation are compiled, and a request for clarification is issued by the Independent Third Party Monitor to LAWA project management staff;
- *Field Inspections* – In specific cases, the Independent Third Party Monitor will request permission to conduct a field inspection of the specific piece of equipment under scrutiny;

- *Task 1.2 Independent Verification and Validation* – For each piece of diesel construction equipment included in the database, an independent determination of whether or not a compatible VDECS device is available is conducted;
- *Documentation of Analysis Results* – For each piece of diesel equipment assessed, the availability and compatibility of a VDECS is recorded in the database;
- *Data Reconciliation* – The Third Party Monitor reconciles information contained in the database with the reports maintained by LAWA project management and the construction manager's staff.

The Database Development element of Task 1.1 was conducted in accordance with a single objective – record as much data and supporting information as possible to fully characterize each piece of equipment proposed for operation on the CFTP. Thus, to ensure completeness, the database incorporates the following data fields:

- *Date of Equipment Report Approval* – Each piece of diesel equipment for potential use on the CFTP is submitted by the construction contractor for review by LAWA project management and the construction manager's staff. The data that the review process has been completed and the equipment approved for airfield operation is recorded in the database;
- *Equipment ID Number* – Most equipment operating on the CFTP is marked with a unique identifying number by the equipment owner. It has been the practice of the Independent Third Party Monitor and LAWA project management staff to use this unique ID when describing, discussing or documenting a specific piece of equipment. All equipment is tracked and monitored relative to this ID number;
- *Owner* – the owner of the piece of diesel equipment, such as prime contractor R&L Brosamer;
- *Equipment Category* – A brief description for the type of diesel equipment, such as "articulated dump truck";
- *Equipment Manufacturer* – The manufacturer of the piece of equipment, usually the equipment chassis. In most cases the manufacturer of the chassis is different from the engine manufacturer;

- *Equipment Model Year* – The year of manufacture of the equipment or vehicle, usually referring to the chassis and vehicle body. It should be noted that it is common for the equipment chassis or body and diesel engine to be different model years;
- *Equipment Model Number* – The number or other descriptive terminology used by the equipment manufacturer in marketing the vehicle, oftentimes used to differentiate similar products;
- *Equipment Serial Number* – This differs from the Equipment ID number described above. The equipment serial number is the vehicle chassis or body identification number assigned by the equipment manufacturer;
- *Engine #1 Manufacturer* – The manufacturer of the main diesel engine used in the equipment. In some cases, most notably off-road heavy-duty scrapers and on-road street sweepers, the equipment has two diesel engines. The first and second engines are designated #1 and #2, respectively, in the database;
- *Engine #1 Model* – The number or other descriptive terminology used by the manufacturer in engine marketing, used to differentiate similar products;
- *Engine #1 Model Year* – The year of manufacture of the diesel engine, diesel emission control devices are often verified for a specific engine model year;
- *Engine #1 Serial Number* – A unique identification number or alphanumeric code assigned by the engine manufacturer;
- *Engine #1 Displacement* – The total volumetric size of the engine's combustion cylinders, usually described as "cubic inches" or "liters". Displacement expressed in cubic inches is calculated by multiplying the number of cylinders by the piston area (square inches) and by the length of the piston stroke (inches). The commonly used metric designation of "liters" is the total engine displaced volume measured in cubic centimeters (1 liter = 1,000 cubic centimeters);
- *Engine #1 Horsepower* – The rated horsepower of the engine by the engine manufacturer;
- *Engine #1 Engine Family* – Engine Family is a descriptive designation given by CARB to a diesel engine upon certification. It is a code, similar to an automobile Vehicle Identification Number, that identifies the engine model year, engine manufacturer, the engine's displacement, on-road or off-road applicability, emissions equipment included during certification testing. This piece of data, along with engine manufacturer and engine model

year, is essential to determine conclusively if a VDECS is compatible with the engine undergoing assessment. With practice, one can quickly ascertain a substantial amount of information about an engine by deciphering the engine family designation;

- *Engine #2 Data* – Similar to the above for Engine #1, data are documented for the second diesel engine on a piece of equipment. In the case of heavy-duty earth moving scrapers, the two engines are front and rear; in the case of street sweepers, the second engine is an auxiliary engine that operates the vehicle's rotary brooms and vacuum system.

For each piece of diesel equipment, the database also documents:

- Whether that piece of equipment has or is currently operated, on the CFTP. For equipment that has been removed, the date of removal is recorded if known;
- For equipment operating under a 20-day exemption, the date the equipment was placed on the airfield and the date removed. For more discussion on 20-day exemption status, please refer to the Task 4 Section of this report;
- Each piece of equipment's compatibility with both off-road and on-road Verified Diesel Emission Control Systems available at the time the equipment was originally submitted by the owner for review by project management staff. It should be noted that this database also includes devices that have been recently verified by CARB and devices recently granted a conditional verification by CARB. Please refer to the Task 8, "Reassessments" Section of this report for a thorough discussion of equipment compatibility with these additional devices.

To date, 98 pieces of diesel equipment have been assessed and documented in the Equipment Database. These include the Master Equipment Database, as well as sub-elements that document equipment compatibility with available VDECS devices.

Task 1.2 – Independent Monitoring, Documentation, & Reporting of Compliance with CBA Section X.F.1; Best Available Emission Control Devices Required:

The primary objective of this Task is to independently verify and validate the findings of LAWA project management and contractor staff as it relates to the availability and compatibility of diesel emission control systems for diesel equipment operating on the CFTP. Using the methodology described under Task 1.1, CFCI staff regularly coordinates with LAWA project

management, requesting and receiving access to files and records for diesel equipment operating or proposed for operation on the CFTP.

Only CARB and/or EPA-verified devices available at the commencement of CFTP construction activities were considered when assessing compliance with CBA Section X.F.1. This is based upon the following language included in the CBA:

- The CBA stipulates in Section X.F.9.a. "Reassessments of Emission Control Devices", that *"the process of emission control technology review shall include any new relevant requirements or regulations promulgated by CARB or EPA. Results from the reassessments shall not be applied retroactively"*;
- CBA Section X.F.9.b. states under "Application of New Requirements", that *"any new designations of emission control devices as best available shall apply only to projects that start after the devices are verified or certified for use by CARB or EPA, or approved for use as part of a Demonstration Project"*.

At the time of commencement of CFTP construction activities, multiple diesel emission control devices were verified by CARB for off-road use. CARB assigns a designation to each diesel emission control device as a function of its effectiveness in reducing diesel particulate matter (PM) emissions. This is referred to as the "Verification Level" of the device; CARB currently recognizes three verification levels, as follows:

- Level 1 – greater than or equal to 25% reduction of diesel PM;
- Level 2 – greater than or equal to 50% reduction in diesel PM;
- Level 3 – greater than or equal to 85% reduction in diesel PM.

As shown above, CARB Level 3 offers the highest level of diesel pollution reduction. In accordance with the CBA, the "Best Available Control Technology" (BACT) is Level 3 verification. The following is a brief summary Level 3 verified diesel emission control systems available at the start of Crossfield Taxiway construction activities. Additional information is provided on specific devices in subsequent Sections of this Semiannual Report:

Engine Control Systems Combifilter

The ARB has verified Engine Control Systems Combifilter for 2007 or older model year diesel engines used in off-road applications operating on standard ultra low sulfur diesel fuel or bio-diesel (B20). The Combifilter system employs an actively regenerated uncatalyzed diesel

particulate filter to achieve an 85 percent reduction in particulate matter emissions, qualifying it for Level 3 verification;

Engine Control Systems Purifilter

The ARB has conditionally verified the Engine Control Systems Purifilter for equipment powered by certain off-road diesel engines with model years between 1996 and 2008. Approved engines are certified to a particulate matter emission level equal to or less than 0.2 grams per brake horsepower-hour, are rated to at least 50 horsepower and at most 750 horsepower, and are not equipped with exhaust gas recirculation systems;

HUSS

The Huss FS-MK filter is verified as a Level 3 Plus diesel emission control system for use with most on-road and off-road diesel engines. The FS-MK series of filters uses a silicon carbide wall-flow filter with a fuel burner for regeneration to achieve an 85 percent reduction in particulate matter emissions. In addition, the HUSS FS-MK filter may also be applied to off-road engines using diesel fuel that contains as much as 20 percent biodiesel.

For meeting CBA compliance on the Crossfield Taxiway Project, the construction contractors selected the HUSS Umwelttechnik FS-MK diesel particulate filter[2]. This is a Level 3 diesel emission control system verified for use with all on-road and off-road diesel engines through the 2006 model year, except those equipped with either diesel oxidation catalysts or exhaust gas recirculation systems. The FS-MK series of filters use a silicon carbide wall-flow filter with a fuel burner for regeneration to achieve a greater than 85 percent reduction in particulate matter emissions. The specific conditions for which the FS-MK has been approved is included in the two (2) Executive Orders issued by CARB for on-road and off-road engines, respectively. This system was initially verified on November 13, 2006 and re-verified on October 8, 2009. The following are links to the current CARB Executive Order:

- Off-Road Engine Executive Order: www.arb.ca.gov/diesel/verdev/pdf/executive_orders/de-06-007-04.pdf

The HUSS MK-System diesel exhaust particulate filter is equipped with a “fuel burner” regeneration system. The device is constructed of a stainless steel cylindrical shock-proof casing enclosing the silicon carbide monolith particulate filter. During engine operation, the

[2] www.huss-umwelt.com/en/index.html

exhaust gases are fed through the filter medium. There, more than 99% of particulate matter (based on particle mass) is retained in the filter core.

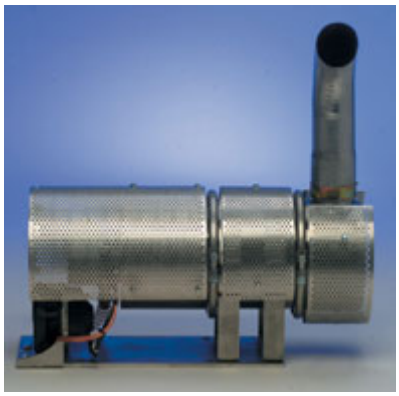

Figure 1-1: HUSS MK-System Level 3 Diesel Particulate Filter

Over a period of several hours of engine operation, particulate matter accumulates inside the filter housing. As the filter becomes loaded with particulate, the exhaust back pressure increases. If allowed to continue, the increasing exhaust back pressure would negatively impact the efficient operation of the diesel engine. Therefore, the trapped particulate must be regenerated. The HUSS MK particulate filter is regenerated by means of the fuel burner. The oxygen required is supplied via an integral blower. A small quantity of diesel fuel from the vehicle's fuel tank, typically on the order of 0.02 to 0.2 gallon, is used as the fuel for the regeneration system. The ensuing combustion vaporizes diesel soot particles, converting the toxic air contaminant into carbon monoxide (CO)[3], carbon dioxide (CO_2) and water vapor.

The regeneration process typically requires approximately 20 to 30 minutes, at which time the particulate filter is free from accumulated soot and ready for continued operation. Monitoring of exhaust system backpressure is performed using a graphic display mounted in the equipment cab and visible to the equipment operator. As the VDECS accumulates trapped particulate, the graphic display indicates when regeneration will be required. Regeneration is then initiated by pressing a button located in the operator cab. Activation of the regeneration system requires the equipment to be turned off, although the operator may remain inside the equipment cab.

[3] CARB verification ensures that the increase in CO does not exceed engine CO emission standards.

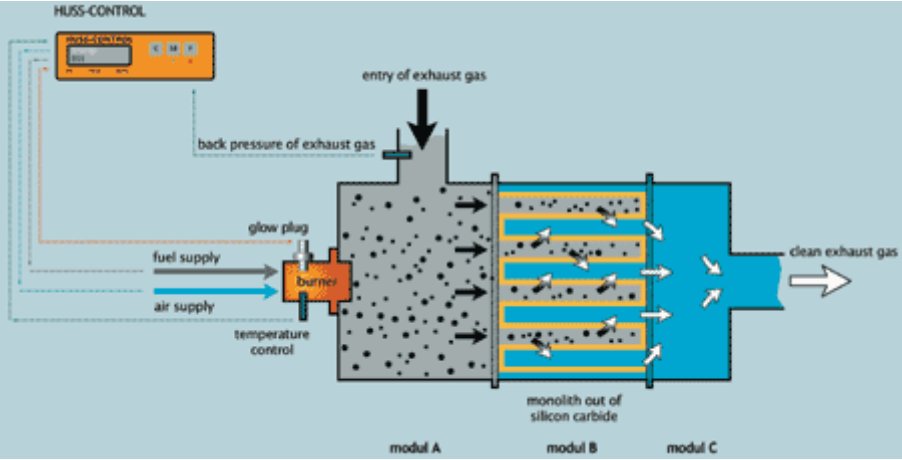

Figure 1-2: HUSS MK-System Schematic

Task 1.2 Results

Each of the 98 pieces of diesel equipment submitted for LAWA project management review were independently assessed to determine their compatibility with a CARB and/or EPA-verified diesel emission control system.

Of the 98 pieces of equipment assessed, eight (8) were granted an exemption on the basis of safety due to potential equipment operator visibility concerns. The issue of operator visibility has been recently investigated by the Occupational Safety and Health Standards Board (Standards Board) and enforced by the Division of Occupational Safety and Health (Cal/OSHA). A summary of the issues and current CARB guidance is included in this Semiannual Report.

The equipment granted a safety exemption is listed below in Table 1-1.

Table 1-1: CFTP Equipment Granted a Safety Exemption

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
30-404	R&L Brosamer, Inc.	Motorgrader	Caterpillar	2004
30-301	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1995
30-401	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1983
24-106	R&L Brosamer, Inc.	Drive Over Unloader		
14-11	R&L Brosamer, Inc.	Motor Grader	Caterpillar	2001
14-010	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1997
16-27	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1989
16-24	R&L Brosamer, Inc.	Motorgrader	Caterpillar	

In addition, twenty-four (24) pieces of equipment were granted an exemption on the basis that the equipment would not be used more than 20 days in a given calendar year. This exemption category is discussed further in Section 4 of this Semiannual Report.

The balance of diesel equipment proposed for operation on the Crossfield Taxiway Project was independently assessed to determine its compatibility with a verified diesel emission control system. Of the 66 remaining pieces of diesel equipment, 35 pieces were deemed compatible with a Level 3 verified diesel emission control system (VDECS).

Of the 35 pieces identified as being compatible with an available Level 3 VDECS, 30 were identified by LAWA contractors as being compatible. Of these 30 pieces of equipment, twenty two (22) pieces have been retrofitted with the HUSS MK system. Eight (8) pieces of equipment have installations pending; this equipment cannot be used on the CFTP until it is retrofitted, unless it is granted an exemption due to safety concerns or the contractor agrees to the terms of the 20-day exemption waiver. CFCI, in performing our independent assessment, identified an additional five (5) pieces of equipment proposed for operation on the CFTP for which a VDECS has not been identified by LAWA contractor staff. According to CARB verification documentation, the five pieces of diesel equipment shown below in Table 1-2 are compatible with the HUSS MK-Systems Level 3 VDECS:

Table 1-2: Diesel Equipment for which a VDECS was Not Identified

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
980-3	R&L Brosamer, Inc.	Wheel Loader	Caterpillar	2004
623-10	R&L Brosamer, Inc.	Scraper	Caterpillar	1997
LP-008	Royal Electric Co.	Light Plant	Wacker	2002
LP-009	Royal Electric Co.	Light Plant	Wacker	2002
LP-010	Royal Electric Co.	Light Plant	Wacker	2002

In addition, the Third Party Monitor has identified an additional three (3) pieces of equipment that require additional coordination with LAWA project management staff to determine VDECS compatibility. These three pieces of equipment are shown below in Table 1-3:

Table 1-3: Equipment Requiring Additional Investigation

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
AT-1	Fine Grade Equipment	Articulated Dump Truck	Terex	2007
AT-2	Fine Grade Equipment	Articulated Dump Truck	Terex	2007
AT-3	Fine Grade Equipment	Articulated Dump Truck	Terex	2007

Figure 1-3: Further Investigation is Required to Determine VDECS Compatibility for this Vehicle

The issue with the equipment shown above in Table 1-3 is whether or not the vehicle engine is equipped with Exhaust Gas Recirculation (EGR), a NO_x control strategy. Engines equipped with EGR are not compatible with current VDECS technology. The CARB engine family designations provided by the construction contractor, however, suggest that these vehicles may not be EGR equipped and thus should be retrofitted in accordance with the CBA.

The remaining 28 pieces of diesel equipment were assessed and found to not be compatible with a VDECS at the time construction on the CFTP commenced. Recently verified VDECS compatible with this diesel equipment is discussed further in Section 3 Task 8 of this Report.

Task 2: Demonstration Projects

Section X.F.2 of the CBA states that LAWA may allow construction-related diesel equipment to be outfitted with new emission control systems that are not CARB verified or EPA certified for use for on-road or off-road vehicles or engines. Such projects will be designated by LAWA as "Demonstration Projects". The roles and responsibilities of the Independent Third Party Monitor as they relate to Demonstration Projects is set forth in Task 2 of the contract and includes the following two primary subtasks:

- Task 2.1 – The Third Party Monitor shall perform a technical evaluation of the proposed demonstration technology and provide written findings to the Coalition Representative and LAWA. The Third Party Monitor shall also assist with the implementation of a Demonstration Project, including identifying suitable emission control devices and Demonstration Project funding sources;
- Task 2.2 – Upon acceptance by LAWA, the Third Party Monitor shall monitor, document, and report independently from LAWA, compliance of the demonstration equipment with all defined Demonstration Project requirements, including but not limited to the pollution reduction requirements specified in Section X.F.3 of the CBA.

No demonstration projects have been conducted during the initial seven months of the Crossfield Taxiway Project.

Task 3: Emission Reduction Standard

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter which is on the order of 10 microns[4] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors. This section also states that under no circumstance shall an emission reduction device or strategy used on the LAX Master Plan Program construction site increase the emission of any pollutant above that which is the standard for that engine.

The role and responsibilities of the Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

- Task 3.1 - Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1. as it relates to meeting or exceeding Level 2 diesel emission reductions for a similar sized engine.;
- Task 3.2 – Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1 to ensure its emission reduction device or strategy does not result in an increase of any pollutant above that which is standard for that engine;
- Task 3.3 – Contractor shall monitor, document and report on emission reductions of NO_x, ROG, PM and CO achieved through the use of best available control technology.

The following are the results and findings of the Third Party Monitor as it relates to Tasks 3.1, 3.2 and 3.3:

Task 3.1 - Monitor, document, and report equipment compliance with Level 2 requirement.

As summarized above in Task 1, the Third Party Monitor compiled a database inventory of CFTP equipment (Appendix A - submitted under separate cover). This database was continually updated with new information collected from LAWA project management staff on behalf of the construction contractors (R&L Brosamer, Inc. and Royal Electric) or visual

[4] One micron equals $1x10^{-6}$ meter or 0.000001 meter.

inspection by CFCI. As part of this inventory, the Task 1 effort included an equipment-by-equipment review for applicability of approved BACT. Specifically, the equipment listed in this master database was compared against all available VDECS, with first priority given to Level 3 diesel emission reductions.

Forty three (43) units were determined to be eligible for VDECS retrofit. Thirty five (35) pieces of construction equipment have been retrofitted or are scheduled to be retrofit.

Not all equipment proposed for operation on the CFTP is necessarily used – contractors provide a list of potential needs prior to the start of construction activities. Typically, a subset of this proposed equipment is actually used in construction activities. Also, not all equipment resides on the airfield during the entire project duration; equipment is moved on and off the airfield as construction demands dictate.

