California Environmental Quality Act Findings Runway 6L-24R and Runway 6R-24L Runway Safety Area and Associated Improvements Project

I. Project Description

The Runway 6L-24R and Runway 6R-24L Runway Safety Area (RSA) and Associated Improvements Project (Project) would involve improvements to the RSAs in the northern airfield, as well as pavement rehabilitation on Runway 6L-24R and Taxiway AA. The proposed Project would not increase passenger or gate capacity, and would not increase flights and/or aircraft operations at LAX. The primary components of the proposed RSA Improvements Project include:

- Implementation of declared distances on Runway 6L and Runway 6R
- Pavement rehabilitation of Runway 6L-24R and Taxiway AA
  - Runway centerline and touchdown lighting replacement
  - Runway pavement markings
- Demolition of service road segments on the west end of Runway 6L
- Service roads in the eastern portion of the Runway 6L-24R RSA would be relocated outside the RSA
- Two segments of service roads would be constructed for access to navigational aids (navaids) east of the runways
- Service road segments would be constructed between the Runway 6L-24R RSA and the Runway 6R-24L RSA
- Cover a segment of the Argo Ditch
- Closure of vehicle service roads located within the Runway 6R-24L RSA
- Relocate security gate(s)
- Relocate Air Operations Area (AOA) Fence
- LAWA equipment parking areas closures
- Realignment of taxiway hold bars
- Construction Staging Areas

II. Project Objectives

The main objective of the proposed Project is to comply with the *Transportation, Treasury, Housing and Urban Development, the Judiciary, The District of Columbia, and Independent Agencies Appropriations Act* (Public Law 109-115)[1], which states that all RSAs at 14 CFR Part 139 airports must meet FAA design standards to the extent practicable by December 31, 2015.

[1] *The Transportation, Treasury, Housing and Urban Development, the Judiciary, the District of Columbia, and Independent Agencies Appropriations Act, 2006* (Public Law [P.L.] 109-115), November 30, 2005.

LAWA has identified improvements that can be implemented by December 31, 2015 to bring the Runway 6L-24R RSA into compliance with FAA design criteria and to make improvements to the Runway 6R-24L RSA.[2] Other objectives of the proposed Project are:

- Maintain safe operations;
- Minimize effects to existing aircraft operations; and
- Extend the life of Runway 6L-24R and associated Taxiway AA.

Additionally, the taxiway hold bars on Taxiways Y, Z, and AA need to be realigned to meet FAA standards. The hold bars on these taxiways mark where aircraft exiting from Runway 6L-24R, need to hold and wait for air traffic control clearance before crossing Runway 6L-24R. Realigning the hold bars will bring them into compliance with current FAA standards.

III. Procedural History

Los Angeles World Airports (LAWA) has prepared an environmental impact report (EIR) for the proposed Project pursuant to the California Environmental Quality Act (CEQA). An Initial Study (IS) and Notice of Preparation (NOP) for the Draft EIR was circulated for public review from August 22, 2013 to September 23, 2013. A public scoping meeting was held on September 5, 2013. On May 8, 2014, the City of Los Angeles published the Draft EIR for the proposed Project. In accordance with CEQA, the Draft EIR was circulated for public review for 30 days, with the public review period closing on June 9, 2014. As required by the California Office of Planning and Research, State Clearinghouse, State agencies were provided the opportunity to comment through June 23, 2014. A public workshop was held on May 22, 2014, during the comment period. The City of Los Angeles published the Final EIR for the proposed Project in June, 2014. The Final EIR incorporates and responds to comments received on the Draft EIR, and includes corrections and additions to the Draft EIR. Project-specific Mitigation Measures, LAWA Mitigation Measures, and applicable LAX Master Plan Commitments and Mitigation Measures have been included in a Project Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project. LAWA, the Los Angeles Board of Airport Commissioners (BOAC), and other decision-makers will use the Final EIR to inform their decisions on the proposed Project.

The findings herein have been prepared to reflect approval of the proposed Project as amended in Chapter 3, *Corrections and Additions to the Draft EIR*, of the Final EIR.

[2] Improvements to Runway 6L-24R and Runway 6R-24L are independent of any improvements proposed in the *Specific Plan Amendment Study Report*. The improvements to Runway 6L-24R and Runway 6R-24L examined in this document are proposed to bring the Runway 6L-24R RSA in compliance with FAA design criteria and to make improvements to the Runway 6R-24L RSA, as mandated by Public Law 109-115, and are independent of any future actions taken in regards to the Specific Plan Amendment Study (SPAS). Improvements contemplated in the SPAS Environmental Impact Report must still be assessed and approved by the Federal Aviation Administration (FAA), and they also need project-level approval under the California Environmental Quality Act.

IV. Environmental Impacts and Findings

Pursuant to Public Resources Code §21081 and CEQA Guidelines §15091, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

- Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the final EIR.

BOAC has made one or more of these specific written findings regarding each significant impact associated with the proposed Project. Those findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, BOAC adopts the Mitigation Monitoring and Reporting Program (CEQA Guidelines §15097(a)) for the proposed Project.

A. Findings on Significant and Unavoidable Impacts

a. Air Quality

Description of Effects: As analyzed in Section 4.1, *Air Quality*, of the Draft EIR, construction of the proposed Project would generate air pollutant emissions. Although the proposed Project is not a component of the LAX Master Plan, LAWA is committed to mitigating temporary construction-related impacts to the extent feasible. Therefore, applicable LAX Master Plan Commitments and Mitigation Measures contained in the LAX Master Plan EIS/EIR would be incorporated into the proposed Project, including Mitigation Measures *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures.*

Construction-Related Air Quality Impacts

As shown in Table 4.1-12, within Section 4.1, *Air Quality*, of the Draft EIR, construction of the proposed Project is predicted to result in maximum daily emissions that exceed the South Coast Air Quality Management District (SCAQMD) regional construction thresholds for CO, VOC, and NO_X. In addition to regional construction impacts, localized construction impacts were also evaluated at nearby sensitive receptor locations potentially impacted by the proposed Project, consistent with SCAQMD methodologies. As shown in Table 4.1-13, within Section 4.1, *Air Quality*, of the Draft EIR, localized emissions from construction activities would result in an exceedance of the localized concentration-based thresholds for two of the 327 LAX fence line locations that were evaluated for the 1-hour NO_2 California Ambient

Air Quality Standards (CAAQS). However, all NO_2 concentrations were found to be below the 1-hour National Ambient Air Quality Standards (NAAQS) and annual thresholds.

LAWA is committed to mitigating temporary construction-related emissions to the extent feasible and has established some of the most aggressive construction emissions reduction measures in Southern California, particularly with regard to requiring construction equipment to be equipped with emissions control devices. The air quality control measures set forth by LAWA for development projects at LAX take into account LAX Master Plan Commitments and Mitigation Measures, Community Benefits Agreement and Stipulated Settlement measures, and measures identified in EIRs for other projects at LAX. In addition, the Los Angeles Green Building Code (LAGBC) Tier 1 standards, which are applicable to all projects with a Los Angeles Department of Building and Safety (LADBS) permit-valuation over $200,000, require the proposed Project to implement a number of measures that would reduce criteria pollutant and greenhouse gas (GHG) emissions.

Based on discussions with the SCAQMD, LAWA has agreed to add the Project-specific Mitigation Measure *MM-AQ (RSA-N)-1*, which would be incorporated into bid documents for the proposed Project specifying that contractors should use equipment on the Project that meets the most stringent emission requirements. Because it is difficult for LAWA to determine whether equipment is available that meets the most stringent emission requirements, for purposes of this analysis LAWA has kept the equipment mix specified in the Draft EIR, but will require contractors to use equipment that meets stricter standards if available. This Mitigation Measure is applicable to the analyses for Air Quality, Greenhouse Gas Emissions, and Human Health Risk.

Even with incorporation of feasible construction-related control measures, applicable LAX Master Plan Mitigation Measures, and addition of Mitigation Measure *MM-AQ (RSA-N)-1* as described in Section 4.1, *Air Quality*, of the Draft EIR, the maximum peak daily construction-related regional mass emissions, and the peak daily concentrations of construction-related localized emissions resulting from the proposed Project would be significant, as shown by the emissions inventory and dispersion modeling. LAWA has not identified any additional feasible mitigation measures that could be adopted at this time to further reduce this impact to below significance. As such, the regional air quality impacts for CO, VOC, and NO_X during construction would be significant and unavoidable; localized air quality impacts for NO_2 would also be significant and unavoidable.

Cumulative Construction-Related Air Quality Impacts

In accordance with SCAQMD guidance, cumulative impacts are assessed using the same significance thresholds for project-specific and cumulative impacts. For projects that exceed the project-specific significance threshold, those projects are also considered cumulatively significant. Construction of the proposed Project would exceed the Project-specific significance thresholds for CO, VOC, and NO_X. Therefore, the proposed Project would have a cumulatively considerable contribution for construction emissions and would result in a cumulatively significant construction impact.

