# Bradley West Project
# Mitigation Monitoring and Reporting Program

**September 2009**

This document constitutes the Mitigation Monitoring and Reporting Program (MMRP) for the Bradley West Project developed under the Los Angeles International Airport (LAX) Master Plan. This MMRP specifies the monitoring and reporting requirements for the Bradley West Project (as modified by Alternative 4, described in the Final Environmental Impact Report (EIR)), as related to implementation of applicable LAX Master Plan commitments and mitigation measures identified in the Bradley West Project Final EIR. Such commitments and measures include many of those set forth in the LAX Master Plan Final EIR, which is a program EIR that addresses the overall Master Plan, as well as additional new measures identified in the EIR analysis specific to the Bradley West Project.

The following table provides, by environmental discipline, the number and title of each applicable Master Plan commitment, Master Plan mitigation measure, and Bradley West Project-specific mitigation measure, the full text of the subject Master Plan commitment or mitigation measure or Bradley West Project-specific mitigation measure, the impact being addressed, and the timing of implementation, monitoring frequency, and actions indicating compliance.

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
|---|---|---|---|---|---|
| **Noise** | | | | | |
| **MM-N-7**<br>**Monitoring Agency:**<br>**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 each project with noise sensitive uses within 600 feet of project site | Once, upon completion of Noise Control Plan for each project and as specified in the Noise Control Plan | Inclusion of requirement for a Noise Control Plan in subcontract agreement & subsequent approval of the noise control plan by LAWA |
| **MM-N-8**<br>**Monitoring Agency:**<br>**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 each 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 |

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| **MM-N-9**<br>**Monitoring Agency:**<br>**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 each project with noise sensitive uses within 600 feet of the project site | Once, upon completion of Noise Control Plan for each project and as specified in the Noise Control Plan | Inclusion of requirement for a Noise Control Plan in subcontract agreement and subsequent approval of the Noise Control Plan by LAWA |
| **MM-N-10**<br>**Monitoring Agency:**<br>**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 earlier of either the issuance of a grading permit, issuance of a demolition permit, or construction commencement of each project with noise sensitive uses within 600 feet of project site | Once, upon completion of Noise Control Plan for each project and as specified in the Noise Control Plan | Inclusion of requirement for a Noise Control Plan in subcontract agreement and subsequent approval of the Noise Control Plan by LAWA |

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| **Land Use** | | | | | |
| **LU-4**<br>**Monitoring Agency:**<br>**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:<br>◆ 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 develop alternative facilities.<br>◆ 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.<br>◆ 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. | Land use incompatibility with nearby residential uses | Throughout Master Plan development | On-going throughout Master Plan development | Completion of LAX Plan Compliance Review, as set forth in Section 7 of the LAX Specific Plan, on a project-by-project basis |

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| **Surface Transportation (Off-Airport)** | | | | | |
| **ST-9**<br>**Monitoring Agency:**<br>**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 delays as they relate to the LAX Master Plan program construction activities | During construction | On-going during construction | Periodic reporting by Construction Coordination Office |
| **ST-12**<br>**Monitoring Agency:**<br>**LAWA** | **Designated Truck Delivery Hours.** Truck deliveries shall be encouraged to use night-time hours and shall avoid the peak periods of 7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m. | Traffic congestion and delays as they relate to the LAX Master Plan program construction activities | LAWA approval of delivery schedule as part of the Construction Traffic Management Plan | On-going during construction | Periodic reporting by Construction Coordination Office |
| **ST-14**<br>**Monitoring Agency:**<br>**LAWA** | **Construction Employee Shift Hours.** Shift hours that do not coincide with the heaviest commuter traffic periods (7:00 a.m. to 9:00 a.m., 4:30 p.m. to 6:30 p.m.) will be established. Work periods will be extended to include weekends and multiple work shifts, to the extent possible and necessary. | Traffic congestion and delays as they relate to the LAX Master Plan program construction activities | Prior to construction activity for each Master Plan project | Once, upon approval of employees' work schedule on a project-by-project basis | LAWA approval of employee work schedule as part of the Construction Traffic Management Plan |
| **ST-16**<br>**Monitoring Agency:**<br>**LAWA** | **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 each haul route | Approval of haul route by LADBS |
| **ST-17**<br>**Monitoring Agency:**<br>**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 will be provided as needed. | Roadway safety | As dictated by LAWA's Construction Coordination Office and LADBS | On-going during construction | Field inspection report; maintenance logs |

