Los Angeles International Airport (LAX)
West Aircraft Maintenance Area Project
Project Design Features, Commitments, and Mitigation Monitoring and Reporting Program

February 2014

This page left intentionally blank

The California Environmental Quality Act (CEQA), Section 21081.6, requires public agencies to adopt a monitoring and reporting program for the changes to a project that have been adopted to mitigate or avoid significant effects on the environment. This document satisfies the CEQA requirements relative to the mitigation monitoring and reporting program for the Los Angeles International Airport (LAX) West Aircraft Maintenance Area (WAMA) Project (proposed Project). In addition to encompassing the mitigation measures set forth in the Final Environmental Impact Report (EIR) for the proposed Project, the monitoring and reporting program presented herein also includes, as further described below, project design features that Los Angeles World Airports (LAWA) will incorporate into the implementation of the proposed Project and LAX Master Plan Commitments that are applicable to the Project. As such, the entirety of this document is referred to as the Project Design Features, Commitments, and Mitigation Monitoring and Reporting Program (MRP) for the LAX WAMA Project.

Based on the analysis contained in Chapter 4.0 (Environmental Impact Analysis) of the WAMA Draft Environmental Impact Report (EIR), and revisions to the Project included in the WAMA Final EIR (as detailed in Chapter 3, Corrections and Additions to the Draft EIR, of the Final EIR), several Project-specific Project Design Features (PDFs) have been included as elements of the Project to address suggestions requested by commenters on the WAMA Draft EIR. The Final EIR for the LAX Master Plan (State Clearinghouse No. 1997061047) included an analysis of the environmental impacts of future development at LAX, including aircraft maintenance areas and related ancillary facilities. The LAX Master Plan Final EIR contains LAX Master Plan Commitments (Los Angeles World Airports [LAWA] adopted) and Mitigation Measures that apply to the LAX property, including the Project site. Therefore, LAWA would implement applicable commitments and mitigation measures identified in the LAX Master Plan Mitigation Monitoring and Reporting Program (LAX MMRP) as well as Project-specific Mitigation Measures (MM's) to reduce impacts associated with the proposed Project. The following table provides, first by type of measure (i.e., PDF, Commitment or MM), then by environmental discipline, the number, title, and text of each applicable Project-specific PDFs and MMs, LAX Master Plan Commitments and MMs. For Project-specific MMs and LAX Master Plan Commitments and MMs, the impact being addressed, the timing of implementation, monitoring frequency, and actions indicating compliance.

This MRP (the WAMA MRP) as adopted in conjunction with approval of the proposed Project will be in place through all phases of the Project and will help ensure that project objectives are achieved while maintaining adherence to all PDFs, Commitments, and MMs. The agency responsible for administering the Project (i.e., LAWA), and hence the implementation of the PDFs, Project-specific MMs, LAX Master Plan Commitments and MMs, will ensure compliance with all provisions and ensure that monitoring is documented through periodic reporting (i.e., LAX MMRP annual progress report) and that deficiencies, if any, are promptly addressed. The designated environmental monitor will track and document compliance, notify the appropriate parties of any non-compliance and work with such parties to correct the problem. Records pertaining to implementation of the WAMA MRP will be managed in keeping with LAWA's procedures and records management practices. The status of the measures applicable to LAWA will be summarized each year in the annual LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) Progress Report, which is accessible to the public on LAWA's website (i.e., www.ourlax.org).

The PDFs, Commitments, and MMs in the following tables are from the EIR and apply to components of the Project as approved, as indicated below.

This page intentionally left blank.

Project-Specific Project Design Features

PDF		Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
WAMA-PDF-1 **Monitoring Agency:** **LAWA**	**Quarterly Reporting**: The tenants of the WAMA site will be required to provide to LAWA a quarterly report indicating the number, time of day, duration, and specific aircraft type of all aircraft engine high-power and low-power ground run-ups conducted during the reporting period. This reporting requirement shall also extend to any airline using the WAMA site for ground run-ups as shall be monitored by LAWA Airfield Operations. The completeness and accuracy of the report shall be attested to by a company official of the tenant. In conjunction with application of a ground run-up reporting program, LAWA will develop a tiered penalty program applicable to violations of the LAX nighttime curfew for aircraft engine high-power ground run-ups. The penalty structure will be modeled after policies seen at other similarly situated airports (e.g., Seattle Tacoma International Airport). An example of the penalty structure includes: a Letter of Admonishment for first offense within a one year period and fines for second, third and additional offences within a one year period. It is anticipated that LAWA's development of a financial penalty program, to the extent allowed by law, will be tiered, whereby the amount of financial penalty is progressively higher for each recurring violation, with a substantial increase in penalty amounts for repeat violations that occur within a short amount of time.	First implemented prior to occupancy of the proposed Project	Quarterly	LAWA will require tenants of the WAMA site to abide by the requirement; status updates in annual LAX MMRP progress report.
WAMA-PDF-2 **Monitoring Agency:** **LAWA**	**APU Usage While Aircraft is Parked:** Aircraft parked at the WAMA site shall not utilize on-board auxiliary power units (APUs) for aircraft electrical power or interior cooling at parking spaces where ground power and preconditioned air are available, with the exceptions being: (1) if an APU is being serviced or checked relative to those functions; or (2) for some limited time if APU is required to tug/tow aircraft to/from WAMA site (i.e., for proper operation of essential on-board electronics while being moved). In addition to the proposed RON kits with ground power and preconditioned air for aircraft parking positions along the perimeter of the site (i.e., at hangar areas along World Way West and RON/RAD positions along Pershing Drive), the final WAMA site design will include additional aircraft ground power connect ports at the two interior RON/RAD positions within the site.	First implemented prior to occupancy of the proposed Project	Ongoing	LAWA will require tenants of the WAMA site to abide by the requirement; status updates in annual LAX MMRP progress report.
WAMA-PDF-3 **Monitoring**	**Aircraft Taxiing:** All aircraft traveling to or from WAMA during nighttime hours (11:00 p.m. to 6:00 a.m.) must be tugged/towed and are not allowed to taxi	First implemented prior to occupancy	Ongoing	LAWA will require tenants of the WAMA site to