Findings: Even with incorporation of feasible construction-related control measures and mitigation measures, the maximum peak daily construction-related regional mass emissions for CO, VOC, and NO_X, and the localized air quality impacts for NO_2 resulting from the proposed Project would be significant. There are not any additional feasible mitigation measures that could be adopted at this time to further reduce this impact to below significance.

Despite incorporation of these measures, the BOAC hereby finds construction-related air quality impacts related to CO, VOC, and NO_X/NO_2 for the proposed Project would remain significant and unavoidable and that specific economic legal, social, technological, or other considerations make additional mitigation measures or project alternatives infeasible. Beyond the LAX Master Plan Mitigation Measures and the Project-Specific Mitigation Measure identified above, which will be included in the Mitigation Monitoring and Reporting Program for the proposed Project, no other air quality mitigation measures are feasible that would mitigate Project-specific and cumulative impacts to air quality during the construction period.

b. Human Health Risk Assessment

Description of Effects: As analyzed in Section 4.4, *Human Health Risk Assessment*, of the Draft EIR, human health risk from the inhalation exposure to toxic air contaminants (TACs) released during construction of the proposed Project could occur. Environmental consequences considered are cancer risks and non-cancer chronic and acute health hazards. Possible human health effects are discussed as they relate to on-site Project workers, non-Project workers (off- and on-airport), off-airport resident adults, off-airport resident children, and off-airport school children. LAX Master Plan Mitigation Measures applicable to the proposed Project include: *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures*. Project-specific Mitigation Measure *MM-AQ (RSA-N)-1* would also be implemented as part of the proposed Project. These measures were incorporated into the health risk analysis presented in Section 4.4 of the Draft EIR.

Acute Non-Cancer Health Hazards

During construction of the proposed Project, Runway 6L-24R would be closed for a period of 122 days (approximately 4 months) to allow for runway rehabilitation and construction of the RSA improvements; operations from this runway must be accommodated through the use of other runways at LAX during this time. In addition, to allow for completion of construction work on the Argo Ditch, Runway 6L-24R must operate at a reduced length of 7,000 feet for a period of 60 days (2 months). During these periods, taxi times would increase above baseline conditions. The main TAC of concern associated with aircraft taxiing is acrolein. Acute exposures to acrolein may result in mild irritation of eyes and mucous membranes. Maximum acute non-cancer health hazards associated with exposure to acrolein are summarized in Table 4.4-7 in the Draft EIR. Acute non-cancer health hazards for TAC other than acrolein are orders of magnitude below the significance threshold of 1, and below the acute non-cancer health hazards estimated for short-term exposure to acrolein.

Construction-related incremental maximum acute hazard quotients for acrolein for construction of the proposed Project are estimated to be 1.4 for residents living at the peak hazard location, 0.7 for school children, 1.1 for recreational users, and 2.1 for off-site adult workers. However, 300 of 328 grid nodes have incremental acute hazard quotients for acrolein of less than 1; 73 of these receptors show a negative hazard quotient, meaning the short-term impacts actually improve during construction of the proposed Project. Of the twenty-eight grid nodes with incremental acute hazard quotients for acrolein greater than 1, only one of the grid nodes is greater than 2.

The acute Reference Exposure Level (REL) for acrolein has an uncertainty factor of 60. This factor indicates a moderate uncertainty in the REL based on specific sources of variability not addressed in the toxicological studies, such as individual variation and interspecies differences. Although the maximum acute hazard quotient for acrolein for the proposed Project is greater than 1, it should be noted that the acute REL is set at or below a level at which no adverse health impacts are expected for a majority of the population. Hence, it represents the tail-end of a distribution and not a specific "bright-line" beyond which adverse effects are certain; instead any adverse acute non-cancer health effects (mucous membrane irritation) would be part of a complex probabilistic process. Although the maximum acute hazard quotient estimated as 2.1 is above the threshold of significance of 1, the value is still close to the threshold for acute effects, given the uncertainty of the toxicity factor, and may represent minimal actual acute non-cancer health hazards. Thus, an acute hazard quotient of 2.1 does not mean that adverse effects would definitely occur in the receptor population; rather, it indicates that such effects cannot be ruled out on the basis of current knowledge.

Even with the incorporation of LAX Master Plan Mitigation Measures and Project-specific mitigation, acute hazard quotients for acrolein for receptors representing residents, off-Airport adult workers, and recreators would be above the threshold of significance of 1. Therefore, acute non-cancer health hazard impacts during construction of the Project would be significant.

Cumulative Impacts Related to Acute Non-Cancer Health Hazards

As described above, predicted concentrations of TAC released from construction activities for the proposed Project suggest that slight impacts to human health may occur associated with acute non-cancer health hazards. The assessment of cumulative acute non-cancer health hazards follows the methods used to evaluate cumulative acute non-cancer health hazards presented in the LAX Master Plan Final EIR (Section 4.24.1.7 and Technical Report S-9a, Section 6.3), incorporating updated National-Scale Air Toxics Assessment tables from 2005. USEPA-modeled emission estimates by census tract were used to estimate annual average ambient air concentrations. These census tract emission estimates are subject to high uncertainty, and USEPA warns against using them to predict local concentrations. Thus, for the analysis of cumulative acute non-cancer health hazards, estimates for each census tract within Los Angeles County were identified, and the range of concentrations was used as an estimate of the possible range of annual average concentrations in the general vicinity of the Airport. This range of concentrations was

used to estimate a range of acute non-cancer hazard indices using the same methods described in the LAX Master Plan Final EIR (Section 4.24.1.7 and Technical Report S-9a, Section 6.1). This range of hazard indices was then used as a basis for comparison with estimated maximum acute non-cancer health hazards for the proposed Project. The relative magnitude of acute non-cancer health hazards calculated on the basis of the USEPA estimates and maximum hazards estimated for the proposed Project were taken as a general measure of relative cumulative impacts. Uncertainties in the analysis preclude estimation of absolute impacts.

When USEPA annual average estimates are converted to possible maximum 1-hour average concentrations, acrolein acute hazard indices are estimated to range from 0.03 to 1.5, with an average of 0.4 for locations within the HHRA study area. The predicted overall maximum incremental acute non-cancer health hazards for the proposed Project associated with acrolein is 2.1. Results suggest that the proposed Project would add to total 1-hour maximum acrolein concentrations at some locations in the HHRA study area and, therefore, to cumulative acute non-cancer health hazards associated with exposure to acrolein. Hence, the proposed Project would have a cumulatively significant acrolein impact.

Findings: The incorporation of LAX Master Plan Mitigation Measures *LAX-AQ-1* and *LAX-AQ-2,* along with Project-specific mitigation measure *MM-AQ (RSA-N)-1*, will reduce TAC emissions associated with the proposed Project. However, even with the implementation of these measures, the acute non-cancer health hazards at some fenceline receptors will exceed the threshold of significance during construction of the proposed Project, and therefore the impact would be significant and unavoidable, and may also result in a cumulatively considerable contribution to cumulative impacts related to acute non-cancer health hazards. There are not any additional feasible mitigation measures that could be adopted at this time to further reduce this impact to below significance.

Despite incorporation of these measures, the BOAC hereby finds the acute non-cancer health hazard impacts, including cumulative impacts, for the proposed Project would remain significant and unavoidable and that specific economic legal, social, technological, or other considerations make additional mitigation measures or project alternatives infeasible. Beyond the LAX Master Plan Mitigation Measures and Project-Specific Mitigation Measure identified above, which will be included in the Mitigation Monitoring and Reporting Program for the proposed Project, no other human health risk mitigation measures are feasible that would mitigate impacts to a less than significant level.

B. Findings on Less-than-Significant Impacts and Impacts that Will be Reduced to Below the Level of Significance with Mitigation

a. Air Quality

Description of Effects: As analyzed in Section 4.1, *Air Quality*, of the Draft EIR, construction of the proposed Project would generate air pollutant emissions. Regional and localized construction air quality impacts were assessed based on the incremental increase in emissions for the proposed Project. The proposed Project would not cause any long-term changes to operations; departures and arrivals

runway utilization, as well as arrival and departure thresholds, on Runway 24R would remain the same as existing conditions. Therefore, no significant change in air quality as a result of operations is anticipated to occur under the proposed Project, and thus, was not further analyzed in the Draft EIR.

LAX Master Plan Mitigation Measures applicable to construction of the proposed Project include: *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures*. Mitigation Measure *MM-AQ (RSA-N)-1* would also be implemented as part of the proposed Project. Additionally, the Draft EIR analyzed the potential for odors during the construction of the proposed Project.

Regional Construction Air Quality Impacts

As shown in Table 4.1-12, within Section 4.1, *Air Quality*, of the Draft EIR, SO_2, PM_{10}, and $PM_{2.5}$ emissions associated with the construction of the proposed Project would not exceed the SCAQMD regional construction thresholds.

