4. ENVIRONMENTAL IMPACT ANALYSIS

This chapter presents an assessment of the potentially significant environmental impacts of the proposed project, as described in Chapter 2, *Project Description*. This chapter describes the physical environment at and within the vicinity of LAX that may be affected by the proposed project; the impacts to that physical environment; and the measures proposed to mitigate those impacts, as required.

As identified in the Notice of Preparation (NOP)/Initial Study published on April 20, 2017 for this EIR, LAWA initially determined, based on a preliminary review of the proposed project, that construction of the proposed project could cause significant impacts within three environmental resource areas. The following environmental resource areas were identified in the NOP/Initial Study and are addressed in this chapter:

- Biological Resources
- Cultural Resources
- Tribal Cultural Resources

In addition, Appendix F of the State CEQA Guidelines requires an EIR to consider the potentially significant energy impacts of the proposed project. Therefore, Section 6.5 in Chapter 6, *Other Environmental Considerations*, addresses the infrastructure capacity and demand associated with the energy consumption associated with the construction and operation of the proposed project.

Organization

Each of the environmental resource areas addressed in this chapter is discussed in a separate section using a common organization. Sections are numbered 4.1, 4.2 and 4.3. The sections are divided into subsections to simplify and clarify the discussion. Within each environmental resource area section, discussion of the following is provided:

- The Introduction briefly describes the resource topics addressed in the analysis. The Introduction also identifies any specific resource topic for that environmental resource area that is not being addressed as part of this EIR and provides a discussion explaining the reasons why. For biological resources, a number of resource topics were evaluated and it was determined that the proposed project would have no impact or impacts were determined to be less than significant, as documented in the Initial Study that was published with the NOP for the proposed project on April 20, 2017 (included as Appendix A of this EIR).
- The Methodology describes how the resource topics were approached, including explanations of any assumptions; identification of information sources used for the analysis; and delineation of the study area considered for each environmental resource area. This section also identifies the environmental baseline used to determine the significance of impacts. A discussion of the environmental baseline is provided below under Analytical Framework.
- The Existing Conditions discusses the baseline conditions for the environmental resource topic in the study area, including relevant activities, facilities, and regulations. The environmental baseline is described below under Analytical Framework.
- The Thresholds of Significance are quantitative or qualitative criteria used to determine whether a significant environmental impact would occur as a result of the project. This section identifies the origins of the thresholds of significance used in the analysis. In general, and unless otherwise noted, the thresholds

of significance used in the analysis of the proposed project impacts reflect guidance provided in Appendix G of the State CEQA Guidelines and/or criteria or guidance included in the L.A. CEQA Thresholds Guide. ^{32,33}

- The Impacts Analysis section presents the analysis of impacts for the construction (the build-out horizon year2019) of the proposed project. Impacts were compared to the thresholds of significance to determine whether they would be, under CEQA, significant or less than significant. For purposes of determining significance, impacts were compared to the environmental baseline conditions, as further described in the Analytical Framework below. The impact analysis includes a determination of the level of significance of impacts under each threshold before mitigation.
- Cumulative Impacts are the impacts of the proposed project in conjunction with past, present, and reasonably foreseeable probable future projects. The environmental impacts of the proposed project may be individually minor, but cumulatively considerable when considered in conjunction with other projects.
- Mitigation Measures are specified procedures, plans, policies, or activities proposed for adoption by the lead agency to reduce or avoid the significant impacts identified in the analysis of environmental impacts. This section identifies applicable Standard Control Measures that LAWA would apply as mitigation measures and any proposed project-specific mitigation measures to address significant impacts that would occur with implementation of the proposed project. In accordance with the requirements of CEQA, a mitigation monitoring and reporting program (MMRP) would be adopted as part of the proposed project approvals, to ensure that implementation of mitigation measures, including applicable Standard Control Measures, is properly monitored and documented. Further discussion of LAWA Standard Control Measures is provided in the Analytical Framework below.
- Level of Significance After Mitigation is a CEQA determination of the significance of a particular impact after implementation of the proposed mitigation measures. This section identifies any significant impacts that cannot be mitigated to a level that is less than significant. These "significant unavoidable impacts" are also listed in Chapter 6, Other Environmental Considerations, of this EIR.