As of December 2009, approximately 44 pieces of diesel construction equipment is supporting the CFTP. Of this number, six (6) vehicles are equipped with a VDECS and one (1) piece of equipment has a pending installation. The six retrofitted vehicles are equipped with the HUSS MK system VDECS. The HUSS system has also been specified for the roller compactor whose device installation is pending.

Task 3.2 – Ensure emission reduction devices/strategy does not result in an increase of any pollutant above that which is standard for that engine.

The U.S. EPA and ARB verification procedures are designed to ensure that no measurable increase on other pollutant emissions results from installation of the approved VDECS. Furthermore, the verification letters for the ECS Purifilter provide no indication that the use of this device increases any emissions in an amount to exceed that which is standard for that engine. One issue that should be noted is that the ARB verification procedures include a NO_2 limit requirement. Specifically, NO_2 may not increase more than 20 percent as a result of the installation and operation of the device[5]. The verification letter available from CARB's VDECS verification database indicates that the HUSS system complies with the 20 percent NO_2 limit. The Third Party Monitor has verified that as of October 8, 2009, the HUSS system still complies with all CARB verification requirements.

Task 3.3 –Contractor shall monitor, document and report on emission reductions of NO_x, ROG, PM and CO achieved through the use of best available control technology.

[5] Title 13 CCR section 2706(a)

In its capacity as Interim Third Party Monitor, CFCI is currently evaluating the emission reduction benefits of the following efforts implemented at the Crossfield Taxiway Project:

- The application of best available control technology (BACT) on eligible CFTP equipment;
- On-site concrete recycling, which eliminated the need to truck the original runway material to the landfill 40 miles away;
- On-site clean soil storage, which eliminates the need to truck excavated soil to a landfill or other disposal site 40 miles away;
- The implementation and enforcement of idle limits for both on- and off-road vehicles operating on the CFTP;
- The avoidance of air pollutant emissions from prompt repair of malfunctioning equipment (i.e., equipment with visible smoke).

The input data to calculate the air quality benefits of the air pollution mitigation strategies listed above is being collected by both CFCI and LAWA project management. The air quality benefits will be quantified once a representative body of data has been collected. It is anticipated that many of the benefits will be documented in the second CFTP Semiannual Report that will be published in July 2010.

Task 4: Exemptions

Task 1 of the Third Party Monitor Scope of Work focuses in part on determining if a verified diesel emission control system was available and compatible with a piece of diesel equipment proposed for use on the CFTP. CBA Section X.F.4 states that the requirement to retrofit equipment with a verified diesel emission control system is not applicable to construction-related diesel equipment *"for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emission of pollutants as required by CBA Sections X.F.1-3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for that vehicle".*

CBA Section X.F.4 also relieves the equipment operator from the requirements of CBA Sections X.F.1 through X.F.3 for *"construction-related diesel equipment used on LAX Master Plan Program construction sites for fewer than twenty (20) days per calendar year"*.

The role and responsibilities of the Independent Third Party Monitor as it pertains to CBA Section X.F.4 include the following Tasks:

- Verify that application for an exemption under CBA Section X.F.4. is justified on the basis of a) physical incompatibility of the best available emission control device with the piece of construction-related equipment seeking an exemption; b) unavailability of the best available emission control device with the piece of construction-related equipment seeking an exemption;
- Verify that construction-related diesel equipment granted an exemption pursuant to CBA Section X.F.4. (ii) does not exceed twenty (20) days of use on LAX Master Plan Program construction sites per calendar year.

The Third Party Monitor identified five (5) areas in which construction-related diesel equipment was granted exempt status by LAWA. These include the following:

1. Exemptions granted on the basis of unavailability of a best available VDECS in accordance with CBA Section X.F.4 (i) for a specific piece of diesel equipment;
2. Exemptions granted on the basis of physical incompatibility of a VDECS with a specific piece of diesel construction equipment, even though a VDECS is available for and compatible with that equipment's diesel engine;
3. "20-day" exemptions granted in accordance with CBA Section X.F.4 (ii);

4. "On-Road" vehicle exemptions;

5. Small displacement engine exemptions.

Exemptions Granted Due to Unavailability of a Compatible VDECS

The Task 1 Section of this report discusses the findings of the Independent Third Party Monitor as they relate to the availability of VDECS for each piece of construction-related equipment proposed for use on the CFTP. The provisions of the CBA have been interpreted to only require VDECS commercially available at the time of commencement of CFTP construction. Equipment proposed for operation on the CFTP was assessed for their compatibility with available VDECS. The results are shown in Table 4-1, below. Equipment in un-shaded cells was determined to not be compatible with a verified diesel emission control technology at the time CFTP construction commenced.

Table 4-1: Compatibility with Verified Diesel Control System – Shaded Cells are Compatible with a VDECS – Unshaded Cells are not Compatible with a VDECS

Equipment Number	Equipment Owner	Equipment Category
14-401	R&L Brosamer, Inc.	Hydraulic Track Excavator
13-610	R&L Brosamer, Inc.	Wheel Loader
14-402	R&L Brosamer, Inc.	Hydraulic Track Excavator
14-705	R&L Brosamer, Inc.	Hydraulic Track Excavator
14-403	R&L Brosamer, Inc.	Hydraulic Track Excavator
9-002	R&L Brosamer, Inc.	RT Hydraulic Crane
C-23	R&L Brosamer, Inc.	Roller Compactor
45-205	R&L Brosamer, Inc.	Smooth Drum Roller
13-101	R&L Brosamer, Inc.	R/T Forklift
980-2	R&L Brosamer, Inc.	Wheel Loader
980-3	R&L Brosamer, Inc.	Wheel Loader
623-8	R&L Brosamer, Inc.	Scraper
623-10	R&L Brosamer, Inc.	Scraper
762-3	R&L Brosamer, Inc.	Scraper
14-11	R&L Brosamer, Inc.	Motor Grader
14-010	R&L Brosamer, Inc.	Motor Grader
16-27	R&L Brosamer, Inc.	Motor Grader
210-3	R&L Brosamer, Inc.	Skip Loader
C-21	R&L Brosamer, Inc.	Compactor
D6-3	R&L Brosamer, Inc.	Track Dozer
824-1	R&L Brosamer, Inc.	Wheel Dozer
I-85	R&L Brosamer, Inc.	Water Truck
05-109	R&L Brosamer, Inc.	Water Truck

06-017	R&L Brosamer, Inc.	Mechanic Truck
06-018	R&L Brosamer, Inc.	Mechanic Truck
09-002	R&L Brosamer, Inc.	Crane
09-103	R&L Brosamer, Inc.	Crane
13-101	R&L Brosamer, Inc.	Forklift
13-105	R&L Brosamer, Inc.	Forklift
13-110	R&L Brosamer, Inc.	Forklift
13-111	R&L Brosamer, Inc.	Forklift
13-112	R&L Brosamer, Inc.	Forklift
13-117	R&L Brosamer, Inc.	Forklift
13-203	R&L Brosamer, Inc.	Loader
13-607	R&L Brosamer, Inc.	Loader
13-608	R&L Brosamer, Inc.	Loader
14-006	R&L Brosamer, Inc.	Excavator
14-103	R&L Brosamer, Inc.	Backhoe
14-107	R&L Brosamer, Inc.	Backhoe
14-108	R&L Brosamer, Inc.	Backhoe
16-304	R&L Brosamer, Inc.	Cure Machine Pump
20-007	R&L Brosamer, Inc.	Paver
20-009	R&L Brosamer, Inc.	Paver
22-101	R&L Brosamer, Inc.	Cure Machine
24-104	R&L Brosamer, Inc.	Concrete Placer
45-205	R&L Brosamer, Inc.	Compactor
58-022	R&L Brosamer, Inc.	Vacuum Trailer
TR-043	Royal Electric Co.	Backhoe
TR-042	Royal Electric Co.	Backhoe
TR-037	Royal Electric Co.	Skid Steer
VH-257	Royal Electric Co.	2/3 Yard Dump Truck
VH-261	Royal Electric Co.	Flatbed Truck
VH-259	Royal Electric Co.	Flatbed Truck
VH-215	Royal Electric Co.	5-Yard Dump Truck
AC-025	Royal Electric Co.	Air Compressor
AC-026	Royal Electric Co.	Air Compressor
LP-006	Royal Electric Co.	Light Plant
LP-007	Royal Electric Co.	Light Plant
LP-008	Royal Electric Co.	Light Plant
LP-009	Royal Electric Co.	Light Plant
LP-010	Royal Electric Co.	Light Plant
VH-170	Royal Electric Co.	Pickup
VH-211	Royal Electric Co.	Pickup
VH-242	Royal Electric Co.	Pickup
VH-254	Royal Electric Co.	Pickup
LB04U0520	JV Land Clearing Inc.	Excavator
AT-1	Fine Grade Equipment	Articulated Dump Truck
AT-2	Fine Grade Equipment	Articulated Dump Truck
AT-3	Fine Grade Equipment	Articulated Dump Truck

Incompatibility Exemptions

Task 1 of this report also documents vehicles granted exemption by LAWA for which a VDECS is available but deemed physically incompatible with the type of equipment. For example, all motor graders were exempted due to safety concerns. Due to the mounting location of the VDECS, it was determined that the device may obscure the equipment operator's field of vision. Equipment granted an exemption by LAWA due to safety concerns is listed in Table 4-2, below:

Table 4-2: CFTP Equipment Granted a Safety Exemption

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
30-404	R&L Brosamer, Inc.	Motorgrader	Caterpillar	2004
30-301	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1995
30-401	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1983
24-106	R&L Brosamer, Inc.	Drive Over Unloader		
14-11	R&L Brosamer, Inc.	Motor Grader	Caterpillar	2001
14-010	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1997
16-27	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1989
16-24	R&L Brosamer, Inc.	Motorgrader	Caterpillar	

Figure 4-1; Motor Graders are Exempted Due to Driver Visibility Safety Concerns

VDECS Installation and Equipment Operator Visibility – Retrofit Safety Exemptions

The off-road diesel regulation promulgated by the California Air Resources Board will require many fleets to install exhaust retrofits on their vehicles to reduce emissions. These retrofits often come in the form of large cylinders, which can block an operator's view if installed in an unsuitable location (such as in directly in front of a cab window). The Interim Visibility Policy is a joint agreement between the Air Resources Board (ARB) and the California Department of Industrial Relations Division of Occupational Safety and Health (Cal/OSHA) released on October 21, 2009. The Policy states that for the March 1, 2010, retrofit requirements for large fleets, vehicles will be exempt from retrofit requirements if they cannot be retrofit without impairing visibility (i.e. there is no location on the vehicle where a retrofit could be installed without creating visibility impairment to the front, sides, or rear). See Figure 4-1, below.

Fleets must consider the impact on visibility that would be created by installing a VDECS retrofit device. Manufacturers and installers are often able to identify suitable locations on a vehicle for a retrofit where the retrofit creates no visibility impairment. A description of how to assess equipment operator visibility impairment is available in CARB's Visibility Exemption Guide at: http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm

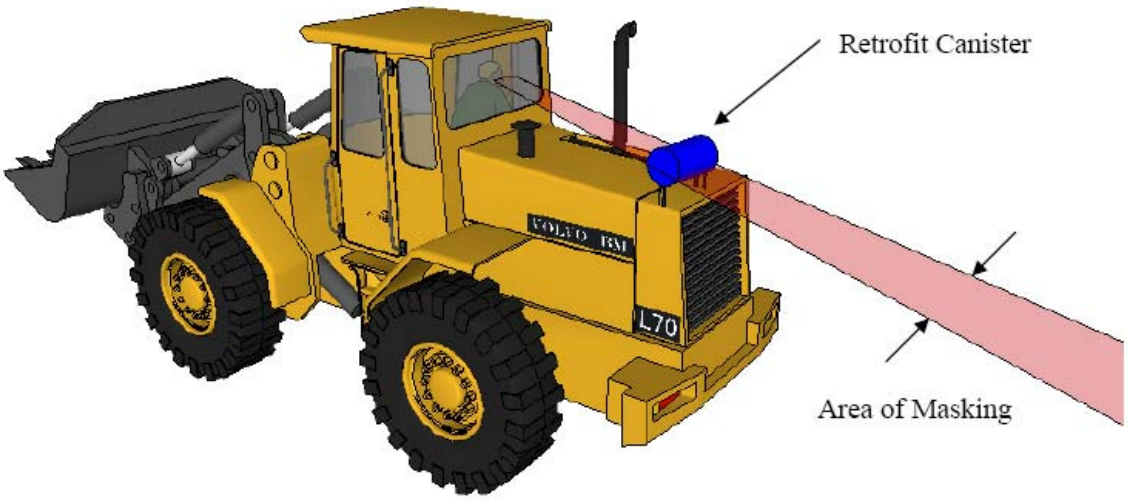

Figure 4-1: Example of Drive Visibility Impairment Due to Installation of VDECS

Safety exemptions have been granted by LAWA due to equipment operator visibility concerns for one class of equipment to date: motor graders whose engine exhaust pipe, if retrofitted, could potentially limit the operator's rear vision.

One other class of equipment has a safety exemption request pending at this time – this is for a driver over unloader. An example is shown below in Figure 4-3.

Figure 4-3: Example of a Drive-Over Unloader

"20-Day" Exemptions

In accordance with CBA Section X.F.4 (ii), construction-related diesel equipment used on a LAX Master Plan construction site fewer than 20 calendar days per calendar year can be exempted from the requirement to install a best available diesel emission control system. Section X.F.4 further requires that all exemptions granted under this provision be approved by LAWA and reported to the Coalition Representative as they occur.

The following equipment has or is currently operating on the CFTP under a 20-day exemption:

Table 4-3: Equipment Operating Under 20-Day Exemption

Equipment Number	Equipment Owner	Equipment Category
58-108	R&L Brosamer, Inc.	Sweeper
58-113	R&L Brosamer, Inc.	Sweeper
23-8	R&L Brosamer, Inc.	Scraper
23-10	R&L Brosamer, Inc.	Scraper
210-03	R&L Brosamer, Inc.	Skip Loader
6323-5	R&L Brosamer, Inc.	Scraper
354	R&L Brosamer, Inc.	Reclaimer

358	R&L Brosamer, Inc.	Reclaimer
A-1	Antigo	Concrete Breaker
N/A	Diversified Concrete	Concrete Cutting Machine
N/A	JV Land Clearing Inc.	Loader
350-1	Fine Grade Equipment	Excavator
FL-005	Royal Electric Co.	Forklift
TL-049	Royal Electric Co.	Vacuum Trailer
TN-012	Royal Electric Co.	Trencher
TR-033	Royal Electric Co.	Loader
VH-094	Royal Electric Co.	Water Truck
VH-106	Royal Electric Co.	Dump Truck
VH-119	Royal Electric Co.	Flatbed Truck
VH-134	Royal Electric Co.	Flatbed Truck
VH-213	Royal Electric Co.	Flatbed Truck
VH-215	Royal Electric Co.	Dump Truck
VH-216	Royal Electric Co.	Ford F550 Pickup
VH-224	Royal Electric Co.	Flatbed Truck

On-Road Vehicle Exemptions

A number of on-road vehicles owned and operated by the primary construction contractors, as well as independent truck drivers, have not gone through the process of seeking an exemption to the requirements of CBA Section X.F.1., nor are they operating under a formal 20-day exemption.

It has been LAWA's practice in these cases not to require an on-road VDECS to be installed on vehicles that work on the airfield construction site, whether or not the vehicle is licensed to operate on the highway. This practice appears in some cases contrary to Section X.F.1 of the CBA.

Small Displacement Engine Exemption

Similar to on-road vehicle exemptions, LAWA has also granted the construction contractors exemptions for certain types of off-road construction equipment.

Currently, small displacement diesel equipment with horsepower ratings less than 50 hp have been granted exemptions. This includes equipment such as light towers that use a stationary diesel generator to provide electricity for the high intensity lights and air compressors. In three specific cases, verified diesel emission control systems are available for this class of equipment – these include light towers equipped with engines deemed compatible with the HUSS MK-System Level 3 VDECS.

Task 5: Ultra Low Sulfur Diesel and Other Fuels

Section X.F.5 of the Community Benefits Agreement requires that all diesel equipment used for construction on LAX Master Plan Projects use only Ultra-Low Sulfur Diesel (ULSD) fuel containing 15 parts per million (ppm) of sulfur by weight or less. This requirement is in effect as long as adequate supplies are available in the Southern California region.

There are three tasks in the Scope of Work for the Third Party Monitor related Ultra Low Sulfur Diesel.

- Task 5.1 - Contractor shall monitor, document, and independently report on construction equipment related to LAX Master Plan Program construction as it relates to the use of ultra-low sulfur diesel fuel. Contractor will be provided all available fuel procurement records for construction equipment related to the LAX Master Plan Program;
- Task 5.2 – Contractor shall independently verify and report to LAWA and the Coalition Representative that adequate supplies of ULSD are or are not available in Southern California. For the purpose of this Task, "Southern California" is defined as the geographic region comprising Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties;
- Task 5.3 – Contactor shall independently verify and report to LAWA and the Coalition Representative that fuels substituted in lieu of ULSD do not result in greater emissions of fine PM or NO_x than that which would be produced by the use of ULSD at 15ppm or lower. Verification will be based on CARB certification or equivalent.

South Coast AQMD Rule 431.2, which took effect on June 1, 2006, requires diesel fuel refined and sold for on-road and off-road use within the jurisdiction of the AQMD to contain no more than 15 ppm sulfur by weight. This requirement was subsequently adopted on a statewide basis by the California Air Resources Board, effective September 1, 2006. Thus, ULSD is the only diesel fuel legally available for purchase within California.

To independently verify the sulfur content of the diesel fuel used by equipment operating on the CFTP, CFCI has requested fuel purchase records from the contractor and has examined the fuel receipts to ensure that only ULSD is being used. Fuel purchase records are clearly marked "ULSD"; thus, there is no ambiguity as to whether or not the fuel has the ultra-low sulfur content.

Task 6: Operational Requirements

Section X.F.6 of the CBA requires that Operational requirements be issued and enforced by LAWA as it pertains to: a) limitations of equipment engine idling; and b) maintenance of equipment engines.

The environmental requirements mandated by LAWA state that *"Contractor shall prohibit construction diesel vehicles or equipment from idling in excess of the idling restrictions as defined in the CARB Vehicle Idling Rule. The contractor shall advise drivers and operators of these requirements at the pre-construction orientation meeting, remind them on a daily basis, and post signs in appropriate places indicating the CARB Vehicle Idling Rule. Exemptions may be granted for safety and operational reasons, as defined in CARB or as approved by the Engineer. The contractor and subcontractors shall have policies and procedures in place for compliance with the Vehicle Idling Rule and a copy of such shall be submitted within 30 days of Notice to Proceed to the Engineer for approval"*.

In CFCI's capacity as Third Party Monitor, monitoring, documentation, and reporting of operational requirements was conducted in accordance with the following two Tasks:

- Task 6.1 – The Independent Third Party Monitor shall establish processes and procedures for determining whether a construction firm is complying with the operational requirements specified by LAWA. For the purpose of this Task, Operational Requirements include, but are not limited to, engine idling and engine maintenance requirements;
- Task 6.2 – The Independent Third Party Monitor shall monitor, document, and independently report to LAWA and the Coalition Representative on operational requirements issued and enforced by LAWA as they relate to limitations on idling and engine maintenance, at a minimum. Idling and engine maintenance records for construction equipment related to the LAX Master Plan Program will be provided to the Contractor by LAWA.

The following sections describe the process developed and implemented to track adherence to the operational requirements delineated in the CBA, as well as the independent findings of the Interim Third Party Monitor.