Project-Specific Project Design Features

PDF		Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Agency: **LAWA**	under own power, unless otherwise directed by LAWA Airport Operations in situation-specific circumstances where taxiing is required to maintain airfield safety and efficiency.	of the proposed Project		abide by the requirement; status updates in annual LAX MMRP progress report.
WAMA-PDF-4 **Monitoring Agency:** **LAWA**	**Aircraft Engine Ground Run-Ups:** Aircraft engine high-power ground run-ups of any duration and low-power run-ups of five minutes or more can only occur at the onsite blast fence; and, all run-ups (high-power and low-power of any duration) are prohibited anywhere on the WAMA site between 11:00 p.m. and 6:00 a.m.	First implemented prior to occupancy of the proposed Project	Ongoing	LAWA will require tenants of the WAMA site to abide by the requirement; status updates in annual LAX MMRP progress report.
WAMA-PDF-5 **Monitoring Agency:** **LAWA**	**Use of the WAMA Site:** Aircraft parking spaces at WAMA site cannot be used for passenger boarding or deplaning (i.e., cannot be used as remote gates), except during or as a result of emergency circumstances.	First implemented prior to occupancy of the proposed Project	Ongoing	LAWA will require tenants of the WAMA site to abide by the requirement; status updates in annual LAX MMRP progress report.
WAMA-PDF-6 **Monitoring Agency:** **LAWA**	**Automated Run-Up Monitoring System:** An aircraft engine ground run-up monitoring system, including a sound level meter and video camera, will be provided at the run-up area. LAWA will make all reasonable efforts to make data from the monitoring system accessible to the public via an internet link provided on LAWA's website (i.e., lawa.org).	Final Design Plans; Prior to occupancy of the proposed Project	Plan Check; Ongoing	Completion of an aircraft engine ground run-up monitoring system; status updates in annual LAX MMRP progress report.
WAMA-PDF-7 **Monitoring Agency:** **LAWA**	**Resurfacing a Portion of Imperial Highway:** LAWA will work with City of Los Angeles Bureau of Street Services (LABSS) to contribute its reasonable allocable share subject to FAA approval toward resurfacing of Imperial within the City of Los Angeles's jurisdiction; if the LABSS undertakes this resurfacing project, LAWA will also work with LABSS and the Council District 11 office to schedule resurfacing work. LAWA commits to meetings with Caltrans (alongside the City of El Segundo) to discuss improvements to areas under Caltrans control but cannot make any guarantees as to Caltrans' actions.	Planning process associated with resurfacing of Imperial within the City of Los Angeles' jurisdiction	Ongoing	Status updates in annual LAX MMRP progress report.

Project-Specific Mitigation Measures

	MM	Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Air Quality					
MM-AQ (WAMA)-1 **Monitoring Agency:** **LAWA**	On-road trucks used on LAX construction projects with a gross vehicle weight rating of at least 19,500 pounds shall, at a minimum, comply with USEPA 2010 on-road emissions standards for PM10 and NOX. Contractor requirements to utilize such on-road haul trucks or the next cleanest vehicle available will be subject to the provisions of LAWA Air Quality Control Measure 2"x" (part of LAX Master Plan Commitment LAX-AQ-2, LAX Master Plan - Mitigation Plan for Air Quality; Construction-Related Measures). All off-road diesel-powered construction equipment greater than 50 horsepower shall meet, at a minimum, USEPA Tier 3 off-road emission standards. In addition, all off-road diesel-powered construction equipment greater than 50 hp with engines meeting USEPA Tier 3 off-road emission standards shall be retrofitted with a CARB-verified Level 3 Diesel Emissions Control Strategies (DECS). Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In the event the Contractor is using off-road diesel-powered construction equipment with engines meeting USEPA Tier 4 off-road emission standards and is already supplied with a factory-equipped diesel particulate filter, no retrofitting with DECS is required. Contractor requirements to utilize Tier 3 equipment or next cleanest equipment available will be subject to the provisions of LAWA Air Quality Control Measure 2"x" (part of LAX Master Plan Commitment LAX-AQ-2, LAX Master Plan - Mitigation Plan for Air Quality; Construction-Related Measures). LAWA will encourage construction contractors to apply for SCAQMD "SOON" funds to accelerate clean-up of off-road diesel engine emissions.	Air pollutant emissions associated with the construction (On- and Off-Road Mobile sources) of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project	Once, upon completion of implementation plan, and as specified in the implementation plan	Inclusion of measure in construction contracts. Completion of implementation plan for construction-related measures within the MRP; status updates in annual LAX MMRP progress report.

Project-Specific Mitigation Measures

	MM	Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Hazards and Hazardous Materials					
MM-HAZ (WAMA)-1 **Monitoring Agency:** **LAWA**	Prior to construction at the Project site, additional research shall be undertaken to determine if abandoned/plugged wells at the Project site were abandoned per the current regulations. If necessary, these wells shall be properly abandoned per current regulations. Since the Division of Oil, Gas, and Geothermal Resources (DOGGR) maps are not guaranteed to be accurate, a magnetometer survey shall be completed to determine the exact location of these abandoned/plugged oil wells. If the magnetometer survey successfully determines the location of these oil wells, a subsurface investigation in coordination with the DOGGR and City of Los Angeles Fire Department, as applicable, will be performed to determine if the abandoned wells pose a risk during the grading and construction activities. Specific DOGGR regulations and requirements for the inspection, testing, plugging, and abandonment of oil wells are contained within Chapter 4, Development, Regulation, and Conservation of Oil and Gas Resources, Article 3 of the State of California Code of Regulations. These regulations require a specific set of actions be taken, dependent on the found state of the abandoned oil wells (e.g. for open holes, a cement plug must extend from the total depth of the well or from at least 100 feet below the bottom of each oil or gas zone to at least 100 feet above the top of each oil or gas zone, for cased holes, all perforations are to be plugged with cement, with the plug extending at least 100 feet above the top of a landed liner, the uppermost perforations, the casing cementing point, the water shut-off holes, or the oil or gas zone, whichever is highest). Chapter V, Article 7, (Fire Code) (57.90.01-45) of the Los Angeles City Municipal	Potential hazards associated with abandoned/plugged oil wells on the Project site.	Prior to construction	Once prior to construction	Completion of a magnetometer survey to determine the exact location of abandoned/plugged oil wells. Completion of implementation plan for construction-related measures within the MRP; status updates in annual LAX MMRP progress report.