Localized Construction Air Quality Impacts

In addition to regional construction impacts, localized construction impacts were also evaluated at nearby sensitive receptor locations potentially impacted by the proposed Project, consistent with SCAQMD methodologies. As shown in Table 4.1-13, within Section 4.1, *Air Quality*, of the Draft EIR, emissions from construction activities would exceed the 1-hr NO_2 California Ambient Air Quality Standards (CAAQS) threshold, but would remain below the ambient air quality standards for all other pollutants.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents and from diesel emissions. SCAQMD limits the amount of VOCs from architectural coatings and solvents. Due to mandatory compliance with SCAQMD Rules and compliance with the DPM reduction strategies, no construction activities or materials are proposed which would create objectionable odors affecting a substantial number of people. The nearest sensitive receptors are located beyond the LAX property line and would be further buffered by the dissipation of odors with distance and prevailing winds. Therefore, no impact would occur and no mitigation measures would be required.

Findings: Based on substantial evidence in the administrative record, including Section 4.1, *Air Quality*, of the Draft EIR, the BOAC hereby finds and determines that the proposed Project would not have Project-specific significant: regional SO_2, PM_{10}, and $PM_{2.5}$ construction impacts; localized construction impacts for CO, VOCs, SO_2, PM_{10}, $PM_{2.5}$ and for the 1-hour and annual NAAQS for NO_2; and odor impacts. Beyond the LAX Master Plan Mitigation Measures and Project-Specific Mitigation Measure identified above, which will be included in the Mitigation Monitoring and Reporting Program for the proposed Project, no other air quality mitigation measures would be required for these air quality impacts as they will be less than significant.

b. Biological Resources

Description of Effects: The biological resources analysis provided in Section 4.2, *Biological Resources*, of the Draft EIR, addresses the potential of the proposed Project to directly affect sensitive habitats, sensitive species, and jurisdictional aquatic features, including wetlands and waters of the United States, nursery habitats, wildlife movement corridors, habitat conservation plan, and natural community conservation plan areas that are afforded protection pursuant to federal, State, and local statutes and regulations. LAX Master Plan Mitigation Measures applicable to the proposed Project include: *MM-BC-1 – Conservation of State-Designated Sensitive Habitat within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area*; *MM-BC-2 – Conservation of Floral Resources: Lewis' Evening Primrose*; and *MM-ET-3 – El Segundo Blue Butterfly Conservation: Dust Control*. Applicable Bradley West Project (BWP)-specific mitigation measures (i.e., measures adopted in connection with approval of the Bradley West Project, which also pertain to, and have been considered within the analysis completed for the proposed Project EIR) include: *MM-BC (BWP)-4 – Conservation of Faunal Resources: Burrowing Owl* and *MM-BC (BWP)-8 – Conservation of Faunal Resources: Nesting Birds/Raptors*.

Construction-Related Biological Resources Impacts

Construction of the proposed Project would result in excavation, grading, and paving of approximately 6.0 undeveloped acres. The areas proposed to be converted to impervious surfaces would consist of disturbed/annual brome grassland, disturbed vegetation, and ornamental vegetation. These areas ~~contain no sensitive, threatened or endangered plant communities or species and~~ currently have been and will continue to be routinely maintained as part of LAWA's ongoing program to prevent wildlife hazardous to aircraft operations from entering the airfield. One sensitive plant species, the Lewis' evening primrose, is known to occur in the western end of the Project area. LAWA will implement a Project-specific mitigation measure, *MM-BC (RSA-N)-1 – Conservation of Floral Resources: Lewis' Evening Primrose*, to identify any individual plants that may be affected by the proposed Project. If avoidance of this species is not feasible, LAWA will or its designee shall prepare and implement a plan to compensate for the loss of individuals of the Lewis' evening primrose in coordination with the appropriate resource agencies. No natural systems that support ~~wildlife and fish habitat or~~ economically important resources would be affected by the construction of the proposed Project.

The proposed Project would also involve excavation, grading, and covering a portion of the Argo Ditch approximately 720 feet in length with a concrete box-channel. This would result in removal of 0.09-acre of wetland vegetation within the area previously cleared for channel clearing. No listed species would be impacted as a result of the wetland removal.

Construction of the proposed Project would be temporary in nature and would not result in a significant change to the study area, or introduce new noise or light sources. No interference with habitat would occur as a result of construction of the proposed Project that would diminish the chances for long-term survival of a sensitive species. No established wildlife corridors or native wildlife nursery sites are

known to exist within the study area, thus, the proposed Project would have no impact on these sites or native fish or wildlife species that rely on those sites. Additionally, no biological resources designated as sensitive by the Coastal Zone Management Act (CZMA) were observed in the study area during surveys conducted for the Biological Assessment. No impacts to these resources would be anticipated by construction of the proposed Project.

Operations-Related Biological Resources Impacts

Implementation of the proposed Project would not cause a change in aircraft operations or routes, or any other operations at LAX. Therefore, the proposed Project would not result in a significant change to the study area, including the introduction of noise or light sources. No interference with sensitive habitats would occur as a result of operations of the proposed Project. The proposed Project would not diminish the chances for long-term survival of any sensitive species or its habitats.

No established wildlife corridors or native wildlife nursery sites are known to exist within the study area. The proposed Project would have no impact on these sites or native fish or wildlife species that rely on those sites. Additionally, no biological resources designated as sensitive by CZMA were observed in the study area during surveys conducted for the Biological Assessment. No impacts to these resources would be anticipated for operations of the proposed Project.

Proposed Project activities would not likely result in impacts to any federally or state-listed threatened or endangered or candidate species. Additionally, Project activities will not likely result in impacts to other locally sensitive plant or wildlife species.

Cumulative Biological Resources Impacts

LAWA projects would be required to implement BMPs, follow regulations, and apply project design features, Project-specific mitigation measures, and applicable LAX Master Plan ~~EIS/EIR~~Commitments and Mitigation Measures. The proposed Project includes project design features and BMPs specifically designed to reduce biological resources impacts to less than significant. Therefore, impacts related to biological resources under the proposed Project are not cumulatively considerable, and cumulative impacts would be less than significant.

Findings: Based on substantial evidence in the administrative record, including Section 4.2, *Biological Resources*, of the Draft EIR, the BOAC hereby finds and determines that the proposed Project would not have significant Project-related construction, operations, and cumulative biological resources impacts. The BOAC hereby adopts the conclusions regarding less than significant biological resources impacts. Project-specific mitigation measure *MM-BC (RSA-N)-1*, ~~A~~applicable LAX Master Plan Commitments and Mitigation Measures, and BWP-specific mitigation measures identified in Section 4.2, *Biological Resources*, of the Draft EIR, will be included in the Mitigation Monitoring and Reporting Program for the proposed Project to ensure that impacts would be less than significant. No further mitigation measures are required.

c. Greenhouse Gas Emissions

Description of Effects: The GHG analysis provided in Section 4.3, *Greenhouse Gas Emission*s, of the Draft EIR, examines the potential GHG emissions associated with the proposed Project that may contribute to global climate change (GCC) impacts. Total GHG emissions from the proposed Project were quantified to determine consistency with the Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020). LAX Master Plan Mitigation Measures applicable to the proposed Project include: *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures.* Project-specific Mitigation Measure *MM-AQ (RSA-N)-1* would also be implemented as part of the proposed Project. Additionally, the proposed Project would comply with the LAGBC Tier 1 standards.

Construction-Related GHG Impacts

The proposed Project-related construction sources for which GHG emissions were calculated include: (1) off-road construction equipment; (2) on-road equipment and delivery/haul trucks; (3) construction worker commute vehicles; and (4) aircraft operations during the runway closure period and reduced runway length period. Construction of the proposed Project is estimated to emit a total of 6,946 metric tons of CO_2e ($MTCO_2e$) during construction. When amortized over 30 years, construction GHG emissions are estimated at 232 $MTCO_2e$ per year. As discussed in Section 4.3, *Greenhouse Gas Emissions*, of the Draft EIR, the significance of construction-related impacts is not determined separately for GHG emissions. Rather, the significance of construction-related and operations-related GHG emissions for the proposed Project are evaluated together, as discussed below.

Operations-Related GHG Impacts

Operations of the proposed Project would not result in changes to air traffic patterns or an increase in Airport operations. However, as significance is determined from the combined construction- and operations-related GHG emissions, total airport GHG emissions from aircraft were calculated for the future With and Without Project conditions. Operational aircraft GHG emissions of the proposed Project would have no incremental increase over the Without Project scenario. When taking into account amortized construction, GHG emissions for the proposed Project would be less than the significance threshold of 10,000 $MTCO_2e$ per year. Therefore, the proposed Project would not result in a significant impact to GHG emissions or climate change.

Cumulative Construction- and Operations-Related GHG Impacts

As discussed in Section 4.3.4 (Thresholds of Significance), of the Draft EIR, the CEQA Guidelines do not include or recommend any particular threshold of significance; instead, the CEQA Guidelines leave that decision to the discretion of the lead agency (§15064.4). The California Natural Resources Agency (CNRA) noted in its Public Notice for the added sections on GHG, that the impacts of GHG emissions should be considered in the context of a cumulative impact, rather than a project impact. The Public Notice states:

> "While the Proposed Amendments do not foreclose the possibility that a single project may result in greenhouse gas emissions with a direct impact on the environment, the evidence before [CNRA] indicates that in most cases, the impact will be cumulative. Therefore, the Proposed Amendments emphasize that the analysis of greenhouse gas emissions should center on whether a project's incremental contribution of greenhouse gas emissions is cumulatively considerable."