Process for Determining Compliance with Operational Requirements

The process to determine construction contractor compliance with the Operational Requirements set forth in the CBA has two distinct components:

1. Review by the Independent Third Party Monitor of applicable written procedures, monthly logs, and records documenting construction contractor compliance with Operational Requirements;
2. Onsite inspections conducted independently by the Third Party Monitor to confirm Operational Requirements are being implemented in accordance with CBA requirements.

In conducting reviews of construction contractor records, logs, and written procedures, requests for specific information and/or documents were submitted by the Third Party Monitor to LAWA's construction manager's staff. Requests for documentation were in turn submitted to the construction contractor by LAWA. This protocol was established and adhered to by all parties to ensure the reporting relationships between LAWA project management and the construction contractor were maintained and to prevent requests from the Third Party Monitor being construed by the construction contractor as contractual direction.

Once obtained by LAWA construction manager staff, the requested records, logs, and written procedures are provided to the Third Party Monitor for review. In most cases, photocopies are provided. In certain cases, such as equipment maintenance records, however, documents are retained at a location other than the on-site construction trailers; this requires that the documents be inspected at the offsite location. This is discussed further under Task 6.2, below.

Vehicle and Equipment Idling – The Environmental Requirements for the Crossfield Taxiway Project prohibit construction vehicles and equipment from excessive idling in accordance with the restrictions defined in the CARB Vehicle Idling Rule[6]. This Rule, more formally referred to as the *Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling*, is codified in Title 13 Section 2485 of the California Code of Regulations and took affect on February 1, 2005.

The law states that operators of diesel fueled commercial vehicles with a gross vehicle weight rating (GVWR) of 10,000 pounds or greater shall not idle their vehicle's primary diesel engine

[6] www.arb.ca.gov/toxics/idling/regtext.htm

for greater than five (5) minutes at any location. The law only applies to commercial vehicles that are or must be licensed for operation on the highway.

The "five minute rule" is waived under the following circumstances:

- Idling when the vehicle must remain motionless due to traffic conditions;
- Idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area (i.e., homes and schools);
- Idling to verify safe operating condition;
- Idling mandatory for testing, servicing, repairing, or diagnostic purposes (cleaning of commercial vehicles is not considered servicing);
- Idling when positioning or providing power for equipment that is performing work;
- Idling when operating defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency.

While the CARB Rule pertains only to "on-road" vehicles, it is important to note that LAWA extends the CARB idling restrictions to off-road vehicles and equipment operating in conjunction with CFTP construction. In practice, LAWA's enforcement of idling restrictions exceeds those mandated under the CARB Rule for both on-road and off-road vehicles and equipment.

The Third Party Monitor reviewed and independently verified the following documentation pertaining to notice of idling restriction requirements:

- Posted Signs – large signs are posted at the construction site entrance in clear view of trucks entering the air operations area. These signs clearly state the restrictions on vehicle idling, as shown in Figure 6-1;
- Written Policies – LAWA construction manager staff provided the Third Party Monitor with copies of the written idle restriction policies and procedures provided to the construction contractor;
- Notes from construction contractor/LAWA Project Management Status Meetings – in which reiteration of LAWA idling restrictions were reviewed.

Figure 6-1: Idle Restriction Signs are Posted Adjacent to Construction Site Entrances

It is the observation of the Third Party Monitor that excessive idling is less of an issue as compared to previously implemented LAX Master Plan projects. The limited amount of necessary enforcement of excessive idling restrictions continues to be performed on a "catch and release" basis; the LAWA project management staff detect an idling vehicle and inform the driver of the idling restrictions and ask them to turn their engine off. LAWA does not cite or fine the driver for a first offense. In discussion with LAWA project management, the policy of issuing a warning has worked successfully and there have been no documented repeat offenders.

Figure 6-2: The Third Party Monitor Investigated this Idling Truck – It was Found to be in Compliance with LAWA's Anti-Idling Vehicle Policy

Equipment Maintenance Records – The CBA requires that the construction contractor properly maintain all equipment in accordance with the manufacturers' specifications and schedules. Further, that all maintenance and repair records shall be made available upon request. The Third party Monitor has made this request and is awaiting receipt of vehicle maintenance records.

LAWA project management and the Third Party Monitor also conduct regular visual inspections of diesel equipment operating on the CFTP, looking for excessive exhaust soot or other indications that the equipment is in a state of disrepair. Over the initial reporting period, one (1) vehicle was determined by LAWA to be emitting excessive smoke. This occurred in October 2009. The equipment owner was instructed to remove the vehicle for repair or remove the vehicle from the airfield. The vehicle was removed, repaired, and returned to service.

Monitoring and Documentation of Verified Diesel Emission Control Systems - In addition to engine maintenance, the Third Party Monitor conducted independent monitoring of the verified diesel emission control devices installed on CFTP equipment.

Figure 6 -3: Roller Compactor Equipped with HUSS MK-System VDECS

An important aspect of onsite VDECS inspections is to ensure the onboard monitoring systems are functional. These systems monitor exhaust backpressure and temperature. Increasing exhaust backpressure is an indication that the device is accumulating soot internally. This is expected after extended periods of operation.

Excessive soot or ash accumulation restricts the engine's exhaust flow and reduces the engine's operating efficiency. High backpressure also places additional stress on the engine's turbocharger and can result in premature component failure. Thus, monitoring of exhaust backpressure is important to not only ensure the device is regenerating properly, but to also ensure the VDECS isn't damaging the equipment's diesel engine.

The HUSS MK-System uses an onboard fuel burner to clean (i.e., regenerate) the VDECS of excessive soot accommodations. Onboard regeneration is equipment operator initiated. The HUSS monitoring system provides real-time monitoring of the VDECS condition and notifies the equipment operator when regeneration is required. Figure 6-4, below, shows the cab-mounted HUSS monitoring driver display properly installed in a heavy-duty forklift currently operating on the Crossfield Taxiway Project.

Figure 6-4: VDECS Onboard Monitoring & Driver Notification System

The excavator shown in Figure 6-4, below, was inspected multiple times over the period from July through October 2007. While operating properly, the temperature and backpressure sensors are not installed on this unit. The Third Party Monitor has notified LAWA project management.

Monitoring and Documentation of Fugitive Dust Emissions – Although not directly associated with CBA Section X.F., the Third Party Monitor has been asked to independently monitor the broader scope of environmental requirements specified in the contract provisions. This added monitoring does not impose any additional workload per se, as it is conducted while onsite performing Tasks in accordance with CBA Section X.F. The primary method of fugitive dust suppression is by frequent watering of haul roads and loose dirt associated with earth moving operations.

During onsite inspections, the Third Party Monitor observed frequent wetting of construction areas. This significantly suppresses dust emission from vehicles and equipment using these roads, as shown below in Figure 6-5:

Figure 6-5: Construction Areas are Kept Wet to Reduce Fugitive Dust Emissions

On one occasion, November 4, 2009, the third Party Monitor observed visible dust emissions of the level that would trigger a Notice of Violation by the South Coast Air Quality Management District (AQMD).

Figure 6.-6 Excessive Dust Emissions Created During Hauling Operations

The Third Party Monitor notified LAWA project management, who in turn notified the construction contractor to apply additional water to the haul road. Figure 6-6, below, shows excessive dust being generated during a dirt hauling operation.

Fugitive dust emissions are also controlled by frequent sweeping of road surfaces using particulate matter efficient vacuum sweepers that comply with the requirements of South Coast AQMD Rule 1186.1:

Figure 6-7: PM-10 Compliant Sweeper

Figure 6-8: "PM-10 Certified" Seal of Approval

Task 7: Enforcement by LAWA

Section 7 of the Independent Third Party Monitor Scope of Work states that: "The Contractor shall monitor, document and independently report to the Coalition Representative on enforcement actions by LAWA".

LAWA project management and environmental contractor personnel have notified the Third Party Monitor that as of December 31, 2009, no formal enforcement actions have been required on the Crossfield Taxiway Project. LAWA project management has stated, however, that on occasion verbal warnings have been issued, as in the case of excessive vehicle idling previously discussed in this Report. No monetary fines have been levied to date on the CFTP.

Task 8: Reassessments of Emission Control Devices

The Community Benefits Agreement Section X.F.9 requires that a reassessment of best available emission control devices be conducted on an annual basis, or more frequently if warranted. The purpose is to ensure that bid documents take into account advances in emission control devices prior to bidding new construction phases of the LAX Master Plan Program.

Section X.F.9 further requires that the emission control technology review process include any new and relevant requirements or regulations promulgated by CARB or the U.S. EPA, with the understanding that the results from any reassessment of diesel emission control systems cannot be applied retroactively. Specifically, Section X.F.9.b. states that *"any new designations of emission control devices as best available shall apply only to projects that start after the devices are verified or certified for use by CARB or the EPA…"*

Since the start of construction activities on the Crossfield Taxiway Program, significant activity has occurred in the field of diesel emission controls. In the time since equipment reports were originally submitted for LAWA review and approval, two (2) new diesel emission control systems have earned CARB Level 3 verification off-road diesel vehicles and equipment, and four (4) systems have earned Level 3 conditional off-road verification. These new devices are summarized below:

Caterpillar

The Air Resources Board verified the Caterpillar Diesel Particulate Filter as a Level 3 Plus passively regenerated diesel emission control system for use with all off-road equipment powered by certain off-road diesel engines with model years between 1996 and 2005. Approved engines are certified to a particulate matter emission level equal to or less than 0.2 grams per brake horsepower-hour, are rated to 175 horsepower through 600 horsepower, and are not equipped with exhaust gas recirculation systems.

Cleaire Allmetal

The Air Resources Board has conditionally verified the Cleaire Allmetal diesel retrofit system for certain 1996 through 2010 model year diesel engines in both tracked and rubber-tired off-road vehicles. The Allmetal system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the passively regenerated Allmetal system include a diesel oxidation catalyst, a metal diesel particulate filter,

and a driver notification and data logging system. The Allmetal system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Cleaire Lonestar

The Air Resources Board has conditionally verified the Cleaire Lonestar diesel retrofit system for certain 1996 through 2009 model year diesel engines in rubber-tired off-road vehicles. The Lonestar reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The Lonestar also reduces emissions of oxides of nitrogen (NO_x) by 40 percent. The primary components of the Lonestar include a catalyzed silicon carbide wall-flow filter and a lean NO_x catalyst. The Lonestar system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Cleaire Phoenix

The Air Resources Board has conditionally verified the Cleaire Phoenix diesel retrofit system for certain 1996 through 2010 model year diesel engines in rubber-tired off-road vehicles. An on-road certified engine used in rubber-tired off-road vehicles is also included the verification. The Phoenix reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the actively regenerated Phoenix system include a silicon carbide wall-flow filter, an exhaust flow conditioner, a diesel-fueled burner assembly, and a system controller. The Phoenix system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

DCL MINE-X Sootfilter

The Air Resources Board has verified the DCL Mine-X Sootfilter system for certain 1996 through 2009 model year off-road diesel engines rated to between 100 and 1000 horsepower. The Mine-X Sootfilter system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 Plus system. The primary components of the Mine-X Sootfilter include a catalyzed flow-through filter, a catalyzed diesel particulate filter, and a back pressure monitor.

Teleflex

The Air Resources Board conditionally verified Teleflex's Clear Sky DPF as a Level 3 plus active regenerated diesel emission control system for use with the Comfort Pro APU, powered by select Kubota Z482 diesel engines with model years between 2005 and 2009. Teleflex's Clear Sky DPF uses a silicon carbide wall-flow filter with a heating element for regeneration to

achieve an 85 percent reduction in emissions of diesel particulate matter and is compliant with CARB's 2009 nitrogen dioxide standard.

CFCI is currently conducting a reassessment of each piece of diesel construction equipment as to determine its compatibility with newly verified diesel emission control systems. The most encouraging aspect of this reassessment is that VDECS are now commercially available that are compatible with diesel engines equipped with internal exhaust gas recirculation (EGR). The reassessment will be included as an element of the next Semiannual Report to be published in July 2010.

Task 9: Development and Implementation of Public Complaint Registration Process

Task 9 of the Third Party Monitor Scope of Work requires the contractor to develop and implement a public complaint registration process. The components of the task are:

- Task 9.1 – Contractor shall develop and implement a process allowing any member of the public to register a complaint alleging any entity's noncompliance with the requirements of CBA Section X.F.
- Task 9.2 – Contractor shall investigate all complaints registered by a member of the public and determine if, when, and where a violation occurred. Contractor shall notify LAWA and the LAX Coalition Representative each time a complaint is registered.
- Task 9.3 – Contractor shall provide records or summaries of public complaints registered with Contractor, including actions, findings, and determinations, to the public upon request. Contractor shall provide LAWA and the LAX Coalition Representative copies of all actions, finding, and determinations requested by the public.

As LAWA already has a widely publicized hotline for complaints, it was decided to utilize the existing number instead of establishing a new one in order to avoid duplication and potential confusion in the community.

The CFTP has had zero (0) documented public complaints from the start of construction activities in May 2009 through December 31, 2009. While this is most likely due to multiple factors, including strict dissemination and enforcement of the environmental requirements of the CBA by LAWA project management and inspectors.

Another reason that the CFTP has been complaint free-to-date is that Crossfield Taxiway construction activities take place largely in the geographic center of the LAX airfield. Sensitive receptors, such as the communities of El Segundo, are to a large extent buffered by the South airfield runways. A similar situation exists on the Northern area, where the North airfield runways provide a buffer. This serves as a barrier to common construction nuisances such as noise curfew violations.

SECTION 4 RESULTS AND CONCLUSIONS

The following is a summary of Third Party Monitor results and findings based on the first seven months of independent monitoring and documentation of CFTP construction activities. Major tasks included:

- The documenting of diesel equipment utilized or proposed for utilization on the CFTP during period commencing June 1, 2009 to December 31, 2009. Ninety eight (98) pieces of diesel equipment were independently assessed to determine compatibility with a commercially-available CARB/EPA-verified diesel emission control system;
- Monitoring of diesel emission control devices installed on construction equipment. As documented in the above Sections of this report, all devices currently in use on the CFTP appear functional;
- A review and documentation of all exemptions granted by LAWA that allow a piece of diesel construction equipment to operate on the CFTP without a best available control technology retrofit. This includes equipment that was deemed incompatible with a verified VDECS, granted an exemption on the basis of safety, or granted a "20-day" exemption on the basis of infrequent equipment use.

Overall, the CFTP project was found to be in substantial compliance with all provisions of the CBA Section X.F. The few exceptions include five (5) pieces of diesel construction equipment that appear compatible with a Level 3 VDECS but not identified by LAWA as requiring a BACT retrofit. Three additional vehicles may be compatible with a Level 3 VDECS; however, additional investigation is required to make this determination with certainty.

The next Semiannual Report will cover the period commencing January 1, 2010 and ending June 30, 2010. Additional items to be included in the Second Semiannual Report include a quantification of emission reductions resulting from the use of Level 3 VDECS, a reassessment of equipment compatibility with newly verified devices, and a quantification of emission reductions attributable to the onsite concrete batch plant.