Project-Specific Mitigation Measures

	MM	Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	Code further regulates the location, drilling safeguards, and abandonment of oil wells in the City. In the event oil wells are found that have not been properly abandoned, the procedures and agency oversight prescribed in these regulations would serve as performance standards to ensure that significant impacts associated with the potential migration of fluids and groundwater contamination would be avoided during construction of the proposed Project. Construction will comply with all applicable requirements of DOGGR and the City of Los Angeles Fire Department for the investigation and/or re-abandonment of the well(s).				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Air Quality					
MM-AQ-1 **Monitoring Agency:** **LAWA**	**LAX-AQ-1 – General Air Quality Control Measures** This measure describes a variety of specific actions to reduce air quality impacts associated with projects at LAX, and applies to all projects. Specific measures are identified below:				
1a	Watering (per SCAQMD Rule 403 and CalEEMod default) – twice daily.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
1b	Ultra-low sulfur diesel (ULSD) fuel will be used in construction equipment.	Air pollutant emissions associated with the construction (On- and Off-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
1c	Post a publicly visible sign with the telephone number and person to contact regarding dust complaints; this person shall respond and take corrective action within 24 hours.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	During construction of the proposed Project	Prior to commencing construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
1d	Prior to final occupancy, the applicant demonstrates that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	Prior to final occupancy	Once prior to occupancy	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
1e	All roadways, driveways, sidewalks, etc., being installed as part of the project should be completed as soon as possible; in addition, building pads should be laid as soon as possible after grading.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
1f	Prohibit idling or queuing of diesel-fueled vehicles and equipment in excess of five minutes. This requirement will be included in specifications for any LAX projects requiring on-site construction.	Air pollutant emissions associated with the construction (On- and Off-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
1g	Require that all construction equipment working on-site is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules.	Air pollutant emissions associated with the construction (Mobile and Stationary sources) of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project and during construction of the proposed Project	Prior to commencing construction and periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
LAX-AQ-2 Monitoring Agency: **LAWA**	**LAX-AQ-2 – LAX Master Plan - Mitigation Plan for Air Quality; Construction-Related Measures** This measure describes numerous specific actions to reduce fugitive dust emissions and exhaust emissions from on-road and off-road mobile and stationary sources used in construction. Some components of LAX-AQ-2 are not readily quantifiable, but would be implemented as part of LAX Master Plan projects. These control strategies are expected to reduce construction-related emissions. Specific measures applicable to the Project are below:				
2a	All diesel-fueled equipment used for construction will be outfitted with the best available emission control devices, where technologically feasible, primarily to reduce emissions of diesel particulate matter (PM), including fine PM ($PM_{2.5}$), and secondarily, to reduce emissions of NO_X. This requirement shall apply to diesel-fueled off-road equipment (such as construction machinery), diesel-fueled on-road vehicles (such as trucks), and stationary diesel-fueled engines (such as electric generators). (It is unlikely that this measure will apply to equipment with Tier 4 engines.) The emission control devices utilized in construction equipment shall be verified or certified by California Air Resources Board or US Environmental Protection Agency for use in on- road or off-road vehicles or engines. For multi-year construction projects, a reassessment shall be conducted annually to determine what constitutes a best available emissions control device.	Air pollutant emissions associated with the construction (Off-Road and On-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
2b	Watering (per SCAQMD Rule 403 and CalEEMod default) – three times daily.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2c	Pave all construction access roads at least 100 feet onto the site from the main road.	Air pollutant emissions associated with the construction (Fugitive Dust) of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project	Prior to commencing construction/ grading	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2d	To the extent feasible, have construction employees' work/commute during off-peak hours.	Air pollutant emissions associated with the construction (On-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2e	Make available on-site lunch trucks during construction to minimize off-site worker vehicle trips.	Air pollutant emissions associated with the construction (On-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2f	Utilize on-site rock crushing facility, when feasible, during construction to reuse rock/concrete and minimize off-site truck haul trips.	Air pollutant emissions associated with the construction (on-road mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2g	Specify combination of electricity from power poles and portable diesel- or gasoline-fueled generators using "clean burning diesel" fuel and exhaust emission controls.	Air pollutant emissions associated with the construction (stationary point source controls) of the proposed Project	Prior to commencement of construction	Once prior to construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
2h	Suspend use of all construction equipment during a second- stage smog alert in the immediate vicinity of LAX.	Air pollutant emissions associated with the construction (mobile and stationary sources) of the proposed Project	During construction/ grading of the proposed Project	During any second stage smog alerts occurring during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2i	Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for intended job).	Air pollutant emissions associated with the construction (mobile and stationary sources) of the proposed Project	During construction/ grading of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2j	Prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices.	Air pollutant emissions associated with the construction (mobile and stationary sources) of the proposed Project	Prior and during construction/ grading of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2k	The contractor or builder shall designate a person or persons to ensure the implementation of all components of the construction-related measure through direct inspections, record reviews, and investigations of complaints.	Air pollutant emissions associated with the construction of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project	Once prior to issuance of grading or demolition permit of the proposed Project	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2l	LAWA will locate rock-crushing operations and construction material stockpiles for all LAX-related construction in areas away from LAX-adjacent residents, to the extent possible, to reduce impacts from emissions of fugitive dust.	Air pollutant emissions associated with the construction (fugitive dust) of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project	Once prior to issuance of grading or demolition permit of the proposed Project	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
2m	LAWA will ensure that there is available and sufficient infrastructure on-site, where not operationally or technically infeasible, to provide fuel to alternative-fueled vehicles to meet all requests for alternative fuels from contractors and other users of LAX. This will apply to construction equipment and to operations-related vehicles on-site. This provision will apply in conjunction with construction or modification of passenger gates related to implementation of the LAX Master Plan relative to the provision of appropriate infrastructure for electric GSE.	Air pollutant emissions associated with the construction (mobile sources) of the proposed Project	Prior and during construction/ grading of the proposed Project	Once prior to construction and periodically during construction	Inclusion in specifications for the WAMA project; status updates in annual LAX MMRP progress report.
2n	On-road trucks used on LAX construction projects with a gross vehicle weight rating of at least 19,500 pounds shall, at a minimum, comply with USEPA 2007 on-road emissions standards for PM_{10} and NO_X.	Air pollutant emissions associated with the construction (on-road mobile sources) of the proposed Project	Prior and during construction/ grading of the proposed Project	Once prior to construction and periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