It is the accumulation of GHGs in the atmosphere that may result in global climate change. Climate change impacts are cumulative in nature, and thus no typical single project would result in emissions of such a magnitude that it, in and of itself, would be significant on a project basis. A typical single project's GHG emissions will be small relative to total global or even statewide GHG emissions. Thus, the analysis of significance of potential impacts from GHG emissions related to a single project is already representative of the long-term impacts on a cumulative basis. Therefore, projects that exceed the project-specific significance thresholds are considered to be cumulatively considerable. Projects that do not exceed the project-specific thresholds for GHG emissions are not considered to be cumulatively considerable.

As discussed above, the proposed Project's combined amortized construction and operational GHG emissions would not exceed the significance threshold of 10,000 $MTCO_2e$ per year. Therefore, the proposed Project would not cause cumulatively considerable impacts with respect to GHG emissions, and impacts would be less than significant.

Consistency with Greenhouse Gas Reduction Plans

The proposed Project would comply with the LAGBC Tier 1 requirements. LAWA has based its new sustainable construction standards on the mandatory and voluntary tiers defined in the LAGBC. All building projects with an LADBS permit-valuation over $200,000 shall achieve LAGBC Tier 1 conformance, to be certified by LADBS during final plan check (on the issued building permit) and validated by the LADBS inspector during final inspection (on the Certification of Occupancy). The proposed Project would comply with the mandatory requirements for Tier 1 conformance. As a result, the proposed Project would be consistent with plans to reduce GHG emissions.

Findings: Based on substantial evidence in the administrative record, including Section 4.3, *Greenhouse Gas Emissions*, of the Draft EIR, the BOAC hereby finds and determines that with incorporation of LAX Master Plan Mitigation Measures *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures,* and Project-specific Mitigation Measure *MM-AQ (RSA-N)-1,* the proposed Project would have a less than significant impacts to greenhouse gases and climate change. These applicable LAX Master Plan Mitigation Measures and Project-specific mitigation measure will be included in the Mitigation Monitoring and Reporting Program for the proposed Project to ensure that impacts would be less than significant. No further mitigation measures are required.

d. Human Health Risk Assessment

Description of Effects: As analyzed in Section 4.4, *Human Health Risk Assessment*, of the Draft EIR, human health risk from the inhalation exposure to TACs released during construction of the proposed Project could occur. Environmental consequences considered are cancer risks and non-cancer chronic and acute health hazards. Given that the proposed Project would not increase operational capacity at LAX nor would it substantially affect airport operations, the HHRA only assessed the health impacts to people exposed to TACs during the construction phase of the proposed Project. Possible human health effects were discussed as they relate to on-site Project workers, non-Project workers (off- and on-airport), off-airport resident adults, off-airport resident children, and off-airport school children. LAX Master Plan Mitigation Measures applicable to the proposed Project include: *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures*. Project-specific Mitigation Measure *MM-AQ (RSA-N)-1* would also be implemented as part of the proposed Project. These measures were incorporated into the health risk analysis presented in Section 4.4 of the Draft EIR.

Health Risks to On-Airport Workers

Effects to on-Airport workers were evaluated by comparing estimated maximum 8-hour average TAC concentration to the CalOSHA 8-hour Time-Weighted Average Permissible Exposure Levels (PEL-TWA). As shown in Table 4.4-5, within Section 4.4, *Human Health Risk Assessment*, of the Draft EIR, the estimated maximum 8-hour average TAC concentrations for on-Airport locations for construction of the proposed Project are several orders of magnitude below the PEL-TWA and, thus would not exceed those considered acceptable by CalOSHA standards. Therefore, impacts related to health risks to on-Airport workers would be less than significant for the proposed Project.

Cancer Risks and Chronic Non-Cancer Hazards

Several factors contribute to cancer risks and non-cancer health hazards associated with the proposed Project. Construction of the proposed Project would result in temporary emissions of various TACs from construction equipment, vehicles used by workers commuting to the job site, trucks used for haul/delivery trips, and demolition (material crushing and grading). Emissions of DPM are expected to contribute the majority of total incremental cancer risks for construction sources. The temporary shift in aircraft operations during construction of the proposed Project would result in emissions of various TACs from aircraft ground operations (increased taxi and idle times).

Consistent with the results for the LAX Master Plan EIS/EIR, modeling results for the proposed Project indicate that diesel particulates from trucks and construction equipment are responsible for nearly all potential health risks posed by the proposed Project construction activities. Specifically, diesel particulates account for over 87 percent of cancer risks from construction sources, while fugitive dust contributes the greatest to non-cancer chronic health hazards from construction sources. From operational sources, aircraft emissions contribute the greatest to non-cancer chronic health hazards.

As presented in Table 4.4-6, within Section 4.4, *Human Health Risk Assessment*, of the Draft EIR, Project-related cancer risks and non-cancer chronic health hazards were predicted to be below the thresholds of significance. Given the conservative approach used to estimate the magnitude of potential impacts to human health, the Draft EIR found that no significant risks or hazards are anticipated to occur.

Cumulative Impacts Related to Cancer Risks and Non-Cancer Health Hazards

Although no defined thresholds for cumulative health risk impacts are available, it is the policy of the SCAQMD to use the same significance thresholds for cumulative impacts for hazard indices for TAC emissions as for the project-specific impacts analyzed in the EIR. If cumulative health risks are evaluated following this SCAQMD policy, the project's contribution to the cumulative cancer risk would not be cumulatively considerable since the incremental cancer risk impacts of the proposed Project are all below the individual cancer risk significance thresholds of 10 in one million.

In contrast to cancer risk, the SCAQMD policy does have different significance thresholds for project-specific and cumulative impacts for hazard indices for TAC emissions. A project-specific significance threshold is one (1.0) while the cumulative threshold is 3.0. Based on this SCAQMD policy, chronic non-cancer hazard indices associated with airport emissions under the proposed Project would not be cumulatively significant.

Findings: Based on substantial evidence in the administrative record, including Section 4.4, *Human Health Risk Assessment*, of the Draft EIR, the BOAC hereby finds and determines that construction of the proposed Project, with incorporation of LAX Master Plan Mitigation Measures *LAX-AQ-1 — General Air Quality Control Measures* and *LAX-AQ-2 — Construction-Related Measures*, and Project-specific Mitigation Measure *MM-AQ (RSA-N)-1*, would have a less than significant impact to human health. These applicable LAX Master Plan Mitigation Measures and Project-specific Mitigation Measure will be included in the Mitigation Monitoring and Reporting Program for the proposed Project and would ensure that impacts to human health would be less than significant. No further mitigation measures are required.

e. Hydrology and Water Quality

Description of Effects: Section 4.5, *Hydrology and Water Quality*, of the Draft EIR analyzed the potential for the proposed Project to result in significant hydrology (drainage, groundwater) and water quality impacts. The LAX Master Plan Commitment applicable to the proposed Project is *HWQ-1, Conceptual Drainage Plan*.

Construction-Related Hydrology Impacts

The proposed Project would increase the amount of impermeable surfaces located in the study area. During construction, these areas would be, for the most part, permeable until asphalt or Portland Cement Concrete is laid down. Existing drainage patterns would remain although topography would be changed during grading and

excavation activities. Through implementation of LAX Master Plan Commitments and BMPs, construction of the proposed Project would conform to the Standard Urban Stormwater Mitigation Plan (SUSMP) and thus, would not have a significant impact on project site hydrology.

The proposed Project also includes covering a portion of the Argo Ditch, a man-made flood control structure that falls under the jurisdiction of United States Army Corp of Engineers (USACE) and the California Department of Fish and Wildlife (CDFW). Construction of the proposed Project would include grading and excavation of previously delineated 0.093 acres of wetlands. These wetlands would then be covered with the concrete box channel to allow conveyance of the Argo Ditch flow. The proposed Project would be an allowable activity pursuant to Nationwide Permit No 39. The USACE has issued nationwide permits for activities that would have a minimal effect on the aquatic environment. No substantial alteration to hydrology, floodwater, or stormwater retention would occur as a reduction of 0.093 acres of wetlands as a result of the proposed Project. However, LAWA will implement Project-specific Mitigation Measure *MM-HWQ (RSA-N)-1*, to mitigate impacts to the Argo Ditch at a minimum ratio ~~between~~ of ~~1~~2:1 ~~and 3:1~~ due to permanent loss of up to 720 linear feet of the Argo Ditch. Mitigation may include restoration, establishment, enhancement, preservation, mitigation banking, and in-lieu fee or equivalent as coordinated with the respective agencies.

Construction-Related Water Quality Impacts

Construction activities for the proposed Project would include site preparation, demolition, excavation, grading, and paving, and would be required to conform to the SUSMP. The proposed Project would not provide substantial additional sources of polluted runoff due to the compliance with the regulatory requirements and implementation of construction treatment BMPs and LAX Master Plan Commitments, as required. Therefore, construction impacts related to water quality would be less than significant.