APPENDIX A

INDEPENDENT THIRD PARTY MONITOR SEMIANNUAL REPORT

CROSSFIELD TAXIWAY PROJECT MASTER EQUIPMENT LIST

APPENDIX A - MASTER EQUIPMENT LIST

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year	Equipment Serial Number	CARB EIN	Equipment Model Number	Engine 1 Manufacturer	Engine 1 Model	Engine Tier	Engine 1 Model Year	Engine 1 Serial Number	Engine 1 Horsepower	Engine 1 Displacement	Engine 1 Family	Engine Compatible with ESC	Engine Compatible with HUS	N/A	Engine 2 Manufacturer	Engine 2 Model	Engine 2 Model Year	Engine 2 Serial Number	Engine 2 Horsepower	Engine 2 Displacement	Engine 2 Family	NMHC
14-401	R&L Brosamer, Inc.	Hydraulic Track Excavator	Linkbelt	2007	K6J7-2331	EP8L36	330LX	Isuzu	AH-6HK1X	Tier 3	2006	6HK1-515633	175	7.8 liter	6AZXL07.8HXA	Combifilter	FS-MK		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-610	R&L Brosamer, Inc.	Wheel Loader	Komatsu	2006	55060	CL7T57	WA-500-6	Komatsu	SAA6D140E-5	Tier 3	2006	530584	250	15.2 liters	6KLXL15.2ED6				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14-402	R&L Brosamer, Inc.	Hydraulic Track Excavator	Hitachi	2007	20780	HMA39	ZX450LC-3	Isuzu	AH-6WG1X	Tier 3	2006	6WG1XDHAA-03	348	15.7 liters	6SZXL15.7HXA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14-705	R&L Brosamer, Inc.	Hydraulic Track Excavator	Volvo	2007	10064	PR3J97	EC700	Volvo	D16EEAE3	Tier 3	2007	D16E0177710A	464	16.1 liters	7VSXL16.1CE3				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14-403	R&L Brosamer, Inc.	Hydraulic Track Excavator	Linkbelt	2007	K7J7-2090	N/A	460LX	Isuzu	AH-6UZ1XYSS	Tier 3	2007	6UZ1-517326	386	9.8 liters	7SZXL09.8HXA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9-002	R&L Brosamer, Inc.	RT Hydraulic Crane	Linkbelt	1993	5313-781	PU4U49	HSP8060	Cummins	6CT3C	Tier 0	1993	4486092	175	6.0 liters	TBD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-23	R&L Brosamer, Inc.	Roller Compactor	Ingersoll Rand	2007	194937	TL4T98	SD116DX	Cummins	QSB6.7	Tier 3	2007	46741656	140	6.7 liters	7CWXL0409AAC				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45-205	R&L Brosamer, Inc.	Smooth Drum Roller	CAT Bitalli	2000	109B18802243	LF9P48	SD84	Cummins	B5.9C	Tier 1	2000	21445594	135	5.9 liters	YCEXL0359AAA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-101	R&L Brosamer, Inc.	R/T Forklift	Carelift	2000	099L	RR8M64	ZB2004	Cummins	B5.9C	Tier 1	2000	45868426	100	TBD	TBD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
980-2	R&L Brosamer, Inc.	Wheel Loader	Caterpillar	2000	2KR03790	YF6U45	980G	Caterpillar				41Z17321	300		YCPLX14.6MRJ											
980-3	R&L Brosamer, Inc.	Wheel Loader	Caterpillar	2004	PAWH02112	UU4S88	980G	Caterpillar				BET11065	311		4CPXL14.6ESK											
623-8	R&L Brosamer, Inc.	Scraper	Caterpillar	1991	6YF00298	LJ5F47	623E	Caterpillar		Tier 0		11N00494	365		N/A											
623-10	R&L Brosamer, Inc.	Scraper	Caterpillar	1997	6BK00324	PR3L74	623F	Caterpillar				41Z01887	365		TCP14.RZDBRJ											
762-3	R&L Brosamer, Inc.	Scraper	John Deere	1998	TO762BX842385	GD7A47	762B	John Deere		Tier 0		RG6081A052946	150		N/A											
14-11	R&L Brosamer, Inc.	Motor Grader	Caterpillar	2001	7WJ01909	XW5S84	14H	Caterpillar				6NC25357	215		1CPXL10.5MRG											
14-010	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1997	6NC03969	UW3P75	140H	Caterpillar				6NC03969	150		VCP10.RZDARF											
16-27	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1989	93U2897	HG7B34	16G	Caterpillar		Tier 0		70V29764	275		N/A											
210-3	R&L Brosamer, Inc.	Skip Loader	John Deere	2004	882995	NP3L36	210LE	John Deere				PE4045D360145	75		JDXL04.5043											
C-21	R&L Brosamer, Inc.	Compactor	Caterpillar	2005	LCNG01254	GP9N87	CS563E	Caterpillar				CPT16858	150		5PKXL06.OVK1											
D6-3	R&L Brosamer, Inc.	Track Dozer	Caterpillar	2004	ALH00425	CK9W38	D6N	Caterpillar				BMA13682	150		4CPXL07.2IISK											
824-1	R&L Brosamer, Inc.	Wheel Dozer	Caterpillar	1989	85X01292	FM5V55	824C	Caterpillar		Tier 0		70V26174	310		N/A											
I-85	R&L Brosamer, Inc.	Water Truck	International	2009	1HTWHAAT99J640445	N/A	7400	GDT	GDT 300			GA46003	300		N/A											
05-109	R&L Brosamer, Inc.	Water Truck																								
06-017	R&L Brosamer, Inc.	Mechanic Truck																								
06-018	R&L Brosamer, Inc.	Mechanic Truck																								
09-002	R&L Brosamer, Inc.	Crane																								
09-103	R&L Brosamer, Inc.	Crane																								
13-101	R&L Brosamer, Inc.	Forklift																								
13-105	R&L Brosamer, Inc.	Forklift																								
13-110	R&L Brosamer, Inc.	Forklift																								
13-111	R&L Brosamer, Inc.	Forklift																								
13-112	R&L Brosamer, Inc.	Forklift																								
13-117	R&L Brosamer, Inc.	Forklift																								
13-203	R&L Brosamer, Inc.	Loader																								
13-607	R&L Brosamer, Inc.	Loader																								
13-608	R&L Brosamer, Inc.	Loader																								
14-006	R&L Brosamer, Inc.	Excavator																								
14-103	R&L Brosamer, Inc.	Backhoe																								
14-107	R&L Brosamer, Inc.	Backhoe																								
14-108	R&L Brosamer, Inc.	Backhoe																								
16-304	R&L Brosamer, Inc.	Cure Machine Pump																								
20-007	R&L Brosamer, Inc.	Paver																								
20-009	R&L Brosamer, Inc.	Paver																								
22-101	R&L Brosamer, Inc.	Cure Machine																								
24-104	R&L Brosamer, Inc.	Concrete Placer																								
45-205	R&L Brosamer, Inc.	Compactor																								
58-022	R&L Brosamer, Inc.	Vacuum Trailer																								
TR-043	Royal Electric Co.	Backhoe	John Deere	2008	T0410JX172257	TBD	410J	John Deere	4045HT054	Tier 3	2008	PE4045L063237	98	4.5 liters	8JDXL06.8106				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TR-042	Royal Electric Co.	Backhoe	John Deere	2008	T0410JX172243	TBD	410J	John Deere	4045HT054	Tier 3	2008	PE4045L061954	98	4.5 liters	8JDXL06.8106				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TR-037	Royal Electric Co.	Skid Steer	Bobcat	2006	530712243	TBD	S220	Kubota	V3800-DI-T-ES03	Tier 2	2006	V3300T6J1499	75	3.3 liters	6KBXL03.3AAD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VH-257	Royal Electric Co.	2/3 Yard Dump Truck	Ford	2008	1FDAF56R58EA17652		F-550	International	A325		2006	712060421388	325	6.4 liter	6NVXH6.4AGA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01
VH-261	Royal Electric Co.	Flatbed Truck	Ford	2008	1FDXF46R38EB44708		F-450 XL	International	A325		2007	8N30830	325	6.4 liter	7NVXH06.4AGA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01
VH-259	Royal Electric Co.	Flatbed Truck	Ford	2008	1FDXF46R38EB77775		F-450 XL	International	A325		2007	8N30821	325	6.4 liter	7NVXH06.4AGA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01
VH-215	Royal Electric Co.	5-Yard Dump Truck	Ford	2005	3FRNF65S05V215560		F-650	Caterpillar	C7		2005	SAP07565	230	7.2 liter	5CPXH0442HBK				N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.2
AC-025	Royal Electric Co.	Air Compressor	Ingersoll-Rand	2007			P185WJDR	John Deere	4024-TF-270				49	2.44 liter	7JDXL02.4090				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AC-026	Royal Electric Co.	Air Compressor	Ingersoll-Rand	2007			P185WJDR	John Deere	4024-TF-270				49	2.44 liter	7JDXL02.4090				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LP-006	Royal Electric Co.	Light Plant	Wacker	2000			320-4000 LT4	Caterpillar	3LB1				15.7	1.1 liter	YSZXS01.1WNA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LP-007	Royal Electric Co.	Light Plant	Wacker	2000			320-4000 LT4	Caterpillar	3LB1				15.7	1.1 liter	Y3ZXS01.1WNA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LP-008	Royal Electric Co.	Light Plant	Wacker	2002			LTC4L	Lombardini	LDW 1003				10	0.916 liter	2LBDL.916F69				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LP-009	Royal Electric Co.	Light Plant	Wacker	2002			LTC4L	Lombardini	LDW 1003				10	0.916 liter	2LBDL.916F69				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LP-010	Royal Electric Co.	Light Plant	Wacker	2002			LTC4L	Lombardini	LDW 1003				10	0.916 liter	2LBDL.916F69				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
VH-170	Royal Electric Co.	Pickup	Ford	2002			F250XL	International	B250CF				275	7.3 liter	2NVXH07.3ANC				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
VH-211	Royal Electric Co.	Pickup	Ford	2005			F250XL	International	A325C				325	6.0 liter	5NVXH06.0AED				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
VH-242	Royal Electric Co.	Pickup	Ford	2008			F250XL	International	A325				325	6.4 liter	6NVXH06.4AGC				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
VH-254	Royal Electric Co.	Pickup	Ford	2008			F250XL	International	A325				325	6.4 liter	6NVXH06.4AGA				N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LB04U0520	JV Land Clearing Inc.	Excavator																								
AT-1	Fine Grade Equipment	Articulated Dump Truck	Terex	2007	A8651101	AG4L39	TA40	Detroit Diesel	N/A	Tier 3	2006	6R0932802	450	14.0 liters	6DDXL14.0VLD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AT-2	Fine Grade Equipment	Articulated Dump Truck	Terex	2007	A8651105	NW6S74	TA40	Detroit Diesel	N/A	Tier 3	2006	6R0943195	450	14.0 liters	6DDXL14.0VLD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AT-3	Fine Grade Equipment	Articulated Dump Truck	Terex	2007	A8651107	RD6W57	TA40	Detroit Diesel	N/A	Tier 3	2006	6R0943187	450	14.0 liters	6DDXL14.0VLD				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Equipment Exempted Due to Driver Visibility Safety

30-404	R&L Brosamer, Inc.	Motorgrader	Caterpillar	2004	OASE01188	WW5K68	14G	Caterpillar	3176	Tier 2	2004	3PD09485	220	N/A	N/A				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-301	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1995	72V17479	XC7E37	140G	Caterpillar	3306	Tier 0	1995	08Z83526	176	N/A	N/A				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-401	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1983	96U6229	LY9R95	14G	Caterpillar	3306	Tier 0	1983	08Z17491	200	N/A	N/A				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24-106	R&L Brosamer, Inc.	Drive Over Unloader																								
16-24	R&L Brosamer, Inc.	Motorgrader	Caterpillar	TBD																						

Equipment Operating with 20-Day Exemption Status

58-108	R&L Brosamer, Inc.	Sweeper																								
58-113	R&L Brosamer, Inc.	Sweeper																								
23-8	R&L Brosamer, Inc.	Scraper																								
23-10	R&L Brosamer, Inc.	Scraper																								
210-03	R&L Brosamer, Inc.	Skip Loader																								
6323-5	R&L Brosamer, Inc.	Scraper																								
354	R&L Brosamer, Inc.	Reclaimer																								
358	R&L Brosamer, Inc.	Reclaimer																								
A-1	Antigo	Concrete Breaker																								
N/A	Diversified Concrete	Concrete Cutting Machine																								
N/A	JV Land Clearing Inc.	Loader																								
350-1	Fine Grade Equipment	Excavator	Caterpillar	1994	9FL00120	DV8G57	350L	Caterpillar		Tier 0	1994	13Z31223	286													
FL-005	Royal Electric Co.	Forklift																								
TL-049	Royal Electric Co.	Vacuum Trailer																								
TN-012	Royal Electric Co.	Trencher	Vermeer	2004			OCC145A	Cummuns	6068T		2004		286	6.8 liter	6068TF250											
TR-033	Royal Electric Co.	Loader																								
VH-094	Royal Electric Co.	Water Truck	Ford	1990			F800	Ford	170				170	6.6 liter	KMF078EPC8											
VH-106	Royal Electric Co.	Dump Truck	GMC	1994			Top Kick	Caterpillar	3116				275	6.6 liter	PCT0403FZDX											
VH-119	Royal Electric Co.	Flatbed Truck	Ford	1999			F450XL	International					250	7.3 liter	N/A											
VH-134	Royal Electric Co.	Flatbed Truck	Ford	2000			F450XL	International	N/A				250	7.3 liter	N/A											
VH-213	Royal Electric Co.	Flatbed Truck	Ford	2005			F450XL	International	A325				325	6.0 liter	5NVXH06.0AEC											
VH-215	Royal Electric Co.	Dump Truck	Ford	2005			F650	Caterpillar	C7				230	7.2 liter	5CPXH0442HBK											
VH-216	Royal Electric Co.	Ford F550 Pickup	Ford	2005			F550XL	International	A325		2005		325	6.0 liter	5NVXH06.0AEC											
VH-224	Royal Electric Co.	Flatbed Truck	Ford	2006			F550XL	International	A325		2006		325	6.0 liter	5NVXH06.0AEC											

APPENDIX A - MASTER EQUIPMENT LIST

Engne Certification					Level 3 VDECS												Level 2 VDECS			Level 1 VDECS		Engine Emission Standard				Engine NTE Emissions			
NMHC+NOx	CO	PM	EGR	Emissions Controls Installed	Cleaire Horizon	Cleaire Longview	Cleaire Vista	Donaldson Low NO2	Donaldson Semi-Active Electric Filter	Engine Control Systems Purifilter L	Engine Control Systems Purifilter H	Engine Control Systems Purifilter Plus	Engine Control Systems Combifilter	HUSS FS-MK	Johnson Matthey EGRT	ESW ThermaCat	SK Energy	Donaldson DFM Multi-Stage Filter	Lubrizol PuriNOx	Engine Control Systems Purifier	Donaldson DCM	Donaldson DCM + Spiracle CCV	NMHC	NMHC+NOx	CO	PM	NMHC	NMHC+NOx	CO	PM
3.5	0.6	0.100	Yes																			N/A	4.0	3.5	0.2				
3.5	0.4	0.150	Yes																			N/A	4.0	3.5	0.2				
3.6	0.8	0.170	Yes																			N/A	4.0	3.5	0.2				
3.8	0.9	0.170	Yes																			N/A	4.0	3.5	0.2				
3.5	0.9	0.150	Yes																			N/A	4.0	3.5	0.2				
TBD	TBD	TBD	No	VDECS Pending																									
3.4	1.8	0.140	No	VDECS Pending																		N/A	4.0	5.0	0.3				
TBD	TBD	TBD	No	VDECS Pending																									
TBD	TBD	TBD	No	VDECS Pending																									
4.1	1.4	0.200	No	Huss Pending																		N/A	4.7	5.0	0.4				
4.1	1.4	0.200	No	Huss Pending																		N/A	4.7	5.0	0.4				
6.6	1.6	0.330	No	VDECS Pending																									
1.2	2.0	0.001	Yes	DOC; PTOX; EGR																		0.5	2.5	15.5	0.1	0.625	3.125	19.375	0.125
1.2	2.0	0.000	Yes	DOC; PTOX; EGR																									
1.2	2.0	0.000	Yes	DOC; PTOX; EGR																									
2.4	5.2	0.100	No	DOC; VDECS										Installed															
3.9	1.2	0.180	Yes																			N/A	4.0	3.5	0.2				
3.9	1.2	0.180	Yes																			N/A	4.0	3.5	0.2				
3.9	1.2	0.180	Yes																			N/A	4.0	3.5	0.2				

APPENDIX C

LOS ANGELES WORLD AIRPORTS SUSTAINABILITY REPORT DATED JUNE 2009

Los Angeles World Airports
Global Leader in Airport Sustainability

Los Angeles World Airports Sustainability Report

June 2009

SUSTAINABILITY REPORT

Los Angeles World Airports
Global Leader in
Airport Sustainability

Los Angeles World Airports Sustainability Report

June 2009

Los Angeles World Airports
Gina Marie Lindsey, Executive Director

Los Angeles World Airports

CDM

Los Angeles World Airports
Global Leader in
Airport Sustainability

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Los Angeles World Airports
Global Leader in
Airport Sustainability

June 30, 2009

Honorable Mayor Villaraigosa:

LAWA is pleased to submit to you our Sustainability Report for 2008. LAWA is committed to becoming the greenest airport system in the world and to this end, is dedicated to developing, remodeling, and operating its facilities in a sustainable manner.

LAWA is actively implementing its Sustainable Airport Planning, Design and Construction Guidelines for its ambitious LAX Development Program. LAWA updated the Guidelines in April 2009. LAX's new and re-designed buildings and infrastructure will be designed and built for a sustainable future. LAWA believes that sustainably designing, building, and upgrading will allow for greater energy efficiency which will provide cost savings and environmental benefits over the life of the projects.

As LAWA restructured its operations and continues the design and construction process for the LAX Development Program, we recommitted ourselves to the sustainable vision and priorities that were developed in 2006 and 2007 by the Board of Airport Commissioners and LAWA staff. With the new organization, LAWA further defined its approach and strategies. LAWA continues to make great progress with its green purchasing practices, its award-winning employee Rideshare program, the popular FlyAway Program, the successful Source Reduction and Recycling Program, and the expanding Alternative Fuel Vehicle Program.

LAWA is committed to an integrated and coordinated approach to sustainability using the Sustainability Performance Improvement Management System (SPIMS) at the City's airports. As we continuously improve our sustainability activities, LAWA will use the annual report to communicate to the public its actions which will make LAWA a green airport system.

Sincerely,

Gina Marie Lindsey

Objective 1 *INCREASE WATER CONSERVATION IN ALL AIRPORT FACILITIES AND FOR ALL OPERATIONS.*

Water is a precious resource in Southern California and the Inland Empire. LAWA recognizes that it must be proactive in its water conservation efforts especially with the consistent drought conditions experienced in recent years. Therefore, LAWA has set four targets to reduce its water consumption in its everyday operations and find ways to re-use water from local treatment sources. The water conservation targets are:

Target 1A: Increase by 50% landscaped acreage irrigated by reclaimed water by 2012.

Target 1B: Increase by 10% use of non-potable/reclaimed water by 2010.

Target 1C: Increase acres of native or drought resistant vegetation to 10% of landscaped acres by 2012.

Target 1D: Reduce potable water use by 10% per passenger and/or cargo tonnage by 2012.

LAWA is already actively working toward meeting these goals using the following current practices:

Table 1-1 Water Conservation Current Practices

- ☑ LAX uses reclaimed water to irrigate 35% of its landscaped acres.
- ☑ LAX car wash facility uses recycled water.
- ☑ LAX's landscape irrigation systems are computer controlled.
- ☑ The toilets and sinks have been converted to low flow fixtures in the LAX terminals and buildings.

Reclaimed Water Use

LAX uses reclaimed water to irrigate 35% of its landscaped acres with service being limited to only those areas accessible to a reclaimed water supply pipeline. The source of the reclaimed water is the Hyperion Wastewater Treatment Plant located just south of LAX along the coast and operated by the City of Los Angeles Bureau of Sanitation. The Westside Water Recycling Project (WWRP) is a joint effort between the West Basin Municipal Water District and Los Angeles Department of Water and Power (LADWP). Secondary treated wastewater from Hyperion is then sent to the nearby West Basin Water Recycling Facility—the largest recycled water plant of its type in the United States—where it is further treated to become high quality reclaimed water and then distributed to businesses.

The use of reclaimed water reduces the region's dependence on imported water from Northern California, the Eastern Sierras, and the Colorado River and reduces the volume of secondary treated wastewater that is discharged to Santa Monica Bay. LAX receives disinfected tertiary water—secondary treated

wastewater that has been filtered and disinfected—to irrigate its landscaped areas. Approximately 40.2 million gallons, or 123 acre-feet, of water is conserved each year with this reclaimed water.

Manchester Boulevard Reclaimed Water Line

The reclaimed water line under Manchester Boulevard will be used to irrigate the Westchester Golf Course. As part of Initiative 1-1, LAWA is currently working with the successful bidder who will operate the golf course. The intention of this initiative is to have LAWA work with relevant agencies, like LADWP and the Los Angeles County Department of Health, to complete this application of reclaimed water for golf course irrigation. Planning and permitting is anticipated to begin by late summer 2009.

Sepulveda/Imperial Gateway Reclaimed Water Line

The proposed reclaimed water line between Sepulveda Boulevard and Imperial Avenue will be used by the Central Terminal Area (CTA) for LAX Central Utilities Plant (CUP) cooling tower. As part of Initiative 1-2, LAWA will work with affected agencies to extend the reclaimed water line. Currently, the infrastructure and meters and the water line for irrigation have been installed. The current estimated activation date for the Sepulveda/Imperial water line is August 2010. LADWP estimates that bringing reclaimed water to the CTA would further reduce LAX's water usage by approximately 90 acre-feet per year.

In 2008, ONT installed an Evapo-Transpiration System to decrease irrigation water use.

Table 1-2 Water Conservation Initiatives

Initiative 1-1	LAWA will work with affected agencies to begin the use of reclaimed water at the Westchester Golf Course.
Initiative 1-2	LAWA will work with affected agencies to extend the reclaimed water line to Sepulveda/Imperial gateway and the Central Terminal Area.
Initiative 1-3	LAWA will plant native of drought resistant vegetation in all new landscaping projects.
Initiative 1-4	LAWA will install centralized controls to monitor and regulate irrigation at ONT and VNY.
Initiative 1-5	LAWA will evaluate the feasibility of installing waterless urinals in LAWA buildings.
Initiative 1-6	LAWA will evaluate the feasibility of installing ultra low flow urinals in LAWA buildings.

Computer Controlled Irrigation System

Although LAX uses reclaimed water to irrigate 35% of its landscaped acres, LAWA believes it is important to conserve both the fresh and reclaimed water it uses to irrigate its grounds. LAX has a computerized irrigation system, which provides one central location for controlling the irrigation in the CTA, the upper

level roadway planters, along Century Boulevard and Westchester Parkway and the Sepulveda Boulevard-Century Boulevard interchange – almost 100% of its landscaped areas. With this centralized system, LAX can easily monitor and control the time and duration for irrigation.

This central control facility has allowed LAX in wet years to limit the duration of irrigation from one central control system. Construction & Maintenance (C&M) personnel no longer need to go to each irrigation system to control the flow of water.

With initiative 1-4, LAWA plans to increase its use of centralized controls for irrigation at both ONT and VNY. The ONT Plumbing Shop installed a Hunter Evapo-Transpiration (ET) system in March 2008, which included the ET modules, sensors and a rain gauge. The ET system can create a new, water-efficient irrigation program every day based on local weather conditions by measuring solar radiation, air temperature and humidity. Over the last year, LAWA has been reviewing the feasibility of installing centralized controls at ONT. At this time, the cost of installing controls is prohibitive; therefore, LAWA will continue to monitor the cost and feasibility of installing centralized irrigation controls.

In 2009, LAWA will test waterless urinals for use in LAX terminals.

Low Flow Fixtures

LAWA has installed low-flow water fixtures on 100% of toilets and sinks in LAX terminals and buildings. As part of Initiative 1-6, LAWA is in the process of obtaining approximately seven to nine waterless urinals for use at LAX's Terminal 1. These will be evaluated over the next twelve months for consideration as part of its conservation measures. In addition, LAWA-owned plumbing fixtures at the other airports have low-flow water fixtures and meet the current standards. As ultra-low flow technology becomes more economically feasible, LAWA will install this technology where feasible as committed in Initiative 1-5.