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| **ST-18**<br>**Monitoring Agency:**<br>**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, as they relate to the LAX Master Plan program construction activities | Prior to commencement of construction | On-going during construction, as stipulated by LAWA's Construction Coordination Office | LAWA approval of Construction Traffic Management Plan by LAWA's Construction Coordination Office |
| **ST-22**<br>**Monitoring Agency:**<br>**LAWA** | **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); Century Boulevard (Sepulveda Boulevard to I-405); Imperial Highway (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 the LAX Master Plan program construction activities | At issuance of haul route approval | Once, upon approval of each haul route | Approval of haul route by LADBS |

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| **Environmental Justice** | | | | | |
| **EJ-1**<br>**Monitoring Agency:**<br>**LAWA** | **Aviation Curriculum.** LAWA will work with local school districts to offer aviation-related curriculum at elementary schools, middle schools, high schools and colleges in affected communities near the Los Angeles International Airport. Potential pilot schools could include: Beulah Payne Elementary School, Lennox Middle School, Hillcrest Continuation School, Inglewood High School, Morningside High School, and Los Angeles Southwest College. | Disproportionately high and adverse effects on minority and/or low-income communities, particularly those that would remain significant after implementation of mitigation measures. Would also help ensure that such communities have access to benefits flowing from the LAX Master Plan | Throughout Master Plan development | Annually | Implementation of proposed aviation curriculum |
| **EJ-2**<br>**Monitoring Agency:**<br>**LAWA** | **Aviation Academy.** LAWA will work with local school districts to provide comprehensive educational and trade training for aviation-related careers, targeting students in the affected communities to provide them with increased career opportunities. | Disproportionately high and adverse effects on minority and/or low-income communities, particularly those that would remain significant after implementation of mitigation measures. Would also help ensure that such communities have access to benefits flowing from the LAX Master Plan | Throughout Master Plan development | Annually | Implementation of proposed aviation academy |

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| **EJ-3**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Job Outreach Center.**<br>**Construction and Other LAX-Related Job Outreach -**LAWA will create or utilize an existing resource center to assist historically underrepresented and at-risk local residents to find construction and other substantive jobs with LAWA and surrounding airport-related businesses through training and comprehensive outreach. Written materials regarding job training and placements should be compiled and disseminated from the existing LAWA Job Outreach Center.<br>The Job Outreach Center will accomplish the following:<br>◆ Fund outreach efforts;<br>◆ Encourage minority firms within the affected communities to participate in each phase of the plan, including the design phase;<br>◆ Coordinate with local organizations (including, among others, The Urban League, National Association for the Advancement of Colored People (NAACP), Southern Christian Leadership Conference (SCLC), Watts Labor Community Action Committee (WLCAC), Brotherhood Crusade, First African Methodist Episcopal (FAME) Renaissance, Concerned Citizens of South Central Los Angeles (CCSCLA), Black Business Association (BBA), Greater Los Angeles African American Chamber of Commerce (GLAAACC), and LA X Coalition for Economic, Environmental and Educational Justice) regarding job training, outreach and incubator programs to ensure expansive outreach;<br>◆ Establish specific outreach and/or training programs for special targeted populations such as | Disproportionately high and adverse effects on minority and/or low-income communities, particularly those that would remain significant after implementation of mitigation measures. Would also help ensure that such communities have access to benefits flowing from the LAX Master Plan | Throughout Master Plan development | Annually | Implementation of proposed Job Outreach Center |