Operations-Related Hydrology Impacts

Although the proposed Project would increase the amount of impervious surfaces by 2.0 acres at the northeastern end of Runway 6L-24R, it would not substantially modify existing drainage patterns; the study area would continue to flow to the Argo Sub-Basin, as under existing conditions. The proposed Project incorporates Project Design Features that would ensure runoff does not substantially change, including: construction of new storm drain pipeline segments, inlets, and storm treatment filters, and stormwater runoff conveyance structures that accommodate any increased runoff volume generated by the proposed Project. With implementation of these Project Design Features, operations impacts related to hydrology due to increased runoff would be less than significant. Additionally, the proposed Project would be subject to LAX Master Plan Commitment *HWQ-1*. Proposed Project elements would be designed to accommodate any additional future flows as a result of the proposed Project.

Operations-Related Water Quality Impacts

The proposed Project would have the potential to increase pollutant loads in stormwater runoff due to the increased paved area discharging stormwater. Operations of the proposed Project would consist of continued operations on Runway 6L-24R and Runway 6R-24L, which generates unique pollutants, such as heavy metals, organic compounds, tire materials, and fuel exhaust. However, the amount of pollutants during operations would not be greater than current conditions since the proposed Project would not increase operational capacity or the number or type of aircraft operations. Furthermore, pollutant discharge into the stormwater drainage system is highly regulated at LAX, and all operations would be required to follow established measures to meet the requirements of the NPDES permit. Therefore, operational impacts related to hydrology would be less than significant.

Cumulative Impacts

Generally, hydrology and water quality impacts related to increased runoff tend to be site-specific. In other words, although under the proposed Project a net increase of 2.0 acres of permeable area would become impermeable, this would not cause another study area to modify its permeability such that it would increase/decrease that project's runoff. Additionally, as discussed above, the proposed Project would not substantially modify existing drainage patterns, and the study area would continue to flow to the Argo Sub-Basin, as under existing conditions. Taken all together, if other projects also have increased runoffs, there is the potential to all contribute cumulatively to impacts related to runoff. However, as discussed above, all LAWA projects would be required to implement BMPs, follow regulations, and apply project design features and applicable LAX Master Plan Commitments. The proposed Project includes project design features and Treatment BMPs specifically designed to reduce hydrology and water quality impacts to less than significant. Therefore, impacts related to increased runoff under the proposed Project are not cumulatively considerable, and cumulative impacts would be less than significant.

Findings: Based on substantial evidence in the administrative record, including Section 4.5, *Hydrology and Water Quality*, of the Draft EIR, the BOAC hereby finds and determines that the proposed Project would not have significant Project-related construction, operations, and cumulative hydrology or water quality impacts. The BOAC hereby adopts the conclusions regarding less than significant hydrology and water quality impacts. Applicable LAX Master Plan Commitments and Project-Specific Mitigation Measure *MM-HWQ (RSA-N)-1,* identified in Section 4.5, *Hydrology and Water Quality*, of the EIR, will be included in the Mitigation Monitoring and Reporting Program for the proposed Project to ensure that impacts would be less than significant. No further mitigation measures are required.

f. Noise

Description of Effects: Section 4.6, *Noise*, of the Draft EIR, analyzes potential impacts from construction equipment noise and noise impacts from the shift in aircraft operations during the temporary runway closure and displaced threshold periods. The following three LAX Master Plan Commitments and four LAX Master Plan Mitigation Measures are applicable to the proposed Project: *MM-N-7* –

Construction Noise Control Plan, MM-N-8 – Construction Staging, MM-N-9 – Equipment Replacement, MM-N-10 – Construction Scheduling, N-1 – Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program, Surface Transportation (ST)-16 – Designated Haul Routes, and *ST-22 – Designated Truck Routes,* were considered in the noise analysis. Although the noise control measures are applicable to the proposed Project and would be implemented during the course of Project implementation, the noise impacts analysis presented in Section 4.6, *Noise*, of the Draft EIR did not take credit for noise reductions associated with these measures. As such, the noise impacts analysis in the Draft EIR is considered to be conservative.

Construction Equipment and Staging Area Noise

Noise exposure at the closest noise-sensitive locations in Westchester due to construction of the proposed Project would be approximately 60.9 dBA L_{eq} during the noisiest construction times. Construction noise exposure at homes northeast of the intersection of Sepulveda Boulevard and Westchester Parkway during the construction period would be approximately 58.7 dBA L_{eq} at its loudest. These anticipated noise levels, while expected to be audible at times, would be below noise exposure from aircraft noise sources in the area. Therefore, noise impacts from construction activities would not exceed existing ambient exterior noise levels by 5 dBA or more and impacts would be less than significant.

Aircraft Operations during Construction Noise

Construction of the proposed Project would require closure of Runway 6L-24R for approximately 4 months and implementation of a displaced threshold on the same runway for an additional period of 2 months. As shown in Table 4.6-8 of the Draft EIR, during the runway closure, an estimated 2,461 additional people would be affected by the CNEL 65 and higher dB contours. Additionally, due to the redistribution of aircraft to other runways during the temporary closure of Runway 6L-24R and 2-month displaced threshold period, a 1.5 dB CNEL and higher increase is observable when compared to (2015) Without Project conditions.

The primary areas that would experience an increase of 1.5 dB CNEL or higher are located directly east of Runway 6R-24L. This increase would impact 52 parcels with residential dwellings (resulting in a population affected of 364). Besides residential land uses, no noise-sensitive uses would experience an increase in noise of 1.5 dB CNEL or greater noise contour. These residential dwelling units are located within the City of Inglewood within the existing Residential Sound Insulation Program (RSIP) established by LAWA to mitigate noise impacts through sound insulation for non-City of Los Angeles jurisdictions around LAX. Of these 52 parcels, 8 have been mitigated under the RSIP, 3 are in process of being mitigated, 6 have been invited to participate but have not responded, 1 has declined to participate in the RSIP, 5 are not eligible for sound insulation because they were constructed after building codes were modified to incorporate sound attenuation into new residential construction and thus, are not eligible for the RSIP, and 29 are not eligible because they are zoned C-2 (commercial). To mitigate the 1.5 dB increase to these 52 parcels, LAWA will incorporate the Project-specific Mitigation Measure *MM-N (RSA-N)-2 – Residential*

Sound Insulation. Under this measure, LAWA will invite the seven eligible residential properties (zoned residential) located within the 1.5 dB CNEL or greater increase noise contour to participate in the existing City of Inglewood RSIP; if the affected property owners agree to participate in the RSIP, sound insulation will be completed prior to July 2015 when construction of the proposed Project and the temporary closure of Runway 6L-24R would begin.

LAX Master Plan Commitments and Mitigation Measures, along with Project-specific Mitigation Measure *MM-N (RSA-N)-2*, would reduce construction noise impacts associated with the proposed Project to a level of less than significant.

Cumulative Noise

Construction-related increases in existing CNEL levels, estimated at nearby noise-sensitive receptors, resulting from implementation of the proposed Project would include a maximum 4.90 dBA increase due to potential use of the Northeast Construction Staging/Parking Area (Construction Staging Area B) for construction worker parking, construction trailers/portable offices, and/or outdoor storage laydown areas. Of the LAX-related projects considered in the analysis, the proposed Northside Area Development has the greatest potential to result in construction-related changes to existing CNEL levels at the nearest sensitive noise-receptors also affected by the proposed Project. Other related projects that may result in construction noise are located much farther away from the nearest noise-sensitive receptors affected by the proposed Project and are not expected to have a notable contribution to cumulative noise impacts. However, as the Northside Area Development may be developed as individual projects, it has not been established which areas will be under construction during the same time period as the proposed Project. Hence, cumulative impacts associated with construction noise could be significant. To mitigate this potential significant cumulative impact, LAWA will implement *MM-N (RSA-N)-1* to reduce the potential for a significant cumulative noise impact from construction equipment utilizing Construction Staging Area B. Under this measure, if LAWA utilizes Construction Staging Area B for construction worker parking, construction trailers/portable offices, and/or outdoor storage laydown areas during construction of the proposed Project, it will allow no other new noise-producing activities within this construction staging area until use of this construction staging area for the proposed Project is completed.