Native and Drought Resistant Vegetation

Initiative 1-3 commits LAWA to planting native and drought resistant vegetation in new landscaping projects at the LAWA airports. As personnel staffing permits, ONT and VNY follow the lead of LAX and replace vegetation with hardscape or drought resistant plants.

Objective 2

INCREASE USE OF ENVIRONMENTALLY AND SOCIALLY RESPONSIBLE PRODUCTS.

LAWA has a more than 10 year history of promoting the use of environmentally and socially responsible products in its operations. LAWA is committed to increasing its use of environmentally and socially responsible products. Therefore, LAWA has set targets that make systematic changes to its purchasing procedures.

Target 2A: Develop and implement a Sustainable Procurement Program by January 2009.

Target 2B: Increase use of recyclable content products as outlined by the City Council.

LAWA has both purchased recycled content products and performed activities to maximize its purchasing of environmentally and socially responsible products.

Table 2-1 Sustainable Procurement Current Practices

- ☑ LAWA includes green procurement language in custodial chemical and paper product RFPs.
- ☑ LAWA performed a Sustainability Assessment.
- ☑ LAWA uses 30% recycled content paper its printers and copiers
- ☑ LAWA uses recycled content paper for its paper towels, toilet seat covers and toilet paper.
- ☑ LAWA uses 30% post consumer recycled content plastic trash bags.

LAWA encourages the use of Green Seal products for custodial use.

Green Procurement Language

LAWA has developed procurement language to purchase environmentally and socially responsible products as is described in Initiative 2-1 but did not meet its commitment to develop a Sustainable Procurement Program by January 2009. With this language included in Requests for Proposals and Request for Bids, LAWA has purchased recycled content office paper, recycled content plastic bags, Green Seal custodial and other cleaning chemicals. Green Seal is an independent non-profit organization that develops environmental standards for cleaning and other consumer products. LAWA now includes the following language in their Requests for Bids for custodial products:

'Los Angeles World Airports prefers the purchase of environmentally friendly custodial cleaning supplies which are deemed to be "Green Seal" and/or "Environmental Choice," designated products by the California Integrated Waste Management Board, an agency of the State of California."

In addition, LAWA has teamed with the Clinton Foundation and the City of Los Angeles to create markets for energy savings products. With this partnership,

LAWA plans to lower production and delivery costs for building materials, traffic and street lighting and clean buses.

Initiative 2-2 specifies purchase of only duplex copiers and printers, where feasible. LAWA is developing a procedure to meet this initiative.

LAWA converted to an environmentally friendly hand soap.

LAWA facilities have now converted to an environmentally friendly hand soap, which is used throughout the facilities, where feasible, as described in Initiative 2-3. Language was added to the procurement contracts to encourage the purchasing of this type of "green" soap. For the eleven months from June 1, 2008 through April 30, 2009, LAX used a total of 874,332 ounces of foam soap. LAWA will perform a cost benefit analysis of soap use after one year of use to determine cost savings.

Table 2-2 Sustainable Procurement Initiatives

Initiative 2-1	LAWA will develop and receive approval of a sustainable procurement program.
Initiative 2-2	LAWA will specify only purchases of copiers and duplex printers, where feasible.
Initiative 2-3	LAWA will convert hand soap used throughout LAWA facilities to an environmentally friendly alternative, where feasible.
Initiative 2-4	LAWA will expand its monitoring and tracking of recycled content product use.

Monitoring and Tracking of Recycled Content Product Use

The intention of Initiative 2-4 is to have LAWA expand its monitoring and tracking of recycled content product use. For 2004 through 2007, LAX tracked the use of its recycled content paper usage and in 2006 tracked the amount of recycled content plastic trash bags that were purchased. As more recycled content products are added at LAWA facilities, LAWA will develop a more specific tracking system for recycled content product use. LAWA already uses 30% post-consumer recycled paper, 40% post-consumer paper towels and 20% recycled content trash bags.

Objective 3

INCREASE RECYCLING AND SOURCE REDUCTION EFFORTS AT ALL FACILITIES AND FOR ALL OPERATIONS.

The City of Los Angeles Ordinance 174706 pledged to divert 70% of its solid waste from landfills and incinerators by 2020. This goal was set to minimize the need to build new landfills and save energy by increasing recycling. Recycling is an important initiative in LAWA's drive to be a sustainability leader. LAWA's recycling efforts have paid off in many ways including maintaining a waste diversion rate of more than 67 percent at LAX in 2008. However, LAWA will continue its efforts to increase recycling.

Through their goal of taking a leadership role, LAWA has set the following targets for increasing recycling and source reduction:

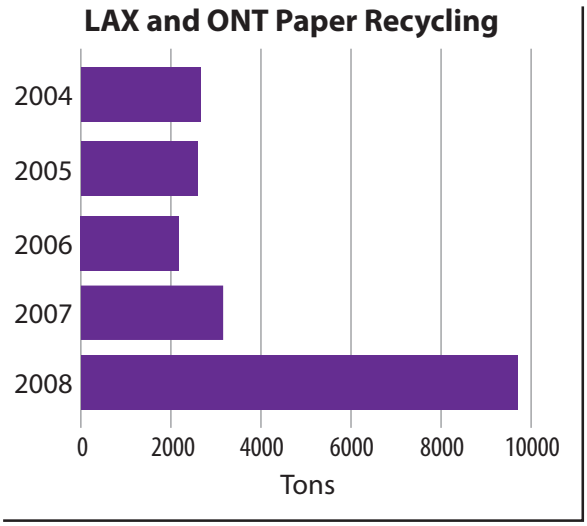
Target 3A: Divert 70% of waste from landfill disposal by 2015 (using 1998 baseline).

Target 3B: Expand in-flight recycling pilot programs to six airlines by December 2009.

LAWA's extensive recycling program at its airports and offices have developed many programs to reduce waste.

Table 3-1 Source Reduction/Recycling Current Practices

- ☑ LAX and ONT have developed comprehensive recycling programs.
- ☑ LAX voluntarily removed and recycled 2,200 pounds of mercury from equipment.
- ☑ LAWA has an extensive construction and demolition debris recycling program.
- ☑ LAX developed a pilot program with UAL and SFO to recycle trash on LAX-SFO flights.



LAX Source Reduction and Recycling Program

LAX has an extensive recycling program that recycles paper, plastic, glass, metals, wood/pallets, green waste, tires, food, construction debris, oil, textiles, toner cartridges and e-waste. This successful program has been in place since 1990. In its first year, LAX recycled approximately 3,000 pounds of solid waste. LAWA recycled approximately 9,000 tons of solid waste in 1992 when LAX implemented its Source Reduction and Recycling Program. In 2008, LAX recycled approximately 21,000 tons of solid waste, consistent with 2007 numbers.

Most notably, the percentage of construction debris in the total amount has decreased sharply.

Over the years, LAWA has increased its recycling scope by providing free access for tenants to its recycling programs and by identifying new materials to recycle. In addition, LAWA has recycling containers for paper, plastic and metal in the terminal areas. Since 2004, LAX's waste diversion rate increased from 54% to 67%. LAX is committed to meeting Los Angeles' 70% diversion goal.

Some of the new recycling projects at LAX include:

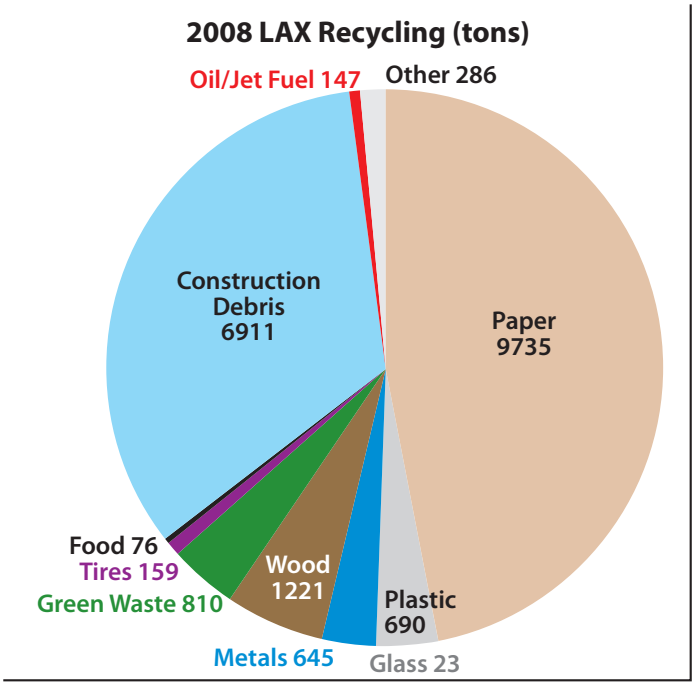
- New advertising "amenity units" incorporating recycling collection into the unit will be installed throughout the terminals. This is part of LAWA's new advertising concession program, and as described in Initiative 3-2, it helps collect more recyclables from passenger areas.
- Recycling coffee grounds and filters into compost.
- Expanding cooking oil and grease recycling at the airport and exploring the feasibility of an airport-wide collection program.
- Requiring mandatory recycling in airport concession contracts. Currently, this is voluntary.

In 2008, LAX recycled over 10,000 tons of paper.

Recycled Materials (in tons)	2004	2005	2006	2007	2008
Paper	2,636.82	2,567.72	2,087.90	3,034.25	9,735.03
Plastic	915.58	997.06	1,041.12	693.99	690.12
Glass	15.15	9.24	12.95	5.46	22.53
Metals	1,245.76	391.41	480.96	396.82	645.05
Wood/pallets	2,321.20	2,041.71	2,023.46	3,509.78	1,221.41
Green Materials	214.09	312.00	405.05	53.45	810.00
Tires	85.78	232.45	91.21	80.02	158.72
Food	35.00	28.73	46.39	56.90	76.05
Construction Debris/ pmb	10,574.00	12,635.00	13,517.69	12,743.57	6,911.43
Other	69.14	183.56	155.56	334.55	432.67
Total Recycled Materials	**18,112.53**	**19,398.89**	**19,862.30**	**20,908.80**	**20,703.01**
Total Refuse Generation	**33,300.36**	**33,736.76**	**33,464.85**	**33,856.58**	**32,422.98**

LAWA-Wide Recycling

In addition to the LAX Source Reduction and Recycling Program, ONT and VNY also provide recycling programs to their tenants and passengers. LAWA provides recycling services to tenants at no charge and assists them with setting up their own recycling programs. Through these actions, LAWA recycled and reused more than 67% of the trash it generated in 2008. Since 2004, ONT's average diversion waste has been 59%. This diversion rate has held steady at ONT. Like LAX, ONT provides free recycling to its tenants and passengers.



LAX and ONT have developed a successful paper recycling program above the LAWA requirement of purchasing only 30% post-consumer paper. In 2008, LAX recycled approximately 10,000 tons of paper including cardboard, newspaper, magazines and miscellaneous office paper and since 2004, ONT and LAWA have recycled over 19,000 tons of paper.

Initiative 3-6 addresses LAWA's intent to increase the recycling of batteries, toner cartridges, computers, light bulbs and other electronic equipment. The Construction and Maintenance employee orientation now includes a section on how to recycle various materials, including e-waste. There is also a plan to have a LAWA-wide "roundup" of e-waste at the airports in 2009.

Composting Program

LAX generates grass clippings and other green wastes from its landscaped acres. These wastes are consolidated and composted for use as mulch for its landscaped areas. From 2004—2008, LAX has composted close to 2,000 tons of yard waste. This program allows LAWA to both save money and landfill space. Composting the green waste generates valuable mulch for re-use throughout the airport. LAWA is also beginning to compost food waste, such as coffee grounds and filters. The intention of Initiative 3-1 is to develop an off-site composting facility for food waste; the planning for this facility is being prioritized.

Table 3-2 Source Reduction/Recycling Initiatives

Initiative 3-1	LAWA will develop an off-site composting facility for food waste.
Initiative 3-2	LAWA will develop new programs to collect recyclables from passenger areas.
Initiative 3-3	LAWA will work with airlines to expand airline recycling program.
Initiative 3-4	LAWA will continue its development of a database inventory to track all material flows.
Initiative 3-5	LAWA will educate employees to decrease use of disposable beverage containers and utensils.
Initiative 3-6	LAWA will increase recycling of batteries, toner cartridges, computers, light bulbs, and other equipment.
Initiative 3-7	LAWA will increase and encourage use of electronic documents.

In-Flight Recycling Program

LAX works with five airlines to expand in-flight recycling.

LAWA constantly searches for ways to increase its recycling. Over the years, LAWA has identified in-flight recycling as a gap in its program. Airplanes have minimal space for storing and segregating materials for recycling. In addition, each airport has a different method for collecting materials for recycling. Therefore, LAX created a pilot program with United Airlines and San Francisco International Airport (SFO) for recycling in-flight wastes for recycling. That pilot program has been completed.

As is described in Initiative 3-3, LAWA is beginning to work with airlines to expand their in-flight recycling program. The program includes Northwest Airlines and Continental Airlines which both implemented an in-flight recycling program. LAWA expects Alaska Airlines to implement a similar program by the end of 2009 with Southwest Airlines coming on-line in 2010. In addition, as part of United Airlines "Blue to Green" program, waste studies are being conducted at the airports they serve. The airline plans to roll out a system-wide in-flight recycling program at a future date. Other airlines are also in the planning stages.

As stated in Initiative 3-4, LAWA will continue its development of a database inventory to track all material flows. A completion date for this initiative has not been established.

LAWA Employee Education

LAWA is educates its employees about decreasing the use of disposable beverage containers and utensils through new employee orientation sessions. As of January 2009, LAWA has a section of the new employee orientations devoted to decreasing the use and increasing the recycling of disposable beverage containers and utensils, as is the intention of Initiative 3-5.

Electronic Documents

To increase and encourage the use of electronic documents, as described in Initiative 3-7, LAX has integrated an electronic document system called Prolog into the LAX Development Program database. This electronic database allows LAX employees to enter documents related to LAX Development Program projects into the system. The reviews of the projects are now done through Prolog.

Objective 4

REDUCE ENERGY USAGE AND INCREASE USAGE OF GREEN POWER AT ALL AIRPORT FACILITIES AND IN ALL OPERATIONS.

With the cost of fossil fuels skyrocketing, and the need to minimize emissions of criteria and toxic air pollutants and greenhouse gases, the efficient use of energy and the incorporation of green power are critical factors in developing and maintaining sustainable operations at LAWA's facilities. LAWA has set the following targets:

Target 4A: Increase green power use to 25% by December 2008.

Target 4B: Reduce energy use by 10% per passenger and/or cargo tonnage by 2010.

LAWA has embraced energy efficiency for over 20 years. LAWA has developed programs both large and small to minimize its energy use.

Table 4-1 Energy Conservation and Green Power Current Practices

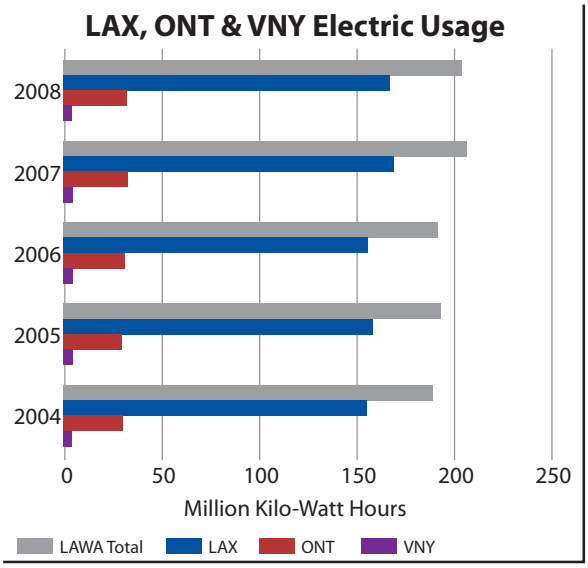
- ☑ Twenty-five (25) percent of LAX's power comes from green sources.
- ☑ LAWA retrofitted existing buildings with energy efficient lighting fixtures, ballasts and bulbs.
- ☑ ONT closes one of the runways at night, when feasible, to save power.
- ☑ ONT is actively installing occupancy sensors in administration areas and encouraging employees to turn off the lights.
- ☑ LAX's Central Utilities Plant co-generates steam to heat and air-condition LAX's passenger terminals and offices.
- ☑ LAWA has upgraded 80% of the building air handling units with variable speed drives and soft-start controls.
- ☑ Sixty (60) percent of LAWA computer servers have been upgraded to high efficiency servers.
- ☑ Personal computers and monitors are automatically shut off each night.
- ☑ ONT has moved administration to a newer building so the old Terminal 1 does not need to be heated and/or cooled.
- ☑ When appropriate, inefficient fan drives are replaced with variable fan drives.

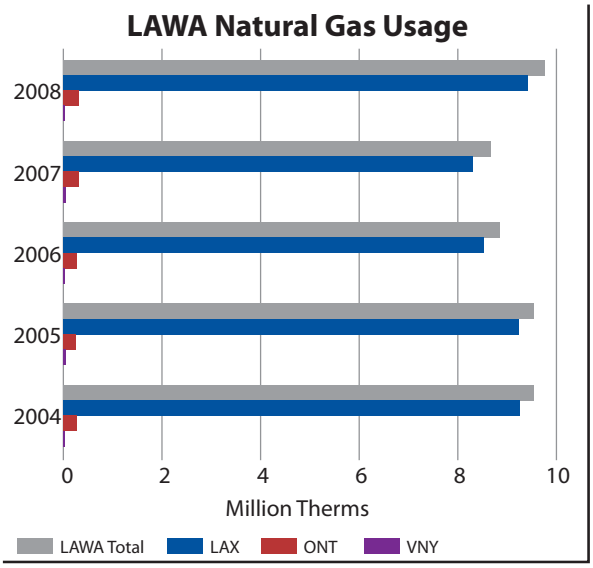
Energy Usage

LAWA uses both electricity and natural gas to fuel its operations. Electricity powers the lights, cools the terminals and offices, allows airplanes to turn off their engines while parked at the gates, and powers other electrical equipment. Natural gas provides electricity and heats the terminals and offices.

From 2004 to 2008, LAWA has increased its overall usage of electricity at both LAX and ONT. These increases can be attributed to an increase in passengers at ONT. At LAX, the increases may be attributed to the electrical conversion

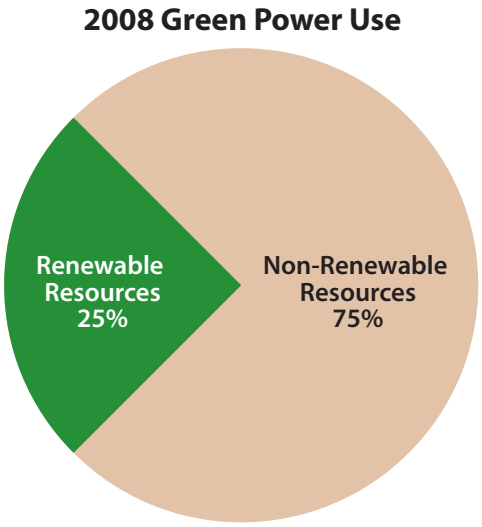
of the arrival gates. The electrical conversion allows aircraft to use electrical power instead of jet fuel to power the air conditioning and electrical systems while parked at the gate.





Green Power

In October 1999, the Board of Airport Commissioners adopted a resolution establishing LAWA's participation in the LADWP's "Green Power for LA" program to purchase electricity from renewable resources. Initiative 4-1 commits LAWA to continue purchasing power from renewable sources. These sources allow LAX to lessen their greenhouse gas emissions and reduce criteria air pollutants. LAX has already met its target for green power since it purchases 25 percent of its power from renewable resources. These renewable resources include wind turbines and hydroelectric power.