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| | local ex-offenders, welfare recipients, homeless person, and low-income area residents;<br>◆ Hold workshops and training classes for professional development across disciplines that may provide service to LAX pre-and post-employment;<br>◆ Establish educational/training/internship programs for local students;<br>◆ Provide referrals and linkages to manufacturing (assembly line) job opportunities in impacted communities, especially South Los Angeles, that produce materials and/or devices used by the airport. This would help to revitalize the community through the provision of long-term work for existing industrial businesses.<br>**Community Job Database** - LAWA will coordinate data gathering, outreach and counseling through the following:<br>◆ Research and assess existing specialties and current capabilities of local work force to assist with targeted training and outreach efforts;<br>◆ Develop and manage a complete database of minority contractors;<br>◆ Produce a database of potential jobs and specialties needed, per Master Plan phase, and disseminate the information throughout the communities and to local Minority Business Enterprises/Disadvantaged Business Enterprises (MBE/DBE) companies.<br>**MBE/DBE Business Outreach** - LAWA will implement proactive measures that further State and local initiatives to ensure meaningful contract participation of MBE/DBE firms as follows: | | | | |

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| | ◆ Research and assess existing specialties and capabilities of local MBE/DBE firms to assist with targeted training and outreach efforts;<br>◆ Good Faith Effort (GFE) Outreach Training - to assist prime contractors with their outreach to local and MBE/DBE firms by providing them use of relevant databases and referring them to other local organizations that may be able to assist them in their efforts;<br>◆ Encourage use of MBE/DBE local subcontractors;<br>◆ LAWA shall adopt policies to promote the use of MBE/WBE/DBE subcontractors by requiring Prime Contractors to document outreach to MBE/WBE/DBEs; dividing projects into smaller component parts, or tasks to permit maximum participation by smaller entities; placing qualified MBE/WBE/DBEs on solicitation lists available to Prime Contractors; and advertising the availability of services of the Small Business Administration and Minority Business Development Agency of the Department of Commerce to Prime Contractors;<br>◆ Monitor and implement specific GFE guidelines for outreach to MBE/DBE firms.<br>**Small Business Outreach** - LAWA will establish the below-listed proactive measures to ensure meaningful contract participation of small businesses. The resources obtained through small business outreach will be compiled in a user-friendly brochure or report and disseminated from the existing LAWA Job Outreach Center. Contacts and loan conditions will be included where available. Counselors will be available to provide one-on-one assistance.<br>◆ Fund and institute sub-contractor | | | | |

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| | training/apprentice programs to be instituted pre-construction and during construction;<br>◆ Establish sensitivity training - educate prime contractors of the concerns and needs of the local business owners and MBE/DBE contractors;<br>◆ Develop special work packages to provide small businesses prime contracting opportunities;<br>◆ Establish loan assistance information programs that would provide counseling to small businesses in need of loans and, through potential partnerships with local banks, facilitate relationships with lenders;<br>◆ Establish incentives to large businesses for mentorship of, or partnering with local small businesses;<br>◆ Provide bonding assistance;<br>◆ Provide licensing assistance;<br>◆ Ensure prime and subcontracting opportunities for local small businesses. | | | | |
| **EJ-4**<br>**Monitoring Agency:**<br>**LAWA** | **Community Mitigation Monitoring.** LAWA will include community participation in monitoring the implementation of the final Mitigation Measures and Master Plan Commitments in order to ensure agency compliance and accountability. The community participation will include a diverse group of residents, stakeholders, environmental specialists and community leaders that will convene on a regular basis. | Disproportionately high and adverse effects on minority and/or low-income communities, particularly those that would remain significant after implementation of mitigation measures. Would also help ensure that such communities have access to benefits flowing from the LAX Master Plan | Throughout Master Plan development | Annually | Inclusion of community participation as a component of the Mitigation Monitoring and Reporting Program |