Additional Effects Found Not to be Significant in Initial Study

In accordance with Sections 15063(c)(3)(A) and 15128 of the State CEQA Guidelines, further analysis of specific environmental resource areas where it was determined that the proposed project would have no impact or impacts were determined to be less than significant in the Initial Study is not required and is not provided in this EIR. The specific environmental resource areas for which the analysis in the Initial Study determined there would be no impact or impacts would be less than significant and, therefore, are not further analyzed in the EIR, are: Aesthetics, Agriculture and Forestry Resources, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities and Service Systems.

³² State of California, *Guidelines for California Environmental Quality Act (State CEQA Guidelines)*, California Code of Regulations, Title 14, Chapter 3, Sections 15000-15387.

³³ City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Preparing CEQA Analyses in Los Angeles, 2006.

Analytical Framework

Environmental Baseline

Section 15125 of the State CEQA Guidelines requires that an EIR describe the physical environmental conditions in the vicinity of a proposed project "as they exist at the time the notice of preparation is published...." and further states that "[t]his environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."

The Notice of Preparation (NOP) for this EIR was published on April 20, 2017. In accordance with the provisions of CEQA Guidelines Section 15125, 2017 is the baseline year for characterizing existing conditions in the environmental analysis.

Description of Cumulative Impacts

As defined in the State CEQA Guidelines Section 15355, cumulative impacts are the impacts of the proposed project in conjunction with past, present, and reasonably foreseeable probable future projects. The environmental impacts of the project may be individually minor, but cumulatively considerable when considered in conjunction with other projects.

In accordance with the State CEQA Guidelines Section 15130, the proposed project must be evaluated for cumulative impacts to determine if they would be significant. This EIR provides an analysis of cumulative impacts to environmental resources addressed in this EIR that would be associated with construction of the proposed project in conjunction with other construction projects at LAX.

In accordance with State CEQA Guidelines Section 15130(b), there are essentially two approaches to evaluating cumulative impacts:

- a. List past, present, and reasonably foreseeable probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
- b. Summarize projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program.

For purposes of analyzing the proposed project's cumulative impacts to biological resources, cultural resources, and tribal cultural resources, the first approach, the list approach, was used.

Past, present, and reasonably foreseeable probable future projects at LAX that could, in conjunction with the proposed project, result in cumulative impacts to the environmental resources addressed in this EIR are described in Chapter 3, *Overview of Project Setting*, and are listed in Table 3-1 and identified in Figure 3-1; an analysis of cumulative impacts is included within the analysis of each of the three environmental resource areas evaluated in this chapter.

LAWA Standard Control Measures and Mitigation Measures

Standard Control Measures are measures that implement existing regulations and/or LAWA plans and policies that would reduce or avoid potential environmental impacts. For purposes of this EIR, those Standard Control Measures that are applicable to the impacts of the proposed project are recommended for implementation. An example of a LAWA Standard Control Measure that is applicable to the proposed project is conformance by contractors with LAWA's existing Archaeological Treatment Plan to reduce or avoid potential impacts to previously undiscovered

archaeological resources that may be encountered during construction activities.³⁴ LAWA's Archaeological Treatment Plan establishes requirements for monitoring during grading and/or excavation in native and undisturbed soils by a qualified archaeologist and protocols for the identification, evaluation, and recovery of archaeological resources, if discovered. Standard Control Measures are proposed, as warranted, in this EIR as "mitigation measures" to reduce significant impacts.

In addition, project-specific mitigation measures have been proposed to supplement applicable Standard Control Measures to reduce significant impacts to the extent feasible. In accordance with the requirements of CEQA, this EIR describes impacts both with and without mitigation. As such, the analysis under the heading "Impact Analysis" in each section of this chapter identifies the impacts of the proposed project before the application of Standard Control Measures and project-specific mitigation measures. A description of the impacts of the proposed project after application of Standard Control Measures and project-specific mitigation measures is then provided under the "Level of Significance After Mitigation" heading in each section.

³⁴ City of Los Angeles, Los Angeles World Airports, Final LAX Master Plan Mitigation Monitoring & Reporting Program: Archaeological Treatment Plan, prepared by Brian F. Smith and Associates. June 2005.