Findings: Based on substantial evidence in the administrative record, including Section 4.6, *Noise*, of the Draft EIR, the BOAC hereby finds and determines that noise impacts related to the proposed Project would be less than significant with mitigation. The applicable LAX Master Plan Commitments and Mitigation Measures identified in Section 4.6, *Noise*, of the Draft EIR, including *MM-N-7 – Construction Noise Control Plan, MM-N-8 – Construction Staging, MM-N-9 – Equipment Replacement, MM-N-10 – Construction Scheduling, N-1 – Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program, Surface Transportation (ST)-16 – Designated Haul Routes,* and *ST-22 – Designated Truck Routes,* would be included in the Mitigation Monitoring and Reporting Program, along with Project-specific Mitigation Measures *MM-N (RSA-N)-1* and *MM-N (RSA-N)-2.* No further mitigation measures are required.

g. Construction Surface Transportation

Description of Effects: As analyzed in Section 4.7, *Construction Surface Transportation*, of the Draft EIR, construction of the proposed Project would generate vehicle trips on the local roadway system, I-405, and I-105 in the vicinity of LAX during construction, resulting from workers traveling to and from the project area and from trucks transporting materials and equipment. Nine LAX Master Plan Commitments pertain to construction surface transportation and are applicable to the proposed Project:

- *C-1. Establishment of a Ground Transportation/Construction Coordination Office*
- *C-2. Construction Personnel Airport Orientation*
- *ST-9. Construction Deliveries*
- *ST-12. Designated Truck Delivery Hours*
- *ST-14. Construction Employee Shift Hours*
- *ST-16. Designated Haul Routes*
- *ST-17. Maintenance of Haul Routes*
- *ST-18. Construction Traffic Management Plan*
- *ST-22. Designated Truck Routes*

Construction Surface Transportation Impacts

Potential traffic-related impacts for the Baseline Plus Project condition for the proposed Project were analyzed based on a comparison between the Project-specific traffic generated during the peak construction period (July 2015) and the baseline traffic volumes. The resulting levels of service were compared to the levels of service associated with the baseline condition. A significant impact would be realized if/when the thresholds of significance are met or exceeded. As described in Section 4.7, *Construction Surface Transportation*, no significant construction-related traffic impacts would occur under the Baseline Plus Project condition for the proposed Project. Therefore, no Project-specific mitigation measures were required.

Cumulative Construction Surface Transportation Impacts

The future cumulative traffic condition takes into consideration past, present, and reasonably foreseeable projects and includes growth in ambient background traffic and both airport and non-airport developments in the vicinity of the Airport. Twelve LAX-related construction projects are expected to occur during the one-year duration of the proposed Project construction. Projects that were considered in the cumulative construction surface transportation analysis include the Runway Safety Area Improvements – South Airfield; LAX Bradley West Project – Remaining Work; Terminal 3 Connector (Part of Bradley West Project); North Terminals Improvements; South Terminals Improvements; Central Utility Plant Replacement Project – Remaining Work; Midfield Satellite Concourse – North; Miscellaneous Projects and Improvements; West Aircraft Maintenance Area Project; LAX Northside Area Development; LAX Master Plan Alt. D/SPAS Development; and the Metro

Crenshaw/LAX Transit Corridor and Station. As analyzed in Section 4.7, *Construction Surface Transportation*, of the Draft EIR, the peak cumulative construction traffic period considering the aforementioned twelve projects, along with the proposed Project, is anticipated to occur in September 2015. However, no significant cumulative construction surface transportation impacts would occur under the Cumulative Plus Project condition for the proposed Project. Therefore, no Project-specific mitigation measures were required.

Findings: Based on substantial evidence in the administrative record, including Section 4.7, *Construction Surface Transportation*, of the Draft EIR, the BOAC hereby finds and determines that the proposed Project would not have significant construction surface transportation impacts. The BOAC hereby adopts the conclusions regarding less than significant surface transportation impacts. Applicable LAX Master Plan Commitments identified in Section 4.7, *Construction Surface Transportation*, of the Draft EIR, will be included in the Mitigation Monitoring and Reporting Program for the proposed Project and would ensure that surface transportation impacts would be less than significant. No further mitigation measures are required.

C. Less than Significant Impacts Identified in the Initial Study

The Initial Study prepared for the proposed Project (Appendix A of the Draft EIR) evaluated the potential impacts on a range of subjects as listed in Appendix G of the CEQA Guidelines. The analysis conducted for the Initial Study determined that no impact would occur relative to Aesthetics, Agricultural and Forestry Resources, Land Use and Planning, Mineral Resources, Population and Housing, and Recreation. The Initial Study also determined that the impacts of the proposed Project would be less than significant with respect to Geology and Soils, Public Services, and Utilities and Service Systems.

The Initial Study also determined that potentially significant impacts with respect to the discovery of unknown archaeological and paleontological resources, and human remains, during construction of the proposed Project would be reduced to a less than significant level with the implementation of the following LAX Master Plan Mitigation Measures:

Mitigation Measure MM-HA-4. Discovery. The FAA shall prepare an archaeological treatment plan (ATP), in consultation with the SHPO, that ensures the long-term protection and proper treatment of those unexpected archaeological discoveries of federal, state, and/or local significance found within the APE of the selected alternative. The ATP shall include a monitoring plan, research design, and data recovery plan. The ATP shall be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation: OHP Archaeological Resources Management.

Mitigation Measure MM-HA-5. Archaeological Monitoring. Any grading and excavation activities within LAX proper or the acquisition areas that have not been identified as containing redeposited fill material or having been previously disturbed shall be monitored by a qualified archaeologist. The archaeologist shall be retained by LAWA and shall meet the Secretary of the Interior's Professional Qualifications

Standards. The project archaeologist shall be empowered to halt construction activities in the immediate area if potentially significant resources are identified. Test excavations may be necessary to reveal whether such findings are significant or insignificant. In the event of notification by the project archaeologist that a potentially significant or unique archaeological/cultural find has been unearthed, LAWA shall be notified and grading operations shall cease immediately in the affected area until the geographic extent and scientific value of the resource can be reasonably verified. Upon discovery of an archaeological resource or Native American remains, LAWA shall retain a Native American monitor from a list of suitable candidates obtained from the Native American Heritage Commission.

Mitigation Measure MM-HA-6. Excavation and Recovery. Any excavation and recovery of identified resources (features) shall be performed using standard archaeological techniques and the requirements stipulated in the Archaeological Treatment Plan (ATP). Any excavations, testing, and/or recovery of resources shall be conducted by a qualified archaeologist selected by LAWA.

Mitigation Measure MM-HA-7. Administration. Where known resources are present, all grading and construction plans shall be clearly imprinted with all of the archaeological/cultural mitigation measures. All site workers shall be informed in writing by the on-site archaeologist of the restrictions regarding disturbance and removal as well as procedures to follow should a resource deposit be detected.

Mitigation Measure MM-HA-8. Archaeological/Cultural Monitor Report. Upon completion of grading and excavation activities in the vicinity of known archaeological resources, the Archaeological/Cultural monitor shall prepare a written report. The report shall include the results of the fieldwork and all appropriate laboratory and analytical studies that were performed in conjunction with the excavation. The report shall be submitted in draft form to the FAA, LAWA, and City of Los Angeles-Cultural Affairs Department. City representatives shall have 30 days to comment on the report. All comments and concerns shall be addressed in a final report issued within 30 days of receipt of city comments.

Mitigation Measure MM-HA-9. Artifact Curation. All artifacts, notes, photographs, and other project-related materials recovered during the monitoring program shall be curated at a facility meeting federal and state requirements.

Mitigation Measure MM-HA-10. **Archaeological Notification**. If human remains are found, all grading and excavation activities in the vicinity shall cease immediately and the appropriate LAWA authority shall be notified; compliance with those procedures outlined in Section 7050.5(b) and (c) of the State Health and Safety Code, Section 5097.94(k) and (i) and Section 5097.98(a) and (b) of the Public Resources Code shall be required. In addition, those steps outlined in Section 15064.5(e) of the CEQA Guidelines shall be implemented.

Mitigation Measure MM-PA-1. Paleontological Qualification and Treatment Plan. A qualified paleontologist shall be retained by LAWA to develop an acceptable monitoring and fossil remains treatment plan (that is, a PMTP) for construction related activities that could disturb potential unique paleontological resources within the project area. This plan shall be implemented and enforced by the project proponent during the initial phase and full phase of construction development. The

selection of the paleontologist and the development of the monitoring and treatment plan shall be subject to approval by the Vertebrate Paleontology Section of the LACM to comply with paleontological requirements as appropriate.

Findings: Based on substantial evidence in the administrative record, including the Initial Study, provided as Appendix A of the Draft EIR, the BOAC hereby finds and determines that construction and operations of the proposed Project would be less than significant with respect to Aesthetics, Agricultural and Forestry Resources, Cultural Resources, Geology and Soils, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Utilities and Service Systems. The Initial Study requires no further action or mitigation measures with respect to these resources or the findings of the Initial Study. Although archaeological, paleontological and human remains are not expected to be found during construction, LAX Master Plan Mitigation Measures associated with discovery of unknown archaeological and paleontological resources will be included in the Mitigation Monitoring and Reporting Program to further ensure a less than significant impact (as described in the Initial Study). The BOAC Hereby adopts the conclusions regarding less-than-significant construction- and operation-related impacts on these environmental subject areas.

D. Findings on Project Alternatives

a. Alternatives Considered and Rejected

Construct Standard RSA Alternative

This alternative proposes the construction of standard RSAs on both runways. It removes all objects located within the standard RSA dimensions (500 feet wide centered on the runway centerline extending 1,000 feet beyond the ends of the runway).

Runway 6L-24R

At the east end, the Runway 6L localizer, an access road, and a perimeter fence would be relocated outside of the RSA. Additionally, the commercial vehicle holding lots located east of the runway would require reconfiguration to accommodate the relocation of the Runway 6L localizer and service road. Along the northern edge of the RSA, portions of a service road would be relocated and a portion of the Argo Ditch would be covered. Lincoln Boulevard would be realigned to allow for the relocated service road and to remain clear of the runway object free area (OFA). This alternative would maintain all current take-off and landing distances.