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| **Air Quality** | | | | | |
| **MM-AQ-1**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **LAX Master Plan - Mitigation Plan for Air Quality.** LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan Mitigation Plan for Air Quality (LAX MP-MPAQ). The LAX MP-MPAQ shall be developed in consultation with the FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), as appropriate, and shall include all feasible methods to reduce air pollutant emissions from aircraft, Ground Support Equipment (GSE), traffic, and construction equipment both on and off the airport. The goal of the LAX MP-MPAQ shall be to reduce potential air pollutant emissions associated with implementation of the LAX Master Plan to levels equal to, or less than, the thresholds of significance identified in the Final EIS/EIR for the project. At a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those identified in Table AD5-8, Total Operational and Construction Emission - Mitigated. The LAX MP-MPAQ shall include feasible mitigation measures that are grouped into the following three (3) categories:<br><br>1. Construction-Related Measure;<br>2. Transportation-Related Measure; and<br>3. Operations-Related Measure.<br><br>The LAX MP-MPAQ will, initially, present the basic framework of the overall air quality mitigation program | Overall air pollutant emissions associated with construction and operation of the LAX Master Plan | Basic LAX MP-MPAQ and the Construction-Related component to be completed prior to issuance of grading or demolition permit for first Master Plan project. The Transportation-Related component and the Operations-Related component to be completed in conjunction with implementation of the Master Plan components that materially affect surface transportation emissions and operations emissions | Twice: Once, upon confirmation of the basic LAX MP-MPAQ (i.e., basic framework of Plan), and once upon confirmation of the full LAX MP-MPAQ, when all three implementation plans (one for each category of air quality mitigation measures) are complete | Annual progress reports, summarizing the nature and effectiveness of air quality mitigation measures that were implemented during the year, will be prepared |

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| | | | | | |
| | (basic LAX MP-MPAQ), and will, ultimately, define the specific measures to be implemented within the context of three (3) individual components specific to the categories of emissions indicated above (full LAX MP-MPAQ). Implementation of Mitigation Measure MM-AQ-2, Construction-Related Mitigation Measure, will define the specific measures to be included in the construction-related component; Mitigation Measure MM-AQ-3, Transportation-Related Mitigation Measure, will define the specific measures to be included in the surface transportation-related component; and Mitigation Measure MM-AQ-4, Operations-Related Mitigation Measure, will define the specific measures to be included in the operations-related component. The basic framework of the LAX MP-MPAQ and the Construction-Related component will be developed prior to initiation of construction activities for the first project to be developed under the LAX Master Plan, and the development of the other two components will occur in conjunction with implementation of the Master Plan components that materially affect surface transportation emissions and operations emissions. | | | | |

**Table AD5-8**

**Total Operational and Construction Emissions - Mitigated (tons per year)**

| | Interim Year | | | | | Horizon Year 2015 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Pollutant and Source** | **NA/NP[1, 2]** | **A** | **B** | **C** | **D** | **NA/NP[1]** | **A** | **B** | **C** | **D** |
| VOC - On-Airport | 1,652 | 1,385 | 1,330 | 1,384 | 1,513 | 1,513 | 1,497 | 1.578 | 1,534 | 1,473 |
| VOC - Off-Airport | 2,795 | 2,286 | 2,261 | 2,163 | 1,365 | 1,606 | 1,282 | 1,271 | 1,270 | 1,091 |
| VOC - Construction | 909 | 170 | 148 | 155 | 86 | - | 44 | 39 | 40 | - |
| VOC - Total | 5,356 | 3,841 | 3,739 | 3,702 | 2,964 | 3,119 | 2,823 | 2,888 | 2,844 | 2,564 |
| CO - On-Airport | 11,842 | 9,555 | 9,459 | 9,578 | 9,077 | 9,451 | 9,053 | 9,553 | 9,412 | 8,266 |
| CO - Off-Airport | 31,114 | 29,405 | 29,385 | 28,691 | 16,719 | 15,188 | 16,368 | 16,227 | 16,336 | 13,166 |
| CO - Construction | 667 | 1,094 | 955 | 995 | 556 | - | 352 | 307 | 320 | - |
| CO - Total | 43,623 | 40,054 | 39,799 | 39,264 | 26,352 | 24,639 | 25,773 | 26,087 | 26,068 | 21,432 |
| $NO_X$- On-Airport | 6,356 | 5,504 | 5,503 | 5,543 | 5,760 | 5,729 | 6,357 | 6,440 | 5,999 | 5,474 |
| $NO_X$- Off-Airport | 4,665 | 4,420 | 4,514 | 4,463 | 2,628 | 2,368 | 2,723 | 2,718 | 2,741 | 2,102 |
| $NO_X$- Construction | 405 | 2,237 | 1,952 | 2,034 | 1141 | - | 494 | 431 | 449 | - |
| $NO_X$- Total | 11,426 | 12,161 | 11,969 | 12,040 | 9,529 | 8,097 | 9,574 | 9,589 | 9,189 | 7,576 |
| $SO_2$ - On-Airport | 405 | 382 | 382 | 382 | 436 | 449 | 494 | 513 | 489 | 436 |
| $SO_2$ - Off-Airport | 52 | 50 | 51 | 50 | 24 | 27 | 30 | 30 | 30 | 24 |
| $SO_2$ - Construction | 3 | 7 | 7 | 7 | 3 | - | 2 | 2 | 2 | - |
| $SO_2$ - Total | 460 | 439 | 440 | 439 | 463 | 476 | 526 | 545 | 521 | 460 |
| $PM_{10}$ - On-Airport | 181 | 128 | 126 | 132 | 182 | 167 | 165 | 168 | 158 | 177 |
| $PM_{10}$ - Off-Airport | 1,617 | 1,833 | 1,603 | 1,572 | 1,752 | 1,780 | 2,089 | 2,078 | 2,060 | 1,658 |
| $PM_{10}$ - Construction | 68 | 531 | 463 | 482 | 335 | - | 137 | 119 | 124 | - |
| $PM_{10}$ - Total | 1,866 | 2,492 | 2,192 | 2,186 | 2,269 | 1,947 | 2,391 | 2,365 | 2,342 | 1,835 |

1 NA/NP=No Action/No Project Alternative.

2 As described in the introduction to Chapter 4, the evaluation of mitigation measures is not a part of the No Action/No Project Alternative analysis. Emissions provided in this table for the No Action/No Project Alternative are the same as those reported in **Table F4.6-11a** and have been included here for comparative purposes.

3 Interim year is 2005 for NA/NP and Alternatives A, B, and C and 2013 for Alternative D.

Source: Camp Dresser & McKee Inc., 2004.

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| **MM-AQ-2**<br>**Monitoring Agency:**<br>**LAWA** | **Construction-Related Measure.** The required components of the construction-related air quality mitigation measure are itemized below. These components include numerous specific actions to reduce emissions of fugitive dust and of exhaust emissions from on-road and nonroad mobile sources and stationary engines. All of these components must be in place prior to commencement of the first Master Plan construction project and must remain in place through build out of the Master Plan. An implementation plan will be developed which provides available details as to how each of the elements of this construction-related mitigation measure will be implemented and monitored. Each construction subcontractor will be responsible to implement all measures that apply to the equipment and activities under his/her control, an obligation which will be formalized in the contractual documents, with financial penalties for noncompliance. LAWA will assign one or more environmental coordinators whose responsibility it will be to ensure compliance with the construction-related measure by use of direct inspections, records reviews, and investigation of complaints with reporting to LAWA management for follow-up action. The estimated ranges of emissions reductions quantified for this mitigation measure for Alternative D are shown in Table F5-8, Estimated Ranges of Emission Reductions for Construction-Related Air Quality Mitigation Measures. Reliable emissions reductions were not able to be quantified for all of these | Construction-related air pollutant emissions | Prior to issuance of grading or demolition permit for first Master Plan project | Once, upon completion of implementation plan for construction-related measures, and as specified in the implementation plan | Completion of implementation plan |

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| | components.<br><br>**Table F5-8**<br><br>**Estimated Ranges of Emissions Reductions for Construction-Related Air Quality Mitigation Measures**<br><br>**Pollutant** / **Alternatives A, B, C, and D[1] (tons)**<br>ROG: 1 - 10<br>$NO_X$: 300 - 1,100<br>CO: 10 - 30<br>$PM_{10}$: 140 - 400<br>$SO_X$: 1 - 10<br><br>[1] In the year of peak construction emissions.<br><br>Source: Camp Dresser & McKee Inc., 2004.<br><br>The specific components of this construction-related air quality mitigation measure include:<br><br>1. Fugitive Dust Source Controls:<br><br>◆ Apply non-toxic soil stabilizer to all inactive construction areas (i.e., areas with disturbed soil).<br>◆ Following the addition of materials to, or removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing non-toxic soil | | | | |

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| | stabilizer.<br>◆ 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.<br>◆ Prior to final occupancy, the applicant demonstrates that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.<br>◆ All roadways, driveways, sidewalks, etc. being installed as part of project should be completed as soon as possible; in addition, building pads should be laid as soon as possible after grading.<br>◆ Pave all construction access roads at least 100 feet on to the site from the main road.<br>2. <u>On-Road Mobile Source Controls:</u><br>◆ To the extent feasible, have construction employees work/commute during off-peak hours.<br>◆ Make available on-site lunch trucks during construction to minimize off-site worker vehicle trips.<br>3. <u>Nonroad Mobile Source Controls:</u><br>◆ Prohibit staging or parking of construction vehicles (including workers' vehicles) on streets adjacent to sensitive receptors such as schools, daycare centers, and hospitals.<br>◆ Prohibit construction vehicle idling in excess of ten minutes.<br>◆ Utilize on-site rock crushing facility, when feasible, during construction to reuse rock / | | | | |

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| | concrete and minimize off-site truck haul trips.<br>4. Stationary Point Source Controls:<br>◆ Specify combination of electricity from power poles and portable diesel- or gasoline-fueled generators using "cleaner burning diesel" fuel and exhaust emission controls.<br>5. Mobile and Stationary Source Controls:<br>◆ Specify combination of construction equipment using "cleaner burning diesel" fuel and exhaust emission controls.<br>◆ Suspend use of all construction equipment during a second-stage smog alert in the immediate vicinity of LAX.<br>◆ Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for intended job).<br>◆ Require that all construction equipment working on site is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules.<br>◆ Prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices.<br>6. Administrative Controls<br>◆ 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, records reviews, and investigations of complaints. | | | | |

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| **MM-AQ-3**<br>**Monitoring Agency:**<br>**LAWA** | **Transportation-Related Measure.** The primary feature of the transportation-related air quality mitigation measure is the development and construction of at least eight (8) additional sites with FlyAway service similar to the service provided by the Van Nuys FlyAway currently operated by LAWA. The intent of these FlyAway sites is to reduce the quantity of traffic going to and from LAX by providing regional locations where LAX employees and passengers can pick up an LAX-dedicated, clean-fueled bus that will transport them from a FlyAway closer to their home or office into LAX and back. The reduction in vehicle miles traveled (VMT) translates directly into reduced air emissions, as well as a reduction in traffic congestion in the vicinity of the airport. An implementation plan will be developed which provides available details as to how each of the elements of this transportation-related mitigation measure will be implemented and monitored. The estimated emissions reductions associated with this component of the transportation-related air quality mitigation measure are shown in Table F5-9. | Surface Transportation-related air pollutant emissions | Prior to issuance of building permit for ITC and within 6 months following City Council approval of the LAX Plan | Once, upon completion, of implementation plan for transportation-related measures and as specified in the implementation plan | Completion of implementation plan for transportation-related measures within the LAX MP-MPAQ |

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| **Table F5-9**<br><br>**Estimated Emissions Reductions (Tons) for Eight (8) New FlyAway Terminals - 2015**<br><br>**Pollutant[1]** — **Alternative D**<br>ROG — 56.0<br>NOX — 82.9<br>CO — 1064.5<br>PM10 — 152.6<br>SOX — 1.7<br><br>Note: Reductions are the combined totals from all new FlyAway capacity, and may include expansion of the existing FlyAway.<br><br>[1] Based on EMFAC2002 Emission Factors for Calendar Year 2015.<br><br>Source: Camp Dresser & McKee Inc., 2004.<br><br>The required two (2) elements of this transportation-related air quality mitigation measure include:<br><br>1. Development of New FlyAway Capacity:<br><br>Additional service capacity from at least eight (8) FlyAway service terminals are required under this measure, and all eight must be operational by 2015. LAWA has already begun analyzing potential FlyAway locations. Selection of the eight general locations | | | | |

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| | should be made and included in the overarching air quality mitigation program plan discussed in Mitigation Measure MM-AQ-1, LAX Master Plan Mitigation Plan for Air Quality, as well as in the implementation plan for the transportation-related measures noted above. Final selection of the sites must be completed on a schedule that allows for property acquisition or leasing, terminal design, construction, and implementation of all sites by 2015.<br><br>The sites may include, but are not limited to the following:<br><br>◆ West San Fernando Valley/Eastern Ventura County<br>◆ Santa Monica/Pacific Palisades<br>◆ Central Los Angeles<br>◆ Long Beach/South Bay/San Pedro<br>◆ East San Fernando Valley<br>◆ San Gabriel Valley<br>◆ Southeast Los Angeles County<br>◆ North Los Angeles County<br><br>2. <u>Public Outreach Program for FlyAway Service:</u><br><br>This measure also requires a public outreach program to inform potential users of the terminals about their existence and their locations. The outreach program would be geared towards encouraging the use of the FlyAways with convenience and low cost being the primary selling points.<br><br>Other feasible mitigation elements may be developed to ensure that the emission reductions for this | | | | |

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| | transportation-related measure are achieved. These may include, for example:<br>◆ Transit Ridership measures such as:<br>− Constructing on-site or off-site bus turnouts, passenger benches, or shelters to encourage transit system use.<br>− Constructing on-site or off-site pedestrian improvements/including showers for pedestrian employees to encourage walking/bicycling to work by LAX employees.<br>◆ Highway and Roadway Improvements measures such as:<br>− Linking ITS (Intelligent Transportation System) with off-airport parking facilities with ability to divert/direct trips to these facilities to reduce traffic/parking congestion and associated air emissions in the immediate vicinity of the airport.<br>− Expanding ITS/ATCS systems, concentrating on I-405 and I-105 corridors, extending into South Bay and Westside surface street corridors to reduce traffic/parking congestion and associated air emissions in the immediate vicinity of the airport.<br>− Linking LAX traffic management system with airport cargo facilities, with ability to reroute cargo trips to/from these facilities to reduce traffic/parking congestion and associate air | | | | |

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| | emissions in the immediate vicinity of the airport.<br>− Developing a program to minimize the use of conventional-fueled fleet vehicles during smog alerts to reduce air emissions from vehicles at the airport.<br>◆ <u>Parking measures such as:</u><br>− Providing free parking and preferential parking locations for ULEV/SULEV/ZEV in all (including employee) LAX lots; providing free charging stations for ZEV; including public outreach to reduce air emissions from automobiles accessing airport parking.<br>− Measures to reduce air emissions of vehicles in line to exit parking lots such as pay-on-foot (before getting into car) to minimize idle time at parking check out, including public outreach.<br>− Implementing on-site circulation plan in parking lots to reduce time and associated air emissions from vehicles circulating through lots looking for parking.<br>− Encouraging video conferencing and providing video conferencing capabilities at various locations on the airport to reduce VMT in associated air emissions in the vicinity of the airport.<br>◆ <u>Additional Ridesharing measures such as:</u><br>− Expanding the airport's ridesharing program to include all airport tenants. | | | | |

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| | ◆ Clean Vehicle Fleets measure such as:<br>− Promoting commercial vehicles/trucks/vans using terminal areas (LAX and regional intermodal) to install SULEV/ZEV engines to reduce vehicle air emissions.<br>− Promoting "best-engine" technology (SULEV/ZEV) for rental cars using on-airport RAC facilities to reduce vehicle air emissions.<br>− Consolidating nonrental car shuttles using SULEV/ZEV engines to reduce vehicle air emissions.<br>◆ Energy Conservation measures such as:<br>− Covering, if feasible, any parking structures that receive direct sunlight, to reduce volatile emissions from vehicle gasoline tanks; and installing solar panels on these roofs where feasible to supply electricity or hot water to reduce power production demand and associated air emissions at utility plants.<br>These other components may require the approval of other federal, state, regional, and/or local government agencies. It should be noted that no air quality benefit (i.e., pollutant reduction) was estimated in the Final EIS/EIR for these additional components; hence, implementation of any of these other components would, in conjunction with the FlyAways described above, provide for additional air quality benefits over and above the amount of transportation-related | | | | |

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| | pollutant reductions accounted for in the Final EIS/EIR. | | | | |
| **Hydrology and Water Quality** | | | | | |
| **HWQ-1**<br>**Monitoring Agency:**<br>**LAWA** | **Conceptual Drainage Plan.** Once a Master Plan alternative is selected, and in conjunction with its design, LAWA will develop a conceptual drainage plan of the area within the boundaries of the Master Plan alternative (in accordance with FAA guidelines and to the satisfaction of the City of Los Angeles Department of Public Works, Bureau of Engineering). The purpose of the drainage plan will be to assess area-wide drainage flows as related to the Master Plan project area, and at a level of detail sufficient to identify the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The conceptual drainage plan 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 project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water resulting from the selected Master Plan alternative.<br>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 | 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 the first Master Plan project involving substantial surface alternations or substantial changes to existing operations | Once, upon completion of conceptual drainage plan | Completion of conceptual drainage plan |

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| | acceptable to the LADPW. 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.<br><br>Methods to reduce the peak flow of surface water runoff could include:<br><br>◆ Decreasing impervious area by removing unnecessary pavement or utilizing porous concrete or modular pavement<br>◆ Building storm water detention structures<br>◆ Diverting runoff to pervious areas (reducing directly-connected impervious areas)<br>◆ Diverting runoff to outfalls with additional capacity (reducing the total drainage area for an individual outfall)<br>◆ Redirecting storm water flows to increase the time of concentration<br>Measures to increase drainage capacity could include:<br><br>◆ Increasing the size and slope (capacity) of storm water conveyance structures (pipes, culverts, channels, etc.).<br>◆ Increasing the number of storm water conveyance structures and/or outfalls. | | | | |

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| | To evaluate the effect of the selected Master Plan alternative on surface water quality, LAWA will prepare a specific Standard Urban Stormwater Mitigation Plan (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 stormwater 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.<br><br>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 designing the storm water system through incorporation of the structural and treatment control BMPs specified in the SUSMP.<br><br>The following list includes some of the BMPs that could be employed to infiltrate or treat storm water runoff and dry weather flows, and control peak flow rates.<br><br>◆ Vegetated swales and strips<br>◆ Oil/Water separators<br>◆ Clarifiers<br>◆ Media filtration | | | | |

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| | ◆ Catch basin inserts and screens<br>◆ Continuous flow deflective systems<br>◆ Bioretention and infiltration<br>◆ Detention basins<br>◆ Manufactured treatment units<br>◆ Hydrodynamic devices<br>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.<br>These ranges of removal efficiencies are presented in Table F5-1, Structural BMP Expected Pollutant Removal Efficiency. | | | | |

**Table F5-1**

**Structural BMP Expected Pollutant Removal Efficiency**

| BMP Type | Typical Pollutant Removal (percent) | | | |
|---|---|---|---|---|
| | Suspended Solids | Nitrogen | Phosphorus | Metals |
| Dry Detention Basins | 30-35 | 15-45 | 15-45 | 15-45 |
| Retention Basins | 50-80 | 30-65 | 30-65 | 50-80 |
| Infiltration Basins | 50-80 | 50-80 | 50-80 | 50-80 |
| Infiltration Trenches/Dry Wells | 50-80 | 50-80 | 15-45 | 50-80 |
| Porous Pavement | 65-100 | 65-100 | 30-65 | 65-100 |
| Grassed Swales | 30-65 | 15-45 | 15-45 | 15-45 |
| Vegetated Filter