Energy Efficient Lighting

Incandescent light bulbs use more electricity and have a shorter use life than compact florescent bulbs. LAWA plans to install energy efficient light fixtures when changing burned out bulbs. LAWA is making progress on Initiative 4-2 by replacing burned out light bulbs with compact florescent bulbs. It is estimated that LAWA has retrofitted 90% of its light fixtures at LAX to higher efficiency light fixtures. Outside the buildings, LAWA has installed light-emitting diodes (LEDs) on runways, signs, and other outdoor lighting, where feasible.

ONT continues to find ways to reduce energy used for lighting. Currently, ONT shuts down one runway most nights to save the energy necessary to keep it

LAWA has installed LEDs on runways, where feasible.

properly lit. Also, occupant sensors are actively being installed in administration areas so lights turn off when there is no one present.

Table 4-2 Energy Conservation and Green Power Initiatives

Initiative 4-1	LAWA will purchase green power from DWP.
Initiative 4-2	LAWA will install energy efficient light fixtures when changing burned out bulbs.
Initiative 4-3	LAWA will install new or increase efficiency of heating and cooling equipment.
Initiative 4-4	LAWA will purchase more energy efficient computer servers and consolidate existing servers.
Initiative 4-5	LAWA will install energy efficient variable speed motor loads during replacement.
Initiative 4-6	LAWA will replace older building-related process energy systems and equipment with energy efficient systems.
Initiative 4-7	LAWA will install Variable Fan Drives, where needed.

Efficient Air-Handling Units

LAWA has installed variable fan drives on 80% of its equipment.

Although LAX produces steam and electricity for heating and cooling from the Central Utilities Plant (CUP), further reduction in energy use is needed. The target of Initiative 4-3 is to increase the efficiency of heating and cooling systems by installing new systems or increasing the efficiency of existing equipment. To this end, LAWA continuously upgrades and performs preventive maintenance on its air handling equipment. As LAWA upgrades and replaces its air handling units, LAWA installs units with variable speed drives and soft-start controls, which is the objective of Initiative 4-5. With variable speed drives, the units operate at the speed required for the load. Without variable speed drives, the units operate at full load when it is not required. The energy savings can be substantial. With soft start controls, the life of equipment increases due to reduced wear. More importantly, the soft start drive starts the equipment at a lower voltage and increases it slowly until the equipment is at the required voltage. This slow start allows the equipment to operate at its optimal capacity and saves energy. The goal of Initiative 4-7 is to install variable fan drives where needed. Currently 80% of fan drives have been converted.

ONT has moved the Administration offices out of unused Terminal 1, which is an old building, with inefficient air handling equipment, into a new building which is more energy efficient. The areas of Terminal 1 that are still used have stand alone HVAC systems so the entire terminal does not have to be kept at a comfortable temperature.

Energy Saving Computer Practices

The goal of Initiative 4-4 is to purchase more energy efficient computer servers and consolidate existing servers. Updating and consolidating servers is a process LAWA is continuously working on to achieve higher efficiency. Currently 60% of computer servers have been replaced. Other servers have been consolidated using VMware.

Moreover, LAWA has set up personal computers and monitors to automatically shut down each night. This practice saves energy and money required to keep computers running when no one is using them. It is estimated that automatic shutdowns may save $50 per computer per year.

Energy Building Related Processes

LAWA is continuously upgrading and replacing broken and outdated equipment. LAWA plans to replace older building-related process energy systems and equipment with more energy efficient systems, which is LAWA's policy when replacing equipment to meet Initiative 4-6.

Objective 5

REDUCE EMISSIONS FROM ALL OPERATIONS INCLUDING STATIONARY AND MOBILE SOURCES.

With the San Gabriel, San Bernardino, and Santa Rosa Mountains ringing the greater Los Angeles Basin, pollutants from airplanes, cars, power generation, and maintenance operations are trapped in the region. These harmful pollutants include particulates from diesel engines, smog producing chemicals, and greenhouse gases (GHGs) from the burning of fossil fuels that can impact climate change. LAWA set the following targets to address reducing each of these pollutants:

Target 5A: Reduce GHG emissions levels to 35% below 1990 levels by 2030.

Target 5B: Reduce VOC emissions 10% by 2010.

Target 5C: Demonstrate Hythane powered vehicles by 2009.

Target 5D: Convert 100% of LAWA fleet vehicles to alternative fuel vehicles (AFVs) or comparable emission vehicles by 2015.

Target 5E: Convert 50% of airport shuttles and 10% of taxis to AFVs by December 2010.

Target 5F: Convert 100% diesel-based ground equipment to electrical equipment or cleanest technology available by 2015.

LAWA has made great strides in working to minimize its air pollution emissions.

Table 5-1 Pollution Reduction Current Practices

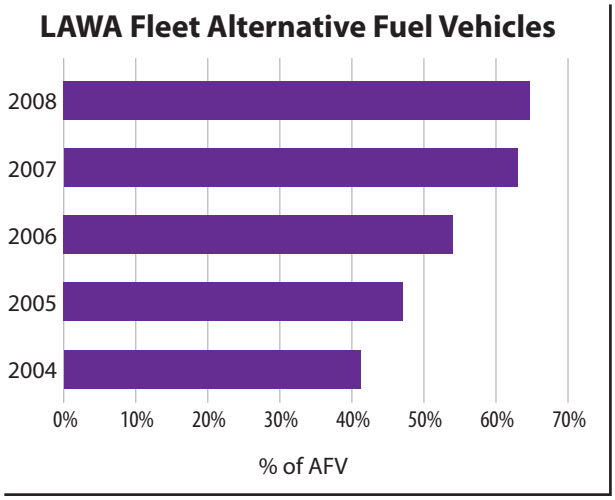
- ☑ LAWA tracks criteria pollutants emissions at LAX and VOC emissions at LA/ONT.
- ☑ 64% of LAWA vehicles are alternative fuel vehicles.
- ☑ LAWA has performed a baseline study of greenhouse gas emissions and has begun plans to meet 35% reduction by 2030
- ☑ LAWA has identified sources of GHG emissions and is establishing a mitigation plan.
- ☑ LAX has begun the conversion of ground service equipment to lower emitting equipment .
- ☑ There is a natural gas station at LAX for LAWA vehicles.

Criteria Pollutant Emissions

As part of LAX and ONT's air emission permits,LAX and ONT are required to track their criteria pollutants from their stationary sources. LAWA operations emit pollutants from a myriad of activities most notably boilers, heaters, painting, fuel dispensing, and cleaning activities. In the Los Angeles Basin, pollutants which are ozone precursors are of particular importance.

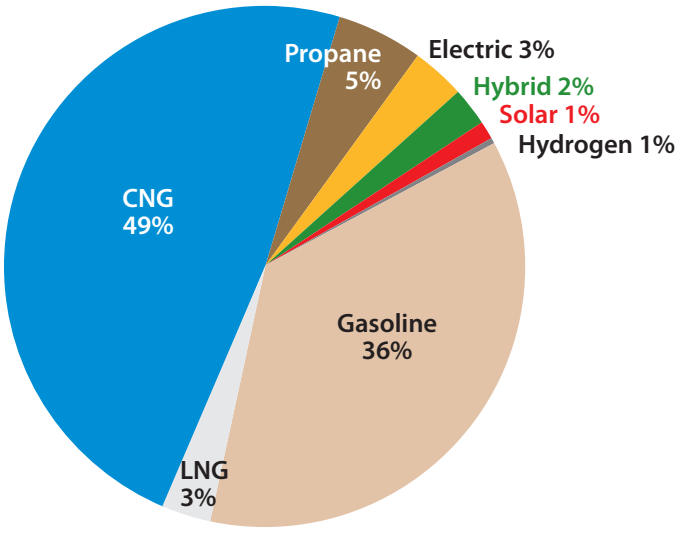
LAWA is making efforts to reduce emissions of volatile organic compounds (VOCs) which are ozone precursors. The goal of Initiative 5-1 is to reduce VOC emissions by specifying low VOC products, such as paints and solvent. Initiative 5-2 is also intended to reduce VOC emissions, with the implementation of a vehicle idling policy for off road diesel vehicles, such as construction equipment. Currently LAWA follows the California Air Resources Board (CARB) standards for specifying low VOC products and vehicle idling policy. The CARB vehicle idling policy limits idling time of off road diesel vehicles to 5 minutes.

Alternative Fuel Vehicles



LAWA began its conversion to alternative fuel vehicles (AFVs) in 1991 when the Board of Airport Commissioners adopted a resolution authorizing the testing of two electric vans for use at LAX. Since then LAWA has made significant progress in converting its entire vehicle fleet to AFVs. LAWA has a fleet of pool vehicles, 84% of which are powered by compressed natural gas, which employees are encouraged to use for meetings and site inspections, instead of their personal gasoline powered vehicles. In May 2008 these vehicles were used more than 300 times. In addition to sedans used by LAWA staff, LAWA has light-duty pick-up trucks, sweepers, dump trucks, transit buses, forklifts, and personlifts that operate on alternative fuels. Currently, LAWA's fleet is comprised of 64% alternative fuel vehicles.

A wide variety of alternative fuels are used to power LAWA's fleet vehicles including: liquid natural gas (LNG), compressed natural gas (CNG), gasoline/electric hybrids, and electric.



LAWA is interested in using cleaner-burning Hythane—a mixture of hydrogen and methane —to fuel its fleet vehicles.

The goal of Initiative 5-4 is to demonstrate a Hythane powered vehicle that could be used for LAWA fleet vehicles. So far, a Hythane vehicle has not been demonstrated. Until 2009 LAWA had a hydrogen station at LAX, however, it has been decommissioned because it was a demonstration station. As a demonstration station, it was only capable of providing hydrogen at

a pressure of 5,000 pounds per square inch (psi); current hydrogen vehicles require hydrogen to be delivered at 10,000 psi. The demonstration hydrogen vehicles have been removed from the LAWA fleet for the time being. LAWA is currently focusing on using CNG and LNG vehicles, since they are more readily available, more economical to purchase than experimental technology, and LAWA already has the infrastructure to fuel them.

LAWA's fleet is comprised of 64% alternative fueled vehicles.

There is currently a natural gas station at LAX to fuel LAWA vehicles. A new CNG station is also being planned on airport owned property for public use. The new station is planned to be in operation by 2010. Initiative 5-10 proposes ONT provide an on-airport turnkey CNG fueling station. Currently ONT is waiting to get approval to proceed and if the CNG station is approved, it could begin operating as soon as spring 2010.

LAWA endeavors to decrease emissions associated with ground transportation to and from ONT. The goal of Initiative 5-5 is for LAWA to develop a program requiring taxis to be alternative fuel vehicles. Beginning July 1, 2010 only taxis using compressed natural gas or other alternative fuels can pick up passengers at ONT. ONT is also attempting to develop a program that would require shared ride vans to be AFVs, which is also the intent of Initiative 5-9. ONT is currently working on a plan that would require operators of large fleets of shared ride vans to buy CNG vehicles when old vehicles have to be replaced.

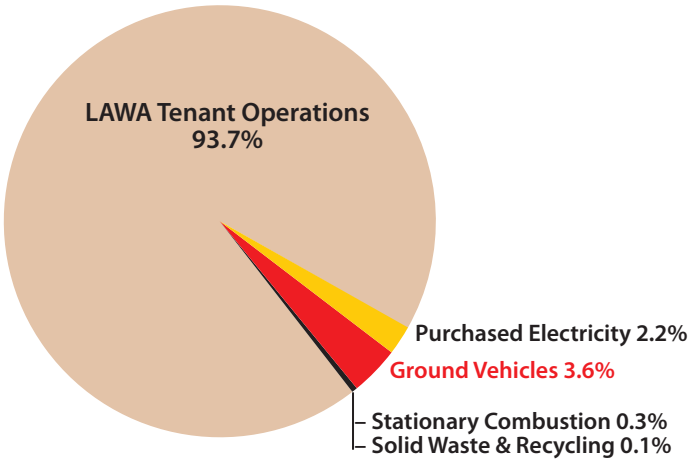
Table 5-2 Pollution Reduction Initiatives

Initiative 5-1	LAWA will specify low VOC products
Initiative 5-2	LAWA will establish and enforce a commercial vehicle idling policy
Initiative 5-3	LAWA will continue its program to upgrade electric power and install pre-conditioned air to LAX gates
Initiative 5-4	LAWA will perform a demonstration of Hythane fuel to power LAWA fleet vehicles
Initiative 5-5	LAWA will work with ONT taxi concessionaires to develop a program to require alternative fuel vehicles for taxis
Initiative 5-6	LAWA will continue to initiate a ground service equipment conversion policy
Initiative 5-7	LAWA will install quick charging stations at all terminals and cargo areas.

Greenhouse Gas Emissions

Under Mayor Villaraigosa's Green LA Plan, LAWA has committed to reducing its greenhouse emissions to 35% below its 1990 levels by 2030. In 2008, LAWA performed a greenhouse gas inventory to determine its baseline greenhouse gas emissions. LAWA is performing the final review of the inventory.

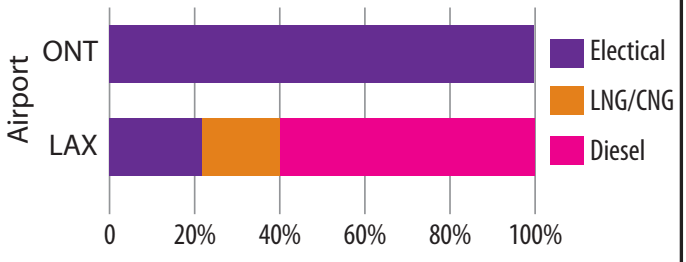
Reduction Needs by Emission Source



For its baseline, LAWA used readily available information from 1990. When 1990 data was not available, LAWA used post-1990 data and trend information to develop its baseline. LAWA used data from 2005 for existing conditions since major construction on the South Runway made 2006 and 2007 unviable. The 2030 GHG forecasts were developed using information from LAWA forecasts, the Southern California Association of Governments forecasts, and the Federal Aviation Administration's Terminal Area Forecast.

LAWA is committed to reducing the greenhouse gas emissions created by its own operations as directed in the City of Los Angeles Green LA Plan. LAWA will continue to convert its vehicle fleet to alternative fuels and purchase 25% of its power from non-GHG emitting sources. Non-LAWA generated emissions make up the majority of greenhouse gas emissions at the airports; therefore, LAWA will work with airlines, tenants, and concessionaires to reduce their greenhouse gas emissions beyond the 35% City of Los Angeles goal.

Ground Service Equipment Fuel Type



Ground Service Equipment

Ground service equipment (GSE) includes tugs, baggage loaders, catering trucks, and fueling vehicles. The goal of Initiative 5-6 is to implement a ground service equipment conversion policy. At ONT, 100% of tenants' GSE are electrically powered. At LAX, 41% of tenants' GSE are powered by electricity or natural gas.

Gate Electrification

In order to reduce the harmful pollutants from combustion of jet fuel, LAWA is upgrading gates to supply electric power and preconditioned air to airplanes during loading and unloading. By furnishing gates with these amenities, planes are able to shutoff auxiliary power so they do not unnecessarily burn jet fuel

while sitting at the gate. The objective of Initiative 5-3 is to continue upgrading the gates at LAX. As of 2005, 100% of the gates at ONT and LAX have electric power which allows planes to shutoff auxiliary power. Also, 55% of LAX and ONT gates use pre-conditioned air.

Quick Charge Stations

LAWA has installed quick charge terminals at gates and cargo areas to promote the use of electric vehicles. The aim of Initiative 5-7 is to install quick charging stations at all terminals and cargo areas. Severe economic conditions created uncertainties for airlines and prevented the installation of any new charge stations in 2008.

Objective 6

REDUCE SINGLE OCCUPANCY TRIPS TO, FROM, AND WITHIN LAWA AIRPORTS.

In 2007, approximately 68 million people traveled through LAX, ONT, VNY and PMD. Along with the approximately 70,000 people who work on or near the four airports, these facilities are convergence points for commuters, employees, and passengers. Moreover, LAX's air cargo system handled more than 3.4 million tons of goods in 2008—ranked 5th in the United States for air cargo movements. LAWA needs to seek efficiencies in its on and off-site transportation systems. To this end, LAWA is committed to reducing the number of single occupancy trips with the following targets:

In 2006, LAWA received a Gold Medal in the USEPA's Best Workplaces for Commuters Race to Excellence.

Target 6A: Increase Rideshare participation to 30% by 2010.

Target 6B: Add six new FlyAway locations/stations by 2015.

Target 6C: Build the LAX Consolidated Rental Car Facility by 2015.

Target 6D: Require LAX off-site airport shuttles to reduce their trips by 35% from a 2004 baseline by 2008.

Target 6E: Develop a LAX Centralized Delivery Facility by 2010.

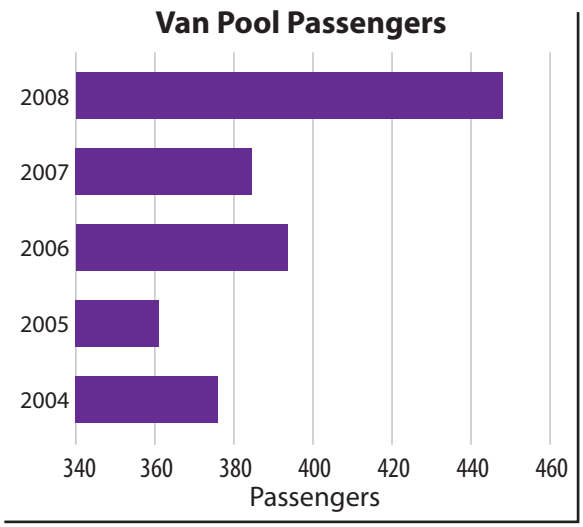
LAWA has taken the following steps to reduce single occupancy vehicle trips.

Table 6-1 Trip Reduction Current Practices

- ☑ 25% of LAWA employees participate in the Rideshare Program.
- ☑ LAWA instituted a nine-80 work schedule for employees.
- ☑ LAX has a cafeteria for LAWA and tenant staff.
- ☑ LAX established a FlyAway program for Van Nuys, Westwood, and Union Station.
- ☑ FlyAway shuttle schedules are continuously being monitored and updated.
- ☑ ONT has a Consolidated Rental Car Facility.
- ☑ LAX established a Hotel Shuttle and Rental Car Consolidation Program.
- ☑ LAX Car Rental Shuttles have reduced their trips by 58% since 2004.
- ☑ LAX has a an extensive Traffic Control Program Traffic Operations Center to facilitate traffic flow in the CTA.
- ☑ www.lawa.org has traffic alerts for LAX and a link to LADOT real-time traffic.
- ☐ LAX has a cell phone waiting lot.

LAWA Rideshare Program

LAWA's Rideshare Program has eliminated millions of commuter miles and reduced congestion during peak morning and evening commuting hours. The Rideshare Program consists of 63 subsidized vanpools that carry between 6 and 8 people and 75 registered carpools. LAWA provides the commuter van, pays for maintenance and fuel for each vanpool. LAWA staff pays a monthly



fare to participate in the vanpool. These vans provide rides for over 400 LAWA staff and tenant employees on a daily basis. There is currently a waiting list of twenty-three groups of riders waiting for vanpool vehicles to become available. The goal of Initiative 6-1 is to increase vanpool ridership by decreasing the number of employees to start a vanpool. However, at this point it is not necessary to reduce the number of employees to start a new vanpool since there are currently more groups than vanpool vehicles. If budget allows, LAWA plans to add 8 more vehicles for vanpools by June 2010.