Runway 6R-24L

All objects that are in the current RSAs or that would fall within the extended RSAs would be relocated. At the east end, the Runway 6R localizer, a service road, a perimeter fence and parking facilities would be relocated outside the RSA. At the west end, a section of Pershing Drive would be tunneled under the RSA, and portions of the service road and perimeter fence would be relocated outside the RSA. An extensive amount of earthwork would be necessary in the dunes to comply

with RSA grading standards. This alternative maintains all existing take-off and landing distances for Runways 6R and 24L.

Findings: Because this alternative would provide standard RSAs, it addresses the Project objectives associated with complying with FAA airport design standards. In addition, Runway 6L and Runway 24R would maintain current take-off and landing distances. However, this alternative would not be practical to implement and would not meet the required implementation schedule. Due to the high cost associated with relocation of Lincoln Boulevard and the tunneling of Pershing Drive, and the inability to implement these improvements before December 31, 2015, the BOAC hereby rejects the Standard RSA Alternative.

Reduce Runway Length Alternative

Runway 6L-24R

This alternative would meet all RSA requirements by reducing the runway length from 8,925 feet to 7,532 feet. At the east end, the Runway 24R threshold would be relocated 1,393 feet west to provide for 1,000 feet of RSA and allow Lincoln Boulevard to remain outside the OFA. The runway pavement east of the Runway 24R threshold would be demolished, portions of two service roads would be relocated, and a new connecting taxiway would be constructed.

Runway 6R-24L

This alternative would meet all RSA requirements by reducing the length of the runway from 10,285 feet to 9,335 feet. At the east end, the Runway 24L threshold would be relocated west 115 feet to provide 1,000 feet of RSA beyond the east end of the runway. At the west end, the Runway 6R threshold would be relocated east 835 feet to provide 1,000 feet of RSA beyond the west end of the runway. The 835 feet of runway west of the relocated threshold would be demolished and graded to RSA standards. The Runway 6R and 24L approach lights would require relocation.

Findings: This alternative would address the Project objectives to meet FAA airport design standards. This alternative would also satisfy Project criteria regarding practicality and implementation schedule. However, this alternative would not minimize the impacts on airfield and aircraft operations. This alternative had the largest adverse impact on usable runway length among all alternatives considered. For Runway 6L-24R, the available takeoff and landing lengths of the runway for both 6L and 24R departures, would be reduced by 1,393 feet. For Runway 6R-24L, the available takeoff and landing lengths of the runway for both 6R and 24L departures, would be reduced by 950 feet. A reduction in runway length would impose operational restrictions on long-haul and international air carrier arrivals and departures, which would include, but not be limited to, reduced fuel loads, reduced number of passengers, and/or reduced cargo to meet weight restrictions and performance requirements of a reduced runway. Because the reduced runway length resulting from this alternative would reduce the utility of Runways 6L-24R and 6R-24L and have a negative impact on aircraft operations at LAX, the BOAC hereby rejects the Reduce Runway Length Alternative.

Implement Declared Distances Alternative

Runway 6L-24R

This alternative proposes the covering of a portion of the Argo Ditch and the relocation of a service road along Lincoln Boulevard. The relocated service road would become the limiting object, providing for a 641-foot RSA beyond the Runway 24R end. In order to provide a 1,000-foot standard RSA on that end, declared distances would be implemented, reducing the Runway 6L ASDA and LDA by 359 feet, from 8,925 feet to 8,566 feet. This alternative would also provide the required minimum 600 feet of RSA prior to the Runway 24R landing threshold. A portion of Lincoln Boulevard would remain within the OFA. No improvements would be required on the Runway 6L end.

Runway 6R-24L

The declared distances alternative for Runway 6R-24L would include a 1,000-foot RSA from the Runway 6R localizer on the east side, which reduces the Runway 6R ASDA by 115 feet from 10,285 feet to 10,170 feet, and the Runway 6R LDA by 115 feet from 9,954 feet to 9,839. A service road would also be relocated around the east end of the RSA. A 1,000-foot RSA from the blast fence on the west side reduces the Runway 24L ASDA and LDA by 835 feet from 10,285 feet to 9,450 feet.

Findings: This alternative would address the Project objectives to meet FAA airport design standards. Because no substantial construction, practicality, or schedule issues are associated with this alternative, it would also be practicable to implement. The impacts associated with implementation of declared distances on Runway 6L-24R and Runway 6R were determined to be minimal. However, the implementation of declared distances on Runway 24L would reduce the utility of Runway 6R-24L, which the RSA Technical Team determined would have a negative impact on airport operations at LAX.

Implementation of declared distances on Runway 6L-24R met the Project objectives and was retained for further consideration as part of other alternatives. Implementation of declared distances on Runway 6R-24L did not meet all of the Project objectives for Runway 6R-24L and was eliminated from consideration. Therefore, the BOAC hereby rejects the full Implement Declared Distances Alternative.

Relocate, Shift or Realign the Runway Alternative(s)

Runway 6L-24R

This alternative proposes the shift of the runway to the west to ensure all objects at the east end remain clear of the RSA. The service road around the west end of the runway would need to be relocated outside the RSA. The existing service road just east of Pershing Drive would become the limiting object and allow for a runway shift of 615 feet to the west. This would require 615 feet of new runway pavement at the west end and the demolition of 615 feet of runway pavement on the east end. New connector taxiways would be required at both ends of the shifted runway. At the east

end, a portion of two service roads would be relocated outside the RSA and a portion of the Argo Ditch along Lincoln Boulevard would be covered. However, a section of Lincoln Boulevard would remain inside the OFA. This alternative would maintain all current take-off and landing distances.

Runway 6R-24L

Currently, the existing blast fence at the west end is the limiting object and requires a runway shift 835 feet east to obtain a 1,000-foot standard RSA at the west end. The 835 feet of runway pavement west of the new Runway 6R threshold and Taxiways E-16 and E-17 would be demolished and the Runway 6R approach lights relocated. The equivalent 835-foot shift of the east runway end would require the tunneling of Sepulveda Boulevard and the relocation of the Runway 6R localizer, as well as relocation or closure of numerous commercial parking/staging lots, a service road, and the perimeter fence. This alternative would increase the Runway 6R LDA to 10,285 feet and maintain all other take-off and landing distances.

Findings: Shifting the runway would meet the Project objectives by providing standard RSA distances and maintaining take-off and landing distances. However, this alternative would not address practicality and implementation schedule objectives. Staggering the runway thresholds causes operational impacts to the airport by increasing the time aircraft must wait to takeoff in order to avoid aircraft wake turbulence. Additionally, it is highly unlikely that this alternative could be constructed by the required completion date and it was considered to be too expensive when compared to other alternatives. Because of the length of time and cost associated with implementation of this alternative, the BOAC hereby rejects the Relocate, Shift or Realign the Runway Alternative(s).

Install Standard Engineering Materials Arresting System (EMAS) Alternative

Runway 6L-24R

Under this alternative, a standard 550-foot EMAS bed would be installed behind the Runway 24R end. This EMAS bed assumed a 50-foot setback from the Runway 24R threshold. Although the EMAS bed length is shown to be 550 feet, the ultimate length would be determined during the design phase and could be different than assumed. Installation of a standard EMAS bed would require a 600-foot RSA on the east end, necessitating the covering of a portion of the Argo Ditch along Lincoln Boulevard and relocation of the service road. A portion of Lincoln Boulevard would remain inside the OFA. This alternative would maintain all current take-off and landing distances.

Runway 6R-24L

Standard EMAS beds would be installed at both runway ends. Although the EMAS bed length is shown to be 550 feet, the ultimate length would be determined during the design phase and could be different than what is assumed for this study. These beds assume a 50-foot setback from the runway ends, requiring a total length of 600 feet for the RSA. The existing blast fence is the limiting object on the west end, requiring the Runway 6R threshold to be relocated east 455 feet to provide a 600-

foot long area for the installation of the EMAS bed. The 455 feet of runway pavement west of the new Runway 6R threshold and Taxiways E-16 and E-17 would be demolished and the Runway 6R approach lights relocated. The existing Runway 6R localizer is the limiting object on the east end, allowing for a Runway 24R end shift of 265 feet to the east. A service road would be relocated to the east around the RSA. The Standard EMAS configuration for Runway 6R-24L results in a net runway length reduction of 190 feet from 10,285 feet to 10,095 feet.

Findings: Installation of standard EMAS beds would address Project objectives to meet FAA airport design standards. While the required standard RSA distances would not be obtained, a standard EMAS in accordance with Section 4 of FAA AC 150/5220-22B provides a level of safety that is generally equivalent to a full RSA built to the dimensional standards. However, it is highly unlikely that this alternative could be constructed by the required completion date. Additionally, installation of an EMAS on three runway ends would be cost prohibitive. Because of the substantial complexities and cost associated with this alternative, the BOAC hereby rejects the Install Standard EMAS Alternative.