LAX-AQ-4 Monitoring Agency: **LAWA**	**LAX-AQ-4 – Operations-Related Control Measures** The principal feature of this measure is the conversion of LAX GSE to low and ultra-low emission technology (e.g., electric, fuel cell, and other future low-emission technologies). It should be noted that no estimate of the air quality benefit (i.e., emission reductions) of other secondary measures is made in this analysis. Specific operations-related control measures applicable to the Project are identified below:				
4a	LAX GSE will be converted to low- and ultra-low emission technology (e.g., electric, fuel cell, and other future low-emission technologies). Both LAWA- and tenant-owned equipment will be included in this conversion program, which will be implemented in phases. LAWA will assign a GSE coordinator whose responsibility it will be to ensure the successful conversion of GSE in a timely manner. This coordinator will have adequate authority to negotiate on behalf of the City and have sufficient technical support to evaluate technical issues that arise during the implementation of this measure.	Operations-related air pollutant emissions.	Work with assigned GSE coordinator regarding implementation conversion	Ongoing	Inclusion of measure in construction contracts; Status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
4d	LAWA will require the use of electric lawn mowers and leaf blowers, as these units become available for commercial use, for landscape maintenance associated with the proposed project.	General air pollutant emissions.	Prior to completion of proposed Project	Once prior to completion of the proposed Project	Inclusion of measure in landscaping maintenance contracts; status updates in annual LAX MMRP progress report.
4e	LAWA will require the conversion of sweepers to alternative fuels or electric power for ongoing airfield and roadway maintenance. In the 2006 GSE inventory, two of ten sweepers were electric powered and one was either CNG or LPG fueled. HEPA filters will be installed on airport sweepers where the use of HEPA filters is technologically and financially feasible and does not pose a safety hazard to airport operations.	General air pollutant emissions.	Work with assigned GSE coordinator regarding implementation	Ongoing	Status updates in annual LAX MMRP progress report.
4f	LAWA will ensure that there is available and sufficient infrastructure on-site, where not operationally or technically infeasible, to provide fuel to alternative-fueled vehicles to meet all requests for alternative fuels from contractors and other users of LAX. This will apply to construction equipment and to operations-related vehicles on-site. This provision will apply in conjunction with construction or modification of passenger gates related to implementation of the LAX Master Plan relative to the provision of appropriate infrastructure for electric GSE.	Air pollutant emissions related to operational vehicles.	Work with assigned GSE coordinator regarding implementation	Ongoing	Status updates in annual LAX MMRP progress report.
Greenhouse Gas Emissions					
MM-AQ-1 **Monitoring Agency:** **LAWA**	**LAX-AQ-1 – General Air Quality Control Measures** This measure describes a variety of specific actions to reduce air quality impacts associated with projects at LAX, and applies to all projects. Specific measures are identified below:				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
1f	Prohibit idling or queuing of diesel-fueled vehicles and equipment in excess of five minutes. This requirement will be included in specifications for any LAX projects requiring on-site construction.	Air pollutant emissions associated with the construction (On- and Off-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
1g	Require that all construction equipment working on-site is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules.	Air pollutant emissions associated with the construction (Mobile and Stationary sources) of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project and during construction of the proposed Project	Prior to commencing construction and during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
LAX-AQ-2 Monitoring Agency: **LAWA**	**LAX-AQ-2 – LAX Master Plan - Mitigation Plan for Air Quality; Construction-Related Measures** This measure describes numerous specific actions to reduce fugitive dust emissions and exhaust emissions from on-road and off-road mobile and stationary sources used in construction. Some components of LAX-AQ-2 are not readily quantifiable, but would be implemented as part of LAX Master Plan projects. These control strategies are expected to reduce construction-related emissions. Specific measures applicable to the Project are below:				
2d	To the extent feasible, have construction employees' work/commute during off-peak hours.	Air pollutant emissions associated with the construction (On-Road Mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2e	Make available on-site lunch trucks during construction to minimize off-site worker vehicle trips.	Air pollutant emissions associated with the construction (On-Road Mobile sources) of the proposed Project	During construction/ grading of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
2f	Utilize on-site rock crushing facility, when feasible, during construction to reuse rock/concrete and minimize off-site truck haul trips.	Air pollutant emissions associated with the construction (on-road mobile sources) of the proposed Project	During construction of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2g	Specify combination of electricity from power poles and portable diesel- or gasoline-fueled generators using "clean burning diesel" fuel and exhaust emission controls.	Air pollutant emissions associated with the construction (stationary point source controls) of the proposed Project	Prior to commencement of construction	Once prior to construction.	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2i	Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for intended job).	Air pollutant emissions associated with the construction (mobile and stationary sources) of the proposed Project	During construction/ grading of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2j	Prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices.	Air pollutant emissions associated with the construction (mobile and stationary sources) of the proposed Project	Prior and during construction/ grading of the proposed Project	Periodically during construction	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.
2k	The contractor or builder shall designate a person or persons to ensure the implementation of all components of the construction-related measure through direct inspections, record reviews, and investigations of complaints.	Air pollutant emissions associated with the construction of the proposed Project	Prior to issuance of grading or demolition permit of the proposed Project	Once prior issuance of grading or demolition permit of the proposed Project	Inclusion of measure in construction contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
2m	LAWA will ensure that there is available and sufficient infrastructure on-site, where not operationally or technically infeasible, to provide fuel to alternative-fueled vehicles to meet all requests for alternative fuels from contractors and other users of LAX. This will apply to construction equipment and to operations-related vehicles on-site. This provision will apply in conjunction with construction or modification of passenger gates related to implementation of the LAX Master Plan relative to the provision of appropriate infrastructure for electric GSE.	Air pollutant emissions associated with the construction (mobile sources) of the proposed Project	Prior and during construction/ grading of the proposed Project	Once prior to construction and periodically during construction	Inclusion in specifications for the WAMA project; status updates in annual LAX MMRP progress report.
LAX-AQ-4 Monitoring Agency: **LAWA**	**LAX-AQ-4 – Operations-Related Control Measures** The principal feature of this measure is the conversion of LAX GSE to low and ultra-low emission technology (e.g., electric, fuel cell, and other future low-emission technologies). It should be noted that no estimate of the air quality benefit (i.e., emission reductions) of other secondary measures is made in this analysis. Specific operations-related control measures applicable to the Project are identified below:				
4a	LAX GSE will be converted to low- and ultra-low emission technology (e.g., electric, fuel cell, and other future low-emission technologies). Both LAWA- and tenant-owned equipment will be included in this conversion program, which will be implemented in phases. LAWA will assign a GSE coordinator whose responsibility it will be to ensure the successful conversion of GSE in a timely manner. This coordinator will have adequate authority to negotiate on behalf of the City and have sufficient technical support to evaluate technical issues that arise during the implementation of this measure.	Operations-related air pollutant emissions.	Work with assigned GSE coordinator regarding implementation	Ongoing	Inclusion of measure in construction contracts; Status updates in annual LAX MMRP progress report.
4d	LAWA will require the use of electric lawn mowers and leaf blowers, as these units become available for commercial use, for landscape maintenance associated with the proposed project.	General air pollutant emissions	Prior to completion of proposed Project	Once prior to completion of the proposed Project	Inclusion of measure in landscaping maintenance contracts; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
4e	LAWA will require the conversion of sweepers to alternative fuels or electric power for ongoing airfield and roadway maintenance. In the 2006 GSE inventory, two of ten sweepers were electric powered and one was either CNG or LPG fueled. HEPA filters will be installed on airport sweepers where the use of HEPA filters is technologically and financially feasible and does not pose a safety hazard to airport operations.	General air pollutant emissions	Work with assigned GSE coordinator regarding implementation	Ongoing	Status updates in annual LAX MMRP progress report.
4f	LAWA will ensure that there is available and sufficient infrastructure on-site, where not operationally or technically infeasible, to provide fuel to alternative-fueled vehicles to meet all requests for alternative fuels from contractors and other users of LAX. This will apply to construction equipment and to operations-related vehicles on-site. This provision will apply in conjunction with construction or modification of passenger gates related to implementation of the LAX Master Plan relative to the provision of appropriate infrastructure for electric GSE.	Air pollutant emissions related to operational vehicles	Work with assigned GSE coordinator regarding implementation	Ongoing	Status updates in annual LAX MMRP progress report.
Hazards and Hazardous Materials					
HM-1 **Monitoring Agency:** **LAWA**	**Ensure Continued Implementation of Existing Remediation Efforts.** Prior to initiating construction of a Master Plan component, LAWA will conduct a pre-construction evaluation to determine if the proposed construction will interfere with existing soil or groundwater remediation efforts. For sites currently on LAX property, LAWA will work with tenants to ensure that, to the extent possible, remediation is complete prior to the construction. If remediation must be interrupted to allow for Master Plan-related construction, LAWA will notify and obtain approval from the regulatory agency with jurisdiction, as required, and will evaluate whether new or increased monitoring will be necessary. If it is determined that contamination has migrated during construction,	Potential for construction activities to interfere with existing soil or groundwater remediation efforts	Prior to initiation of construction	Once prior to construction	Status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	temporary measures will be taken to stop the migration. As soon as practicable following completion of construction in the area, remediation will be reinstated, if required by the Regional Water Quality Control Board (RWQCB) or another agency with jurisdiction. In such cases, LAWA will coordinate the design of the Master Plan component and the re-design of the remediation systems to ensure that they are compatible and to ensure that the proposed remediation system is comparable to the system currently in place. If it is determined during the pre-construction evaluation that construction will preclude reinstatement of the remediation effort, LAWA will obtain approval to initiate construction from the agency with jurisdiction. For properties to be acquired as part of the LAX Master Plan, LAWA will evaluate the status of all existing soil and groundwater remediation efforts. As part of this evaluation, LAWA will assess the projected time required to complete the remediation activities and will coordinate with the land owner and the agency with jurisdiction to ensure that remediation is completed prior to scheduled demolition and construction activities, if possible. In cases where remediation cannot be completed prior to demolition and construction activities, LAWA will undertake the same steps required above, namely, an evaluation of the need to conduct monitoring; implementation of temporary measures to stop migration, if required; and reinstatement of remediation following completion of construction, if required.				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
HM-2. **Monitoring Agency:** **LAWA**	**Handling of Contaminated Materials Encountered During Construction.** Prior to the initiation of construction, LAWA will develop a program to coordinate all efforts associated with the handling of contaminated materials encountered during construction. The intent of this program will be to ensure that all contaminated soils and/or groundwater encountered during construction are handled in accordance with all applicable regulations. As part of this program, LAWA will identify the nature and extent of contamination in all areas where excavation, grading, and pile-driving activities are to be performed. LAWA will notify the appropriate regulatory agency when contamination has been identified. If warranted by the extent of the contamination, as determined by the regulatory agency with jurisdiction, LAWA will conduct remediation prior to initiation of construction. Otherwise, LAWA will incorporate provisions for the identification, segregation, handling and disposal of contaminated materials within the construction bid documents. In addition, LAWA will include a provision in all construction bid documents requiring all construction contractors to prepare site-specific Health and Safety Plans prior to the initiation of grading or excavation. Each Health and Safety Plan would include, at a minimum, identification/description of the following: site description and features; site map; site history; waste types encountered; waste characteristics; hazards of concern; disposal methods and practices; hazardous material summary; hazard evaluation; required protective equipment; decontamination procedures; emergency contacts; hospital map and contingency plan. In the event that any threshold of significance listed in the Hazardous Materials section of the EIS/EIR for the LAX Master Plan is exceeded due to the discovery of soil or groundwater contaminated by hazardous	Potential for encountering hazardous materials/waste during construction activities	Prior to initiation of construction	Once prior to construction	Compliance with the provisions contained in the *Procedure for the Management of Contaminated Materials Encountered During Construction*, including the preparation of a detailed Health and Safety Plan; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	materials or if previously unknown contaminants are discovered during construction or a spill occurs during construction, LAWA will notify the lead agency(ies) with jurisdiction and take immediate and effective measures to ensure the health and safety of the public and workers and to protect the environment, including, as necessary and appropriate, stopping work in the affected area until the appropriate agency has been notified. *Note: Subsequent to the approval of the LAX Master Plan, LAWA adopted the Procedure for the Management of Contaminated Materials Encountered During Construction for application to all LAX Master Plan projects. The Procedure, provides further guidance for implementing LAX Master Plan Commitment HM-2, especially for projects involving excavation and grading of soils.*				
Hydrology and Water Quality					
HWQ-1. **Monitoring Agency:** **LAWA**	**Conceptual Drainage Plan.** Once a Master Plan alternative is selected, and in conjunction with its design, LAWA will develop a Conceptual Drainage Plan (CDP) of the area within the boundaries of the Master Plan (in accordance with FAA guidelines and to the satisfaction of the City of Los Angeles Department of Public Works [LADPW], Bureau of Engineering). The purpose of the drainage plan will be to assess area-wide drainage flows as related to the Master Plan area, and at a level of detail sufficient to identify the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The CDP will provide the basis and specifications from which detailed drainage improvement plans will be designed in conjunction with site engineering specific to each Master Plan.	Significant changes in surface hydrology or adverse impacts to surface water quality due to new development associated with the Master Plan	Prior to issuance of a grading/building permit for a project involving substantial surface alterations or substantial changes to existing operations	Once upon completion of conceptual drainage plan	Completion of conceptual drainage plan.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	BMPs will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water resulting from the selected Master Plan alternative. To evaluate drainage capacity, LAWA will use either the Peak Rate Method specified in Part G - Storm Drain Design of the City of Los Angeles' Bureau of Engineering Manual or the Los Angeles County Modified Rational Method, both of which are acceptable to the LADPW and the City of Los Angeles Bureau of Engineering. In areas within the boundary of the selected alternative where the surface water runoff rates are found to exceed the capacity of the storm water conveyance infrastructure with the potential to cause flooding, LAWA will take measures to either reduce peak flow rates or increase the structure's capacity. These drainage facilities will be designed to ensure that they adequately convey storm water runoff and prevent flooding by adhering to the procedures set forth by the Peak Rate Method/Los Angeles County Modified Rational Method. Methods to reduce the peak flow could include: o Decreasing impervious area by removing unnecessary pavement or utilizing porous concrete or modular pavement o Building storm water detention structures o Diverting runoff to pervious areas (reducing directly-connected impervious areas) o Diverting runoff to outfalls with additional capacity o Redirecting storm water flows to increase the time of concentration o Measures to increase drainage capacity could				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	include: - Increasing the capacity of storm water conveyance structures - Increasing the number of storm water conveyance structures and/or outfalls To evaluate the effect of the selected Master Plan alternative on surface water quality, LAWA will prepare a specific Standard SUSMP for the selected alternative, as required by the LARWQCB. The SUSMP addresses water quality and drainage issues by specifying source control, structural, and treatment control BMPs with the objective of reducing the discharge of pollutants from the storm water conveyance system to the maximum extent practicable. Once BMPs are identified, an updated pollutant load estimate will be calculated that takes into account reductions from treatment control BMPs. These BMPs will be applied to both existing and future sources with the goal of achieving no net increase in loadings of pollutants of concern to receiving water bodies. LAWA will therefore address water quality issues, including erosion and sedimentation, and comply with the SUSMP requirements, by incorporation of the BMPs specified in the SUSMP, including: o Vegetated swales and strips o Oil/Water separators, clarifiers and Media filtration o Detention basins, and catch basin inserts and screens				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	o Continuous flow deflective systems o Bioretention and infiltration o Manufactured treatment units and hydrodynamic devices Other structural BMPs may also be selected from the literature and the many federal, state and local guidance documents available. Performance of structural BMPs varies considerably based on their design. USEPA has published estimated ranges of pollutant removal efficiencies for structural BMPs based on substantial document review. In addition to the structural BMP types that will be used, non-structural/source control BMPs will continue to be a part of the LAX program to reduce pollutant loadings. Existing practices and potentially new ones will be extended to acquisition areas and to the areas where airport operations will increase in frequency or duration. These source control BMPs will be incorporated into the SWPPP and will consequently be required of LAWA and all airport tenants at all locations where industrial activities occur that have the potential to impact water quality. The overall result of LAX Master Plan Commitment HWQ-1 will be drainage infrastructure that provides adequate drainage capacity to prevent flooding and control peak flow discharges, that incorporates BMPs to minimize the effect of airport operations on surface water quality, and that prevents a net increase of pollutant loads to receiving waters.				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
MM-HWQ-1. **Monitoring Agency:** **LAWA**	**Update Regional Drainage Facilities.** Regional drainage facilities should be upgraded, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development. This could include upgrading the existing outfalls, or building new ones. The responsibility for implementing this mitigation measure lies with the LACDPW and/or LADPW, Bureau of Engineering. A portion of the increased costs for the upgraded flood control and drainage facilities would be paid by LAX tenants and users in accordance with the possessory interest tax laws and other legal assessments, consistent with federal airport revenue diversion laws and regulations and in compliance with state, county and city laws. New facilities should be designed in accordance with the drainage design standards of each agency.	Impacts to storm drain infrastructure	Ongoing	Ongoing	Status updates in annual LAX MMRP progress report. Once the necessary improvements to the offsite facilities have been approved, the need for monitoring ceases.
Noise					
MM-N-7 **Monitoring Agency:** **LAWA**	**Construction Noise Control Plan.** A Construction Noise Control Plan will be prepared to provide feasible measures to reduce significant noise impacts throughout the construction period for all projects near noise sensitive uses. For example, noise control devices shall be used and maintained, such as equipment mufflers, enclosures, and barriers. Natural and artificial barriers such as ground elevation changes and existing buildings may be used to shield construction noise.	Significant noise impacts at noise-sensitive receivers during construction	Prior to the earliest of either the issuance of a grading permit, issuance of a demolition permit, or construction commencement of the Project with noise sensitive uses within 600 feet of Project site	Once, upon completion of Noise Control Plan and as specified in the Noise Control Plan	Inclusion of requirement of a Noise Control Plan in subcontract agreement and subsequent approval of the Noise Control Plan by LAWA; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
MM-N-8 **Monitoring Agency:** **LAWA**	**Construction Staging.** Construction operations shall be staged as far from noise-sensitive uses as feasible.	Significant noise impacts at noise-sensitive receivers during construction	Prior to the earliest of either the issuance of a grading permit, issuance of a demolition permit, or construction commencement of the Project with noise sensitive uses within 600 feet of Project site	Once, upon approval of construction staging area by LAWA	Approval of construction staging area by LAWA; status updates in annual LAX MMRP progress report.
MM-N-9 **Monitoring Agency:** **LAWA**	**Equipment Replacement.** Noisy equipment shall be replaced with quieter equipment (for example, rubber tired equipment rather than track equipment) when technically and economically feasible.	Significant noise impacts at noise-sensitive receivers during construction.	Prior to the earliest of either the issuance of a grading permit, issuance of a demolition permit, or construction commencement of the Project with noise sensitive uses within 600 feet of the Project site	Once, upon completion of Noise Control Plan and as specified in the Noise Control Plan	Inclusion of requirement of a Noise Control Plan in subcontract agreement and subsequent approval of the Noise Control Plan by LAWA; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
MM-N-10 **Monitoring Agency:** **LAWA**	**Construction Scheduling.** The timing and/or sequence of the noisiest on-site construction activities shall avoid sensitive times of the day, as feasible (9 p.m. to 7 a.m. Monday - Friday; 8 p.m. to 6 a.m. Saturday; anytime on Sunday or Holidays).	Significant noise impacts at noise-sensitive receivers during construction.	Prior to the earliest of either the issuance of a grading permit, issuance of a demolition permit, or construction commencement of the Project with noise sensitive uses within 600 feet of the Project site	Once, upon completion of Noise Control Plan and as specified in the Noise Control Plan	Inclusion of requirement of a Noise Control Plan in subcontract agreement and subsequent approval of the Noise Control Plan by LAWA; status updates in annual LAX MMRP progress report.
N-1 **Monitoring Agency:** **LAWA**	**Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program.** All components of the current airport noise abatement program that pertain to aircraft noise will be maintained**.**	Expose noise-sensitive areas to 65 CNEL or greater with at least a 1.5 CNEL increase	Already being implemented. Will continue noise abatement program throughout implementation and use	Ongoing	Submission of Annual Report per Variance Conditions to County of Los Angeles; status updates in annual LAX MMRP progress report.
ST-16 **Monitoring Agency:** **LAWA**	**Surface Transportation, Designated Haul Routes.** Every effort will be made to ensure that haul routes are located away from sensitive noise receptors.	Traffic noise	At issuance of approved haul route	Once, at approval of haul route	Approval of haul route by LAWA Ground Transportation/Construction Coordination Office; status updates in annual LAX MMRP progress report

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
ST-22 **Monitoring Agency:** **LAWA**	**Surface Transportation, Designated Truck Routes.** For dirt and aggregate and all other materials and equipment, truck deliveries will be on designated routes only (freeways and non-residential streets). Every effort will be made for routes to avoid residential frontages. The designated routes on City of Los Angeles streets are subject to approval by LADOT's Bureau of Traffic Management and may include, but will not necessarily be limited to: Pershing Drive (Westchester Parkway to Imperial Highway); Florence Avenue (Aviation Boulevard to I-405); Manchester Boulevard (Aviation Boulevard to I-405); Aviation Boulevard (Manchester Avenue to Imperial Highway); Westchester Parkway/Arbor Vitae Street (Pershing Drive to I-405); La Cienega Boulevard (north of Imperial Highway); Airport Boulevard (Arbor Vitae Street to Century Boulevard); Sepulveda Boulevard (Westchester Parkway to Imperial Highway); I-405; and I-105.	Traffic congestion and delay as they relate to construction activities	At issuance of haul route approval	Once, upon approval of each haul route	Approval of haul route by LAWA Ground Transportation/Construction Coordination Office; status updates in annual LAX MMRP progress report
Land Use					
LU-4 **Monitoring Agency:** **LAWA**	**Neighborhood Compatibility Program.** Ongoing coordination and planning will be undertaken by LAWA to ensure that the airport is as compatible as possible with surrounding properties and neighborhoods. Measures to enforce this policy will include: ○ Along the northerly and southerly boundary areas of the airport, LAWA will provide and maintain landscaped buffer areas that will include setbacks, landscaping, screening or other appropriate view sensitive uses with the goal of avoiding land use conflicts, shielding lighting, enhancing privacy and better screening views of airport facilities from adjacent residential uses. Use of existing facilities in buffer areas may continue as required until LAWA can	Conflict with any applicable land use plan, policy, or regulation (including, but not limited to, the general plan, specific plans, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect	Ongoing	Ongoing	Compliance with the provisions of the LAX Zone/LAX Specific Plan and LAX Plan; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	develop alternative facilities. ○ Locate airport uses and activities with the potential to adversely affect nearby residential land uses through noise, light spill-over, odor, vibration and other consequences of airport operations and development as far from adjacent residential neighborhoods as feasible. ○ Provide community outreach efforts to property owners and occupants when new development on airport property is in proximity to and could potentially affect nearby residential uses.				
Construction Surface Transportation					
C-1. **Monitoring Agency:** **LAWA**	**Establishment of a Ground Transportation/Construction Coordination Office.** Establish this office for the life of the construction projects to coordinate deliveries, monitor traffic conditions, advise motorists and those making deliveries about detours and congested areas, and monitor and enforce delivery times and routes. LAWA would periodically analyze traffic conditions on designated routes during construction to see whether there is a need to improve conditions through signage and other means. This office may undertake a variety of duties, including but not limited to: ○ Inform motorists about detours and congestion by use of static signs, changeable message signs, media announcements, airport website, etc.; ○ Work with airport police and the Los Angeles Police Department to enforce delivery times and routes;	Traffic congestion and delays as they relate to construction activities	Prior to issuance of any permits. Complete set of duties for this office will be established prior to issuance of any permit for the project that may significantly impact surface streets	Ongoing coordination by the LAWA Ground Transportation/Construction Coordination Office in conjunction with LAWA Construction and Logistics Management (CALM) team	LAWA Ground Transportation/Construction Coordination Office prior to approval; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	○ Establish staging areas; ○ Coordinate with police and fire personnel regarding maintenance of emergency access and response times; ○ Coordinate roadway projects of Caltrans, City of Los Angeles, and other jurisdictions with those of the Airport construction projects; ○ Monitor and coordinate deliveries; ○ Establish detour routes; ○ Work with residential and commercial neighbors to address their concerns regarding construction activity; and ○ Analyze traffic conditions to determine the need for additional traffic controls, lane restriping, signal modifications, etc. *Note: Subsequent to the approval of the LAX Master Plan, LAWA established a "Ground Transportation/Construction Coordination Office" in the form of the CALM team. The CALM team coordinates and monitors construction traffic, coordinates with agencies as necessary, and reviews traffic control plans to address any concerns prior to approval. The CALM team, discussed in detail in Section 4.7.3.8, above, provides implementation of the LAX Master Plan Commitment C-1.*				
C-2. **Monitoring Agency:** **LAWA**	**Construction Personnel Airport Orientation.** All construction personnel will be required to attend an airport project-specific orientation (pre-construction meeting) that includes where to park, where staging areas are located, construction policies, etc.	Traffic congestion and delays as they relate to construction activities	Prior to commencement of construction	As required by arrival of new personnel	Contractor certification; signatures of orientation attendees; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
ST-9. **Monitoring Agency:** **LAWA**	**Construction Deliveries.** Construction deliveries requiring lane closures shall receive prior approval from the Construction Coordination Office. Notification of deliveries shall be made with sufficient time to allow for any modifications to approved traffic detour plans.	Traffic congestion and delay as they relate to construction activities	During construction	Ongoing during construction	Status updates in annual LAX MMRP progress report.
ST-12 **Monitoring Agency:** **LAWA**	**Designated Truck Delivery Hours.** Truck deliveries shall be encouraged to use night-time hours and shall avoid the peak periods of 7:00 AM to 9:00 AM and 4:30 PM to 6:30 PM.	Traffic congestion and delay as they relate to construction activities	LAWA approval of delivery schedule as part of the Construction Traffic Management Plan	Ongoing during construction	Status updates in annual LAX MMRP progress report.
ST-14 **Monitoring Agency:** **LAWA**	**Construction Employee Shift Hours.** Shift hours that do not coincide with the heaviest commuter traffic periods (7:00 AM to 9:00 AM, 4:30 PM to 6:30 PM) would be established. Work periods will be extended to include weekends and multiple work shifts, to the extent possible and necessary.	Traffic congestion and delay as they relate to construction activities	Prior to construction activities	Once, during review of Construction Traffic Management Plan	LAWA approval of employee work schedule as part of the Construction Traffic Management Plan; status updates in annual LAX MMRP progress report.
ST-16 **Monitoring Agency:** **LAWA**	See discussion of ST-16 under Noise.				
ST-17 **Monitoring Agency:** **LAWA**	**Maintenance of Haul Routes.** Haul routes on off-airport roadways will be maintained periodically and will comply with City of Los Angeles or other appropriate jurisdictional requirements for maintenance. Minor striping, lane configurations, and signal phasing modifications would be provided as needed.	Roadway safety	Ongoing during construction	Ongoing during construction	Field inspection report; maintenance logs; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
ST-18 **Monitoring Agency:** **LAWA**	**Construction Traffic Management Plan.** A complete construction traffic plan will be developed to designate detour and/or haul routes, variable message and other sign locations, communication methods with airport passengers, construction deliveries, construction employee shift hours, construction employee parking locations and other relevant factors.	Traffic congestion, delay and safety related to construction activities	Prior to commencement of construction	Ongoing during construction,	LAWA approval of Construction Traffic Management Plan by LAWA Ground Transportation/Construction Coordination Office in conjunction with LAWA CALM Team; status updates in annual LAX MMRP progress report.
ST-22 **Monitoring Agency:** **LAWA**	See discussion of ST-22 under Noise.				
Miscellaneous Applicable Mitigation Measures					
ARCHAEO-1 **Monitoring Agency:** **LAWA**	Prior to initiation and construction activities, LAWA will retain an on-site Cultural Resources Monitor (CRM), as defined in the LAX Master Plan Mitigation Monitoring and Reporting Program (MMRP) Archaeological Treatment Plan (ATP), who will determine if the project site is subject to archaeological monitoring. As defined in the ATP, areas are not subject to archaeological monitoring if they contain redeposited fill or have previously been disturbed. LAWA shall retain an archaeologist to monitor excavation activities in native or virgin soils in accordance with the detailed monitoring procedures and other procedures outlined in the ATP regarding treatment for archaeological resources that are accidentally encountered during construction. In accordance with the methods and guidelines provided in the ATP, the CRM will compare the known depth of	Potential to unexpectedly encounter and impact subsurface archaeological resources, including Native American remains, during grading and excavation	Prior to issuance of grading or demolition permit of the proposed Project, with continued monitoring efforts in accordance with the ATP	Once, upon retention of archaeologist and ongoing during excavation and grading activities, as identified in ATP	Retention of archaeologist and filing of periodic monitoring reports with LAWA, as stipulated in the ATP; status updates in annual LAX MMRP progress report.

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	redeposited fill or disturbance to the depth of planned grading activities, based on a review of construction plans. If the CRM determines that the Project site is subject to archaeological monitoring, a qualified archaeologist (an archaeologist who satisfies the Secretary of the Interior's Professional Qualifications Standards [36 CFR 61]) shall be retained by LAWA to inspect excavation and grading activities that occur within native material. The extent and frequency of inspection shall be defined based on consultation with the archaeologist. Following initial inspection of excavation materials, the archaeologist may adjust inspection protocols as work proceeds. Identification, evaluation, and recovery of cultural resources shall be conducted in accordance with the methods, guidelines, and measures established in the ATP. If Native American cultural resources are encountered, LAWA shall comply with guidance established in the ATP for retaining a Native American monitor. If human remains are found, LAWA shall comply with the State Health and Safety Code regarding the appropriate treatment of those remains as outlined in the ATP. Reporting shall be completed in conformance with the requirements established in the ATP to document the archaeological monitoring effort and guidance as to the proper curation and archiving of artifacts in accordance with industry and federal standards.				

Applicable LAX Master Plan Commitments and Mitigation Measures

Master Plan Commitments/ Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
PALEO-1 **Monitoring Agency:** **LAWA**	Conformance with LAX Master Plan Paleontological Management Treatment Plan: (PMTP): Prior to the initiation of grading and construction activities, LAWA will retain a professional paleontologist, as defined in the Final LAX Master Plan MMRP PMTP, who will determine if the Project site exhibits a high or low potential for subsurface resources. If the Project site is determined to exhibit a high potential for subsurface resources, paleontological monitoring will be conducted in accordance with the procedures stipulated in the PMTP. If the Project site is determined to exhibit a low potential for subsurface deposits, excavation need not be monitored as per the PMTP. In the event that paleontological resources are discovered, the procedures outlined in the PMTP for the identification of resources will be followed to ensure that unique paleontological resources are studied and treated in accordance with applicable regulations and procedures such that significant impacts are avoided.	Potential loss or destruction of important paleontological resources	Prior to issuance of grading or demolition permits for the proposed project, with continued monitoring efforts in accordance with the PMTP	Once, upon retention of paleontologist and ongoing during excavation and grading activities, as identified in PMTP	Retention of paleontologist and filing of periodic monitoring reports with LAWA, as stipulated in the PMTP; status updates in annual LAX MMRP progress report.
PALEO 2 **Monitoring Agency:** **LAWA**	Construction Personnel Briefing: In accordance with the PMTP, construction personnel will be briefed by the consulting paleontologist in the identification of fossils or fossilferous deposits and in the correct procedures for notifying the relevant individuals should such a discovery occur.	Potential loss or destruction of important paleontological resources	Prior to commencement of grading or excavation for the proposed Project, with continued monitoring efforts in accordance with the PMTP	Once for each worker involved with excavation and grading activities	Sign-in sheets for workers attending the construction briefing; status updates in annual LAX MMRP progress report.

This page left intentionally blank