In May 2009, LAWA received its 13th consecutive Regional Rideshare Diamond Award. LAWA received the Innovative Rideshare Program Award for its Redeployment Transportation Assistance (RTA) Program. The Regional Diamond Awards Program showcases rideshare programs of employers who reduce traffic congestion by providing their employees with a full range of rideshare commuter options, services and programs. The program's co-sponsors are the Los Angeles County Metropolitan Transportation Association, the Ventura County Transportation Commision and the Orange County Transportation Authority.

In 2009, LAWA won its 13th consecutive Regional Rideshare Diamond Award.

The award honored LAWA for its efforts to assist redeployed employees with their new commuting efforts. Redeployment became necessary because air travel decreased nearly 40% in 2008 and 2009. To avoid layoffs, LAWA reassigned employees at ONT and PMD to other work locations. Rideshare distributed memos to each redeployed employee to remind them of the availability of its services and held in-person meetings with them to answer questions, provide customized transit trip plans and vanpool formation assistance. Through the RTA Program, LAWA gained two new vanpools with 13 new vanpoolers, three new carpoolers and five new transit riders from among the 50 redeployed employees. This represented an overall commute mode shift of 42 percent from driving alone to ridesharing.

In addition, LAWA has 75 registered carpools which carry 2 or more people to LAX, ONT, and VNY. The carpools are provided premium parking at LAX, ONT, and VNY. For all registered carpools that commute at least 50% of their working days using the Rideshare Program, LAWA offers one free car wash per month and one free car detailing per year. Each month workers who carpool at least 75% of their work days and turn in a tracking form to the Rideshare Office are entered to win one of five $50 fuel cards. The intent of Initiative 6-12 is for LAWA to track and make more efficient use of carpools. The employee incentives

encourage employees to register carpools, which helps the Rideshare Office track carpools. Employees can get assistance in finding a carpool through the Rideshare Office or by using www.ridematch.org.

The U.S. Environmental Protection Agency considers LAWA's Rideshare Program to be one of the most comprehensive programs offered by an employer in Southern California. In 2007 it saved 480,000 gallons of gasoline.

Table 6-2 Trip Reduction Initiatives

Initiative 6-1	LAWA will investigate the feasibility of reducing the number of LAWA staff to start a vanpool.
Initiative 6-2	LAWA will investigate the feasibility of working more flexible work schedules, including telecommuting options.
Initiative 6-3	LAWA will expand its bicycle facilities for easier storage of bicycles.
Initiative 6-4	LAWA will begin to develop a video conferencing/Net Meeting system to minimize travel of LAWA staff to different airport offices.
Initiative 6-5	LAWA will open a cafeteria near LAX for LAWA staff.
Initiative 6-6	LAWA will continue to develop FlyAway shuttles to LAX.
Initiative 6-7	LAWA will investigate improving peak scheduling of the FlyAway shuttles for more convenient use of the shuttles.
Initiative 6-8	LAWA will continue to plan the Consolidated Rental Car Facility at LAX.
Initiative 6-9	LAWA will work with off-airport parking lots to develop programs to reduce the number of trips around LAX's Central Terminal Area.
Initiative 6-10	LAWA will increase the quantity of traffic information on www.lawa.org
Initiative 6-11	LAWA will develop a Centralized Delivery Facility at LAX.
Initiative 6-12	Track and make more efficient use of pool cars.

Flexible Work Schedules

Initiative 6-2 commits LAWA to investigate the feasibility of working more flexible work schedules, including telecommuting options. LAWA employees are encouraged to work a "9/80" or "4/40" work schedule in order to reduce congestion and commuter miles. In 2008, the "9/80" and "4/40" work schedules combined saved approximately 750 round trips. Currently the telecommuting program has not been developed. LAWA will need to further investigate the feasibility of telecommuting.

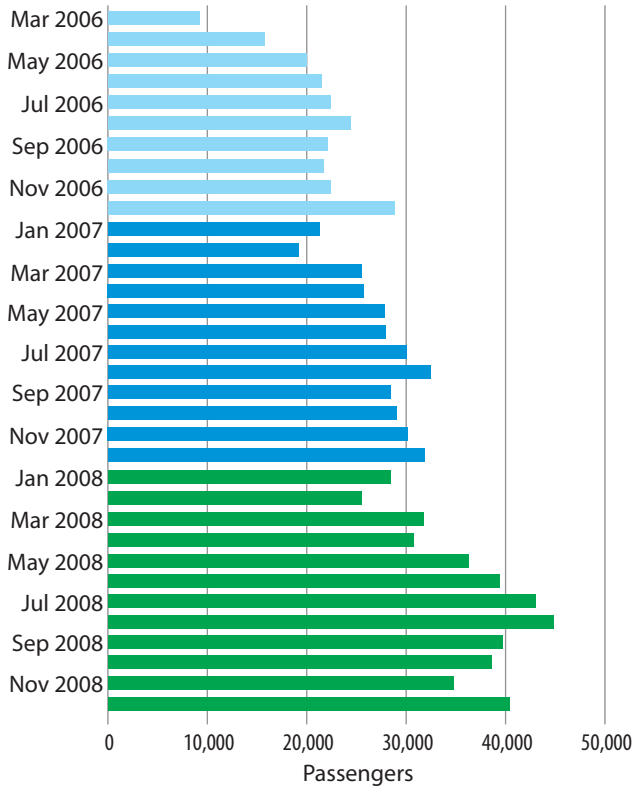
Expanding Bicycle Facilities

LAWA provides bike lockers, showers, and a "Bike Valet" service for LAWA staff who ride their bikes to work. The aim of Initiative 6-3 is to increase bicycle facilities for easier storage of bicycles. Currently bike lockers are being moved to the areas where they are most needed and a new bike rack will be installed in June 2009. In a given week 38 round trips to LAX are made by bicycle, which projected over a year's time means almost 2,000 vehicle trips are saved. Every year, LAWA promotes Bike to Work Week with free breakfast, T-shirts and other giveaways for staff who take part in the week's events. In 2009 59 riders participated in the program.

Video Conferencing/Net Meetings

Initiative 6-4 calls for LAWA to begin developing a video conferencing/Net Meeting system to minimize travel of LAWA staff to different airport offices. LAWA has implemented Video Conferencing capability for one to one meetings. This capability is important since LAWA personnel are located at different airports and in many different locations within the airports. LAWA hopes to minimize travel miles during the work day and the time to travel between buildings and airports. Moreover, LAWA has the capability to support large video conferences with the purchase of cameras, monitors, and microphones for the conference rooms. LAWA will begin to evaluate if video and audio equipment should be purchased for specific conference rooms. In addition, LAWA's Gig-e network, which is being installed, will allow LAWA to deploy services such as video conferencing.

LAX/Union Station FlyAway Ridership

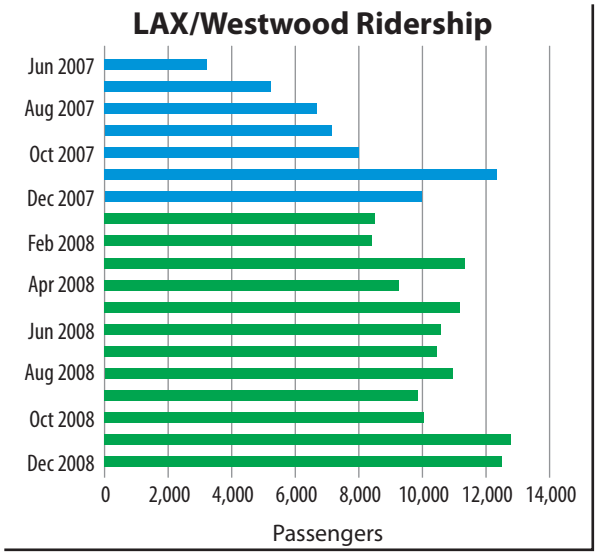


Cafeteria

Due to the high concentration of employees who work at LAX, LAWA committed to open a cafeteria near the Airport so that LAWA staff do not need to travel by car to Sepulveda and Century corridors for meals. In 2008 the cafeteria, The World Way West Grill, opened along World Way West (Initiative 6-5). The Grill provides a convenient location for employees to get breakfast, lunch, and snacks. In addition, LAWA employees receive discounts at terminal restaurants and the cafeteria at the Theme Building.

FlyAway Program

LAWA designed the FlyAway Program to provide passengers with an alternative, yet convenient, way to reach LAX while



at the same time reducing the number of single occupancy trips to and from LAWA airports. At LAX, three FlyAway shuttles from Van Nuys, Union Station and Westwood bring passengers to LAX. Since its inception in 1975, the Van Nuys FlyAway has transported 23 million passengers.

The Union Station FlyAway was instituted in March 2006. In its first twenty two months, the Union Station FlyAway transported over 500,000 passengers. This total is a threefold increase over its projected annual total ridership. The Union Station FlyAway has seen a continuous monthly increase since its inception. In 2008 the Union Station FlyAway transported over 400,000 passengers.

FlyAway participation increased by 200,000 in 2008.

The Westwood FlyAway began ferrying passengers from Westwood to LAX in June 2007. In 2008, the Westwood FlyAway transported approximately 125,000 passengers. Like the Union Station FlyAway, the Westwood FlyAway has seen a continued increase since its inception. In 2008, the three FlyAway shuttles transported over 1.5 million passengers to and from LAX – an increase of 200,000 passengers from 2007.

LAWA is making progress on Initiative 6-6, which is the continued development of FlyAway shuttles. In 2009, a fourth FlyAway is planned to begin operating between Irvine and LAX. Also, FlyAway schedules are continuously being monitored to improve peak scheduling for more convenient use of the shuttles, as described by Initiative 6-7. The FlyAway increased the number of shuttles in the early weekday mornings to meet demand.

Consolidated Rental Car Facility

Since 1999, ONT has operated a Consolidated Rental Car Facility (ConRac) that houses eight rental car companies with tram service from the terminals to alleviate traffic congestion on the terminal roadways. Initiative 6-8 commits LAWA to planning a consolidated rental car facility at LAX, which LAWA has included in its current master plan.

LAX Shuttle Trip Reduction

A Mandatory Hotel Shuttle Trip Reduction Program began in June 2006. The program set up a plan to ultimately reduce shuttle trips to 35% below the 2004 baseline. Additionally, the program specified fines for hotels that exceeded their allowed number of trips per year. The hotel shuttle trip reduction program has been very successful, the number of 2008 trips were 58% below 2004 levels. Success of the program is partly due to the consolidation of hotel shuttle

In 2008, the number of trips by hotel shuttles decreased by 58% compared to 2004 levels.

services. The consolidation program incorporates the shuttles of nine Gateway LAX hotels along the Century Boulevard corridor and provides one bus route for every three hotels depending on demand and location.

In January 2003, the Board of Airport Commissioners approved on-airport concessions for ten rental car companies at LAX. These ten concessionaires are the only firms permitted to provide curbside pickup and drop-off at passenger terminals. The program requires on-airport rental car operators to reduce the number of monthly courtesy vehicles trips by at least 20% below 2004 numbers. The Rental Car Traffic Movement Plan was implemented in 2005. Under the plan, each rental car company is allotted a certain number of courtesy trips to the Airport in a year and a fine was set for exceeding the allocated number of trips. The rental car companies have made a significant reduction in the number of rental car shuttle trips.

LAWA staff will work to develop a trip reduction plan similar to those for hotel and rental car shuttles for parking lot operators (Initiative 6-9).

LAX Traffic Mitigation Measures

LAX operates a Traffic Operations Center that consists of Closed Circuit Television Cameras that view real-time traffic flows within the CTA. The cameras allow staff to identify unusual incidents which are causing traffic delays and determine whether adjustments are needed to the traffic signals.

Airport traffic information is broadcasted from the Traffic Operations Center on Radio Station AM 530 and on www.lawa.org/lax/AiRadio.cfm. The radio station provides real-time information on traffic and availability of on-airport parking. In addition, LAX utilizes portable and fixed electronic message boards to provide real-time information so motorists can make knowledgeable driving decisions. Eight portable changeable message signs are available at LAX during peak travel times or for special occurrences. Initiative 6-10 is to increase the quantity of traffic information on www.lawa.org. In 2008, the information available on the website was improved with the addition of traffic alerts and a link to LADOT real-time traffic maps.

Central Delivery Facility

LAWA committed to develop a Centralized Delivery Facility at LAX (Initiative 6-11). The facility will reduce the number of trucks in the Central Terminal Area and prevent delays due to commercial trucks stopping in passenger areas. LAWA is exploring options for the Centralized Delivery Facility.

Objective 7

INCORPORATE SUSTAINABLE PLANNING, DESIGN, AND CONSTRUCTION PRACTICES INTO ALL AIRPORT PROJECTS.

LAWA is continually evaluating and updating its facilities to meet the changing air travel and cargo needs of the region and to provide safe airport operations. Over the next five to ten years, a wide range of projects will be planned, designed and executed at LAWA's airports, including civil landside and airside activities, renovation of existing buildings, construction of new facilities and general construction and maintenance activities; specifically the LAX Development Program. These projects provide LAWA with tremendous opportunities to incorporate sustainable planning, design and construction practices into its future facilities and operations. LAWA has set the following targets:

Target 7A: Implement the Airport Sustainable Planning, Design and Construction Guidelines for all projects begun on or after February 2008.

Target 7B: Incorporate green standards into all aspects of LAWA's planning, design and construction process by 2009.

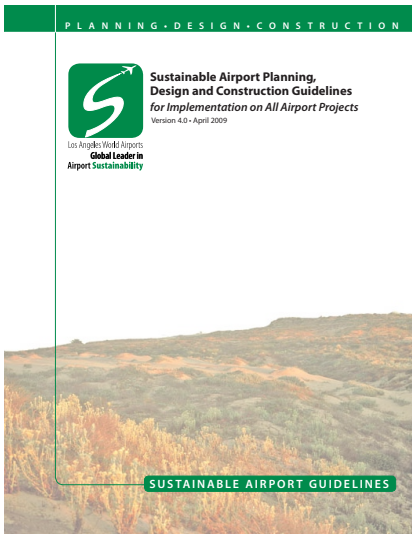
LAWA has developed Sustainable Guidelines for all planning, design and construction projects.

Table 7-1 Sustainable Design Current Practices

- ☑ LAWA has developed and is implementing the Sustainable Airport Planning, Design and Construction Guidelines for LAWA-sponsored projects.
- ☑ LAWA requires LEED® Accredited Professionals on planning, design and construction projects.
- ☑ LAWA is incorporating green standards into LAWA's planning, design and construction processes.

Airport Sustainable Planning, Design and Construction Guidelines

In January 2007, the Board of Airport Commissioners committed LAWA to incorporate the highest possible LEED® standards in future construction projects at LAWA's airports. In addition, LAWA's development and implementation of the Sustainable Airport Planning, Design and Construction Guidelines (Guidelines) strengthens its commitment to become the "global leader in airport sustainability." LAWA released a second version of the Guidelines in April 2009 and it is available to the public on LAWA's website.



The Guidelines provide a comprehensive set of airport specific performance standards that consider the unique opportunities and obstacles that arise during typical airport projects when incorporating sustainability. The Guidelines include performance standards for planning, design and construction activities that integrate sustainability strategies into the project work.

The Guidelines apply to projects that involve general construction and maintenance, buildings and facilities, roads, runways, taxiways, infrastructure and other civil projects, both airside and landside. To assist in facilitating the integration of sustainability, the Guidelines include a rating system to measure and document the level of a project's success in achieving the requirements of the performance standards. This "LAWA-Sustainable Rating System" will be used to track progress and document achievements in implementing the sustainable planning, design and construction practices. Every project will receive a ranking by LAWA depending on the level of sustainability reached in planning and design and/or construction. The Guidelines will be modified as needed to ensure the innovation and cutting-edge intention of the document through the implementation experience, environmental trends, technological advances and new regulatory requirements.

The Guidelines also provide a model for incorporating sustainable practices that can be used by other organizations in the City of Los Angeles as well as other airports nationwide. Other airport organizations including San Francisco International Airport (SFO) and MassPort adopted the Guidelines for use in their projects.

Oversight Committee

LAWA has begun to review LAWA-sponsored projects using the implementation process described in the Guidelines. LAWA created an Oversight Committee to act as a steward for the Guidelines and provide direction on the implementation in a consistent manner. This committee's responsibilities include recommending modifications to the Guidelines on an as needed basis through their implementation experience and knowledge of environmental trends, technological advances and new regulatory requirements.

The LAX Development Program has taken an active role in implementing the Guidelines for all of the projects. Each individual project will use the Guidelines to design, build and update buildings that meet the highest sustainable standards. LAX wants all these projects to be examples for all projects at all LAWA airports.

Table 7-2 Sustainable Design Initiatives

Initiative 7-1	LAWA will prepare a Green Standard Specifications for use in conjunction with the Guidelines which will apply to all projects.
Initiative 7-2	LAWA will incorporate the Green Standard "New Green Book" into tenant developments.
Initiative 7-3	LAWA will require LEED®-accredited professionals on planning, design, and construction projects, where applicable.

Table 7-2 Sustainable Design Initiatives (cont.)

Initiative 7-4	LAWA will train LAWA employees on the correct use of the Airport Sustainable Planning, Design, and Construction Guidelines.
Initiative 7-5	LAWA will provide a workshop for all interested tenants and consultants on the requirements of the Guidelines.

LEED® Accredited Professional

As part of the Guidelines, LAWA awards points to projects that have a LEED® Accredited Professional (AP) on their planning, design and construction teams (Initiative 7-3).

Sustainability Training

Two initiatives (Initiative 7-4 and Initiative 7-5) discussed in the Sustainability Plan involve training LAWA employees and providing workshops for tenants and consultants on the correct use and the requirements of the Guidelines. There have been some training sessions for select personnel at LAWA regarding the use and requirements of the Guidelines. These sessions were held for those involved in the implementation of the Guidelines (i.e., Oversight Committee members, etc.) in order to begin reviewing projects. Additional workshops will be scheduled as LAWA further implements the Guidelines.

Green Specifications

Since the Guidelines allow flexibility in how project teams include sustainable features in the projects, LAWA has not begun to incorporate specific green specifications into their planning, design and construction processes. LAWA believes that allowing design and construction teams flexibility in developing specifications, LAWA will achieve the objectives of their Vision Statement. LAWA will review Objective 7-2 and Initiatives 7-1 and 7-2 as the Guidelines are more thoroughly implemented.

Objective 8

PROMOTE SUSTAINABILITY AWARENESS TO AIRPORT EMPLOYEES AND THE GREATER COMMUNITY.

Aligned with the triple bottom line approach to sustainability, LAWA believes that a sustainable organization looks beyond environmental stewardship and addresses economic growth and social responsibility through interaction with the surrounding community. Through its Sustainability Vision and Principles, along with its long-standing policies that focus on creating beneficial economic impacts, improving labor and community relations and providing leadership within the aviation community, LAWA is committed to making its facilities great places in which to work and travel. LAWA set the following targets to make staff, tenants and passengers aware of its sustainability programs:

Target 8A: Provide training to 100% of LAWA staff to make them aware of sustainability programs by December 2008.

Target 8B: Offer formal training to 100% of LAWA tenants and consultants to make them aware of LAWA's sustainability programs by December 2008.

LAWA is continuing to make LAWA staff, tenants, consultants and community aware of its sustainability program (Initiative 8-1). The Environmental Services Department communicates LAWA's sustainability efforts in its monthly newsletter. As part of a weekly update on airport activities communicated by Gina Marie Lindsey to LAWA staff, sustainability activities are brought to LAWA staff's attention. LAWA plans to perform training to for LAWA staff in 2009. LAWA did not meet the specific targets of this objective but it has continued to communicate its sustainability efforts to staff in less formal manners.

Table 8-1 Sustainability Awareness Current Practices

- ☑ LAWA has developed educational opportunities for local schools.
- ☑ LAWA has continued to develop community outreach programs for residents near the airports.
- ☑ LAWA provides programs to protect the health and safety of its tenants, staff and passengers.
- ☑ LAX has continued to expand its public arts program.

Through its interaction with its staff, tenants, passengers and community LAWA is providing ways to make the airports more sustainable places.

Educational and Charitable Programs

Throughout its history, LAWA staff has taken steps to foster close relationships with local educational and charitable organizations. These programs include visiting schools, creating LAWA community facilities and donating time and materials to these organizations. LAWA is committed to the science education of future leaders and encouraging aviation-related career and training

opportunities. LAWA wants to lay the foundation for a bright future for today's students. As described in the Sustainability Plan, LAWA staff continues to be involved with the following programs:

- Aviation Career Education (ACE) Academy
- Gateways Internship Program
- AIRCademics Passport to Art Program
- Wings to Fly Mentoring Program
- Job Shadow Day

Other community outreach programs that LAWA participates in include:

Los Angeles Unified School District Aircraft Mechanics School

The Los Angeles Unified School District Aircraft Mechanics School is located at VNY and is a branch of the North Valley Occupational Center – Aviation Center (NVOC-AC). It enables students to earn certification in general airframe and power plant mechanics to become mechanics, instrument technicians, inspectors and fabricators. The program curriculum, approved by the Federal Aviation Administration, consists of 47 subject areas to prepare students for a wide array of jobs in the aviation-aerospace industry. The NVOC-AC is operated by the Los Angeles Unified School District's Division of Adult and Career Education.

Flight Path Learning Center of Southern California

In 2002, the Los Angeles Board of Airport Commissioners approved Flight Path to operate an educational facility and museum in the LAX Imperial Terminal. The Learning Center is dedicated to recognizing and preserving Southern California's aerospace heritage as well to guiding individuals and young people and their educational paths towards careers in science and technology with emphasis on aviation/aerospace. It provides Flight Path with an opportunity to reach thousands of residents and visitors to Los Angeles with historical exhibits, educational tours and programs, research facilities and community events. The Learning Center is also the only aviation museum and research center situated at a major airport and the only facility with a primary emphasis on contributions of civil aviation to the history and development of Southern California. As part of the Learning Center, two annual scholarships are granted for high school students who are interested in aviation, aerospace or aeronautics careers.

LAWA's Community Relations Division also offers tours at the Flight Path Learning Center Museum every Thursday for second through fourth grade students. The students have an opportunity to tour the museum, experience flying by operating a flight simulator and listen to the live broadcast of the air traffic controllers in the tower.

Health and Safety

LAWA continues to provide a safe and healthy environment for its staff, tenants and passengers. LAWA has a number of current programs to enhance the safe environment of LAWA, including:

Table 8-2 Sustainability Awareness Initiatives

Initiative 8-1	LAWA will provide sustainability education and training to LAWA employees, its tenants and consultants.
Initiative 8-2	LAWA will expand its public arts program into new spaces and with new programs
Initiative 8-3	LAWA will improve communication to its passengers on its sustainability program.
Initiative 8-4	LAWA will develop an internal and external sustainability communication strategy and plan.

Airport Police

Since 1946, the LAWA police have been protecting the people who work and visit at LAWA's airports. In 1968, the California legislature granted the LAWA police Peace Officer authority. The airport police division is the fourth largest law enforcement agency in Los Angeles County and has the largest number of canine bomb detection dogs at an airport in the United States.

External Defibrillators

In 2001, the Board of Airport Commissioners approve the purchase of fifty Automatic External Defibrillators (AED) for LAX. LAWA now has 94 AEDs in the terminals at the LAWA airports. In addition, the AED cabinets are wired to the telecommunication center so that LAX emergency personnel are notified when an AED is used. The units are strategically located at security posts in the terminals beyond passenger screening stations and on bicycle patrol units.

Emergency Drills

The Office of Intelligence and Emergency Operations has responsibility for developing proper coordination of law enforcement and public safety activities to reduce LAWA's vulnerability to a terrorist event or catastrophic emergency. The office manages several specialized units including the Emergency Services Unit, Canine Detail, Vulnerability Assessment and Analysis Unit, Critical Infrastructure Protection Union, Dignitary Protection Unit and the Security and Credentials Section.

Medical Personnel

A first aid station is located on the departure level of the Tom Bradley International Terminal. It is open every day from 10:00 a.m. to 10:00 p.m.

Art Exhibits Program

In accordance with Initiative 8-2, LAWA continues to expand its public arts program into new spaces and with new programs. LAWA collaborates with the Los Angeles Department of Cultural Affairs to provide public art projects at LAWA airports. The purpose of the Art Exhibits Program at LAX and ONT is to educate and entertain the traveling public, while emphasizing a cultural experience highlighting what makes Los Angeles unique and interesting. From the lighted pylons that welcome the LAX community as they drive down Century Boulevard to the smaller exhibition locations at ONT, LAWA provides many spaces to introduce local and regional artists to the LAWA community and provide a more aesthetically pleasing space for the LAWA community.

LAX has public arts locations in Terminal 1 at the arrivals and departures levels, Terminal 2 at the departures level, Terminal 3 at the arrivals level and in the Tom Bradley International Terminal at the arrivals level. ONT also has temporary art exhibits in Terminals 2 and 4 at the departures levels. The temporary art exhibits are typically on display for four to six months and highlight local and regional artists using a variety of media.

The current exhibits include wearable art at ONT. At LAX Terminal 3, the exhibit presents works by artists that preserve and conserve an important moment in time for themselves. Group exhibits that explore layering and additive materials are exhibited in Terminal 1 at LAX. Exhibits by Los Angeles artists that illustrate how they see Los Angeles are presented in the Thomas Bradley International Terminal.

There are no current plans to extend the Art Exhibit Program to VNY. However, LAWA is considering installing temporary exhibit space at the FlyAway center across the street from VNY in the lobby where people wait for the shuttle buses. This temporary exhibit space is in addition to the permanent art installation in front of the FlyAway building.

Internal and External Communication

Initiative 8-3 commits to improving communication to LAWA's passengers on its sustainability programs and Initiative 8-4 commits to developing an internal and external sustainability communication strategy and plan. Through the outreach programs of the Community Relations Division and the Public Relations Department, LAWA is taking steps to increase the communication to their employees, passengers, visitors and the surrounding community.

Through the Community Relations Division, LAX develops and implements ongoing community outreach programs designed to optimize effective two-way communication with residents, visitors and passengers. One of these programs is the Website Infoline, which ensures passengers and visitors receive the

information they need to make their local travel experience a positive one by responding to questions and comments submitted through the LAWA webite. The Public Relations Department also supports LAWA's goals by establishing and maintaining effective two-way communications with the traveling public, news media, the travel and tourism industry and other stakeholder audiences regarding the policies, procedures, services, operations, development and future plans of LAWA and LAX. The department executes the ongoing passenger services communication program that includes:

- Holding more than 65 special events annually on topics of interest to travelers;
- Publishing traveler's guides, such as All About LAX, Smart Travelers Tips, LAX Guide for Travelers with Disabilities and a monthly online newsletter, LAX Connection;
- Conducting outreach to thousands of travelers at public events and travel industry shows; and
- Managing the 24-hour, LAX AiRadio 530 AM station that provides up-to-the-minute status on traffic, parking, security and other airport conditions.

LAWA also executes an ongoing environmental communications program to demonstrate LAX's commitment to becoming a sustainable green airport. Public Relations staff exhibit at environmental events and forums. The department uses case histories and media story placements to show how LAX leads the aviation industry using the latest techniques in source reduction and recycling, alternative fuel vehicles, water and energy conservation, air quality and noise management.

Objective 9

INTEGRATE SUSTAINABLE PRACTICES INTO INTERNAL POLICIES, BUSINESS PROCESSES, AND WRITTEN AGREEMENTS.

During the planning stage of the Sustainability Performance Improvement Management System (SPIMS) process, LAWA performed a sustainability assessment of its policies and written agreements. As evidenced by the numerous existing and planned programs detailed in this report, LAWA is committed to sustainability improvement. For the last 30 years, LAWA has performed countless activities that have benefited the environment, the local economy and society. As LAWA implements the SPIMS process, LAWA acknowledges that it needs to integrate sustainability in a systematic manner. Sustainability will become part of LAWA's business processes and written agreements through the implementation of the SPIMS. LAWA has set the following target:

> **Target 9A**: Include sustainability requirements in all written agreements by December 2008.

LAWA placed sustainability requirements into written agreements for major projects and new concessionaires in the fall of 2008. However, LAWA has not put sustainability requirements in existing concessionaire leases and for smaller projects at the airports.

Table 9-1 Sustainable Practices Current Practices

- ☑ LAWA has programs that assist local community members to find jobs and employment training, including the Business and Job Resources Center, the Inglewood Job Center, the First Source Hiring Program and the Disadvantaged Business Enterprises policy.
- ☑ LAWA opened a job center in Inglewood to assist in the hiring of local employees at LAX.
- ☑ LAWA has fully implemented the First Source Hiring Program pilot program with 100 employers at LAX in July 2009.
- ☑ Many of the Community Benefits Agreement projects have been addressed or implemented.
- ☑ LAWA has a significant ethics-training program for their staff.
- ☑ The Board of Airport Commissioners adopted LAWA's Sustainability Vision and Principles.
- ☑ LAWA has begun to place sustainability language into the procurement process.
- ☑ Sustainability requirements are included in written agreements for major projects and new concessionaires.
- ☑ LAWA implemented an Environmental Management System (EMS) for ONT's Construction and Maintenance (C&M) Division in April 2009.
- ☑ LAWA has begun to expand the EMS to LAX's C&M Division.

Jobs and Employment

LAWA's Business and Job Resources Division provides employment and educational outreach services to local community-based organizations and community residents. The Division provides information regarding employment opportunities to job seekers who are interested in employment with airport tenants, surrounding airport companies and other private companies. LAWA staff assists potential employers by providing them with resumes of job seekers whose skills match the needs of the potential open positions. Some of the programs implemented include the following:

Business and Job Resources Center

The Business and Job Resources Division was tasked with strengthening LAWA's relationships and communications with the community. In support of this mandate, the Division established the Business and Job Resources Center (BJRC) in October 2006, which coordinates job-training programs. Using surveys, the BJRC asked LAWA employees about their job training needs. With this information, the BJRC is able to find training providers willing to provide training at the work site or at a convenient location near LAX. The BJRC works with local Work Source Centers and airport employers to enhance community access to airport jobs. LAWA has collaborated with local agencies to develop a job-training program for local LAX residents so that local residents become qualified for LAX-based jobs. Some of the new training courses that will be offered to vendors and LAWA staff include conversational Spanish for concessionaires' staff and Manager/Leadership Training in the areas of communication, coaching and interviewing with Duty Free Shops (DFS).

The BJRD worked with Loyola Marymount University (LMU) and LAWA's Landside operations to train 150 shuttle bus drivers for Servisair. LAWA provided training in anger management, customer service, retail sales and auto mechanics.

BJRD partnered with the Los Angeles Community College District to train 20 - 25 high school and college interns. This program has had two years of successful training. The Community College District offered courses in life and work skills, customer service, time management and work ethics.

As of May 2009, the job training program has referred 401 candidates, with 276 candidates completing training with 15 training providers. The candidates that completed the training include new employees as well as incumbent workers. These numbers exceed the BJRD's June 2009 job-training goal of 275 candidates completing training.

Inglewood Job Center

In January 2008, LAWA opened the Hire Inglewood Program (HIP) at Inglewood City Hall to facilitate the hiring of local community residents who live close to LAX. The purpose of the program is to provide information about jobs in con-

struction, customer service, sales and retail and projects and other resources at LAWA through public computers and knowledgeable staff on-site. Applications may be completed in the new HIP office and residents will be able to do job searches, prepare resumes and to research job-training opportunities at the facility. The staff will assist in preparing job applications and will deliver the applications to the appropriate location at LAWA. Prospective employees will also be provided with information about job training and internship opportunities, which will be provided through partners in Inglewood and locations in other cities. HIP also provides services to business owners by means of literature and information explaining how to do business with LAWA. It operates three days a week on Mondays, Wednesdays and every other Friday from 10:00 a.m. to 4:00 p.m.

First Source Hiring Program

LAWA received approval from the Federal Aviation Administration (FAA) in October 2006 to begin implementation of its First Source Hiring Program (FSHP), which ensures that local residents are referred for priority interview consideration. The program started in December 2006 with one participating company—Hudson News— and has now grown to over 80 companies. Moreover, LAWA began collaborating with 56 local work source centers, local employment agencies and community and faith-based organizations to assist in referring prescreened, qualified people to LAWA employers.

As of May 2009, the First Source Program has confirmed over 600 hires.

As of May 2009, 2,717 candidates were referred for approximately 952 airport positions with 71 LAWA tenants with 603 confirmed hires; however, the catual number of confirmed hires may be higher. The program's hiring goals were to have 250 confirmed hires through June 2008, which it achieved, and 675 hires through June 2009. The program is on track to achieve this goal as well.

The FSHP has been working closely with both the Work Source and One-Stop Center, as well as with community and faith-based organizations that serve the airport area and the surrounding communities. The FSHP also participates in the Mayor's South Los Angeles Initiative to hire those residents that experience disproportionate levels of poverty and unemployment compared to the general population. Many of these residents live in the designated Project Impact Area. The Disadvanted Business Enterprises, as described below is one of the policies that have come from the participation in the Mayor's initiative.

The FSHP has selected a local contractor, Agile 1, to develop a technological interface for job seekers and employers that will streamline the hiring process. Agile 1 is currently performing their discovery among the LAWA employers to determine their hiring needs in conjunction with the BJRD. With this information, they plan to build a database of prescreened and qualified candidates from the local communities surrounding the airport

LAWA hopes to expand the FSHP to LAX in six months to a year after fully implementing the pilot program (Initiative 9-1). The goal of this initiative is to expand the FSHP to tenants at each of LAWA's airports. However, there are no current plans to extend this program to other airports because LAWA experienced a downturn in air traffic as a direct result of increased fuel costs and the economic downturn. Subsequently, manay LAWA employers chose to either reduce employee hours or curtail new hiring rather than layoff employees. Conditions are beginning to change, as summer travel will bring increased hiring activity among a cross-section of LAWA employers. The FSHP will continue to work with other LAWA employers by providing direct referrals and/or resumes for their consideration.

Disadvantaged Business Enterprises (DBEs)

It is the policy of LAWA to provide Disadvantaged Business Enterprises (DBEs) an equal opportunity to participate in the performance on LAWA contracts. The objective of this policy is to achieve the participation of DBEs at levels comparable to their availability to provide goods and services to LAWA, with the ultimate goal of developing their status and expertise so that they may compete for future contracts on an equal basis. This policy includes Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs) and Other Business Enterprises (OBEs).

LAWA's annual FAA-approved DBEs goal for the fiscal year 2009 is 14.24%. Until such time that a disparity study is adopted, LAWA will achieve this goal on federally assisted projects through race neutral measures. However, LAWA encourages bidders and proposers to assist them in attaining this goal. A participation form must be included with the bid/proposal identifying the DBEs firms participating in the project.

Table 9-2 Sustainable Practices Initiatives

Initiative 9-1	LAWA will expand its First Source Hiring Program to all its tenants.
Initiative 9-2	LAWA will expand its EMS to LAX C&M Section
Initiative 9-3	LAWA will incorporate Sustainability Procurement requirements and documents into the Procurement Wizard
Initiative 9-4	LAWA will implement a LAWA-wide single document system that will allow more efficient storage and retrieval
Initiative 9-5	LAWA will investigate the feasibility of converting its paper-based timekeeping system into a computer-based paperless system.

Ethics Program

The Office of Ethics and Business Conduct is charged with building an ethical culture at LAWA that will nurture and support an environment that upholds the highest standards of ethical conduct. Key functions of the Ethics Office are as follows:

- Referral and resource inquiries and hotline;
- Ethics and compliance training;
- Enforcement of ethics violations;
- Organizational ethics implementation; and
- Coordination and compliance with the City Ethics Commission.

Procurement Wizard

As part of its purchasing system, LAWA has a Procurement Wizard that guides staff through the development of a procurement document. The Procurement Wizard is a computer-based system to ensure that contracts, requests for proposals and other agreements meet LAWA's requirements. Initiative 9-3 encourages incorporating sustainability procurement requirements and documents into the Procurement Wizard. Currently sustainability requirements have not been compiled and incorporated into the system, but there has been some enhancement done to the Procurement Wizard to improve it.

Environmental Management System

At ONT, an Environmental Management System (EMS) has been developed to show LAWA's commitment to the environment. The EMS is a continual improvement cycle of planning, implementing, checking and reviewing every aspect of LAWA's activities that is related to or that can affect the environment, positively or negatively. In the EMS's first phase, LAWA began the development and implementation at ONT's Construction and Maintenance (C&M) Division. The pilot program began in October 2007 and the first kick-off meeting for the fully implemented system was in April 2009. At the beginning of the pilot program, ONT originally chose the following goals for its EMS:

- ***Full environmental compliance.*** In 2007, ONT received three NOVs for air quality, hazardous water and storm water. In 2008, ONT receiveed two NOVs for hazardous waste and storm water and no NOVs for air quality. The goal is to receive no NOVs to be in full environmental compliance.
- ***Divert 70% of its solid waste from landfills.*** One of the programs implemented to help reach this goal was a recycling program for dirty rags. This program began in the summer of 2008.
- ***Reduce amount of hazardous waste generated and disposed.*** The amount of hazardous waste has generally increased at ONT between 2005 and 2007. In the first half of 2009, LAWA generated approximately

9.5 tons. A tracking system will be developed to determine the origin and types of hazardous waste generated at ONT C&M.

- ***Reduce air emission from permitted and non-permitted sources.*** In 2008, LAWA performed a greenhouse gas (GHG) inventory to determine its baseline GHG emissions. With this baseline, LAWA is developing its GHG reduction strategy. LAWA is implementing some strategies to reduce its GHG emissions from other sources, which include actively converting its vehicle fleet to alternative fuel and purchasing 25% of its power from non-GHG emitting sources.
- ***Reduce potable water usage for landscaping.*** The ONT Plumbing Shop installed the Hunter EvapoTranspiration (ET) system in March 2009. The ET system can create a new, water-efficient irrigation program every day based on local weather conditions by measuring solar radiation, air temperature and humidity. The Plumbing Shop staff is collecting water usage information and monitoring the effectiveness of the system during the 12-month pilot program. It is anticipated that the ET system data will reflect a significant amount of water conservation.
- ***Purchase environmentally preferable products in the Landscape Shop.*** C&M is following the existing City of Los Angeles's purchasing policy for recycling content and environmentally preferable products.

The initial development and implementation efforts in the C&M Division served as the EMS pilot project for LAWA. The pilot project provided a foundation on which LAWA could build and roll out a comprehensive EMS to the other airports. LAWA will now begin to focus on achieving Initiative 9-2, which is focused on the expansion of the EMS to the LAX C&M Division.

Internal Business Processes

To create more sustainable internal business processes, the Sustainability Plan developed two initiatives to move LAWA business processes in a more sustainable direction. The intention of Initiative 9-4 is to implement a LAWA-wide single document system that will allow more efficient storage and retrieval. LAWA is currently moving towards such a system, but has not yet fully implemented one.

The City of Los Angeles has demonstrated a paperless timesheet system. However at this time, the demonstrated system would not be implemented at LAWA because of cost issues. The feasibility of converting LAWA's paper-based timekeeping system into a computer-based paperless system as discussed in Initiative 9-5 has been investigated previously. LAWA is now determining whether an existing financial software package can be used for a paperless timekeeping system.