Refinement #1 Alternative

Runway 6L-24R

The Runway 6L-24R Refinement #1 Alternative is a combination of the Declared Distances and the Shift Runway Alternatives. The RSA improvements to the east end would be identical to the Declared Distances alternative as described in Section 5.3.1.2.3 of the Draft EIR. The improvements to the west end are similar to the Shift Runway alternative in Section 5.3.1.2.4 of the Draft EIR, but would require a runway extension of 359 feet rather than 615 feet. A section of Taxiway BB would also be demolished. This refined alternative increases the runway length by 359 feet to 9,284 feet. The Runway 6L ASDA would be retained, whereas the Runway 6L LDA would be reduced to 8,566 feet.

Runway 6R-24L

The Runway 6R-24L Refinement #1 Alternative is a combination of the Declared Distances and the Shift Runway Alternatives. The RSA improvements to the east end would include an 835-foot extension but the Runway 24L threshold would remain in its existing location. The improvements to the west end would include implementation of declared distances, which would reduce the Runway 24L LDA to 9,450 feet and increase the Runway 6R TORA and TODA to 11,120 feet; all other runway distances would be maintained.

Findings: The Refinement #1 Alternative would meet the Project objectives by providing standard RSA distances that would satisfy P.L. 109-115 and 14 CFR Part 139. However, this alternative would not satisfy Project practicality and implementation schedule criteria. It is highly unlikely that this alternative could be constructed by the required completion date and it was considered to be too expensive when compared to other alternatives. Because of the length of time and cost associated with implementation of this alternative, the BOAC hereby rejects the Refinement #1 Alternative.

b. Alternatives Carried Forward for Full Evaluation

Alternative 1: No Project

Under the No Project Alternative, the RSA improvements as described in Section 2.4, *Project Characteristics*, of the Draft EIR would not occur and LAWA would be in non-compliance with P.L. 109-115, which requires all 14 CFR Part 139 certificated airports to comply with FAA RSA design guidelines by December 31, 2015. Regarding pavement reconstruction, it is reasonably foreseeable that under the No Project Alternative, typical, as-needed maintenance repair of poor quality pavement would potentially still be required on Runway 6L-24R and Taxiway AA to maintain safe airport operations.

As discussed below, most impacts related to the environmental topics evaluated in the Draft EIR under the No Project Alternative would be similar to the impacts under the proposed Project. However, air quality and human health risk assessment impacts would be different under the No Project Alternative compared to the proposed Project. The No Project Alternative would not meet the Project's main objective of compliance with P.L. 109-115.

Air Quality. For the proposed Project, the significant and unavoidable impact related to regional air quality is associated with the closure of the runway, shortened runway period, and the shift in operations to other runways during construction. Implementation of the No Project Alternative would not require closure of the runway for 4 months and would not result in a temporary shift in airport operations. Therefore, impacts related to air quality during construction would be less than significant under the No Project Alternative. Additionally, the No Project Alternative would not contribute cumulatively to air quality impacts if as-needed maintenance pavement repairs do not require a shift in operations to other runways during construction. In this case, cumulative impacts would be less than significant. However, if pavement repairs of Runway 6L-24R under the No Project Alternative requires closure of the runway and the shifting of operations to other runways during construction, cumulative impacts could be significant and unavoidable.

Biological Resources. Construction and operations of the proposed Project would require ground disturbance and wetland removal; however, it is anticipated that construction of the proposed Project would have a less than significant impact on biological resources. As the No Project Alternative would not involve any construction, it would similarly result in less than significant impacts to biological resources.

Greenhouse Gas Emissions. Under the No Project Alternative, none of the aforementioned grading, ground disturbance, or wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would mostly occur on existing paved surfaces. Minimal Greenhouse Gas impacts from the No Project Alternative would be anticipated.

Human Health Risk. Activities associated with the No Project Alternative would not require closure of the runway for 4 months and would not require a shift in aircraft operations during construction. Therefore, impacts related to human health risk during construction would be less than significant under the No Project Alternative.

However, as stated in Section 5.3.2.1 of the Draft EIR, under the No Project Alternative, pavement reconstruction on Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, acute hazard quotients for acrolein at receptors representing residents and off-site adult workers could be similar to the proposed Project, and they could be significant and unavoidable.

Hydrology and Water Quality. Under the No Project Alternative, none of the aforementioned grading, ground disturbance, or wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would mostly occur on existing paved surfaces. Hydrology and water quality impacts from the No Action Alternative would be anticipated to be less than significant.

Noise. Implementation of the No Project Alternative would not require closure of the runway for 4 months, a shortened runway period, or result in a temporary shift in airport operations. Therefore, impacts related to noise during construction would be less than significant under the No Project Alternative. However, as stated in Section 5.3.2.1 of the Draft EIR, under the No Project Alternative, pavement reconstruction of Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, noise impacts could be similar to the proposed Project, and they would be significant and unavoidable, if mitigation measures are not incorporated.

The No Project Alternative would not contribute cumulatively to noise impacts if as-needed maintenance pavement repairs do not require a shift in operations to other runways during construction. In this case, cumulative impacts would be less than significant. However, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, cumulative impacts could be significant and unavoidable if mitigation measures are not incorporated.

Construction Surface Transportation. The No Project Alternative would not result in any change in LAX operations or capacity. If as-needed maintenance activities are undertaken, these activities would result in less traffic than assumed under the proposed Project. Therefore traffic impacts from the No Action Alternative would be less than significant.

Findings: For reasons discussed above, the BOAC hereby rejects the No Project Alternative. While significant impacts would be reduced for air quality and human health risk, this Alternative would not meet the objectives of the proposed Project and would cause LAX to be non-compliant with P.L. 109-115.

E. Findings on Suggestions Included in Comments on the Draft EIR

a. Comment NRSA-AS00002-2

Suggestion: The commenter recommends LAWA implement mitigation for impacts to Argo Ditch, outside of the FAA safety zone, at a ratio of no less than 2-acres of creation/restoration for every 1-acre of impact. Mitigation should be of the same vegetation communities that comprise the impact area and should provide similar or improved function and value to the watershed.

Response: As identified in Chapter 3 of the Final EIR, as well as the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project, LAWA will implement a Project-specific Mitigation Measure, *MM-HWQ (RSA-N)-1*, to mitigate impacts to the Argo Ditch at a minimum ratio of 2:1 due to permanent loss of up to 720 linear feet of the Argo Ditch. Mitigation would occur at an off-airport location, and may include restoration, establishment, enhancement, preservation, mitigation banking, and in-lieu fee or equivalent as coordinated with the respective agencies. LAWA has met with the Department to discuss the proposed Project and is in the process of drafting a Lakebed and Stream Alteration Agreement (LSA) for the proposed impacts to the Argo Ditch. LAWA will coordinate with the Department to finalize an LSA for the proposed Project and to identify suitable locations for the required mitigation.

b. Comment NRSA-AS00002-3

Suggestion: Commenter recommends that any impacts to the Lewis' evening primrose be mitigated by preserving off-site land with an existing population of Lewis' evening primrose with a conservation easement. If seed or plants must be collected, planning should be included in the final EIR to ensure this takes place at the appropriate time of year. Any required restoration site should be clearly identified in a Habitat Mitigation and Management Plan for the project. It is recommended the HMMP have success criteria, outline permanent protection measures and funding for the restoration, identify a funding mechanism for the proposed mitigation, and be submitted to the Department for review and approval.

Response: As identified in Chapter 3 of the Final EIR, as well as the Mitigation Monitoring and Reporting Program (MMRP) for the proposed Project, LAWA will implement a Project-specific Mitigation Measure, *MM-BC (RSA-N)-1*, to mitigate potential impacts to the Lewis' evening primrose if these plants cannot be avoided. LAWA or its designee shall prepare and implement a plan to compensate for the loss of individuals of the Lewis' evening primrose in coordination with the appropriate resource agencies. LAWA or its designee shall collect seed from those plants to be removed, and properly clean and store the collected seed until used. A mitigation site of suitable habitat equal to the area of impact shall be delineated within areas of the Los Angeles/El Segundo Dunes or equivalent. Collected seed shall be broadcast (distributed) after the first wetting rain following or concurrent with the associated impact, preferentially in the fall or early winter. LAWA or its designee shall implement a monitoring plan to monitor the establishment of individuals of Lewis' evening primrose for a period of not more than five years. Performance criteria shall include the establishment of an equal number of plants as that impacted following the

distribution of seed within the mitigation site. Performance criteria shall also include confirmation of recruitment for two years following the first year flowering is observed and establishment of individuals throughout the mitigation area within three years following the first year flowering is observed.

~~**c. Comment**~~

~~Suggestion:~~

~~Response:~~

F. Findings on Responses to Comments on the Draft EIR and Revisions to the Final EIR

Responses to comments made on the Draft EIR and revisions made in the final EIR merely clarify and amplify the analysis presented in the document and do not trigger the need to recirculate per CEQA Guidelines Section 15088.5(b).

G. Location and Custodian of Records

The documents and other materials that constitute the administrative record for LAWA's actions related to the proposed Project are located at LAWA, One World Way, 2nd Floor, Los Angeles, CA 90045. The LAWA Capital Programming and Planning Division is the custodian of the administrative record for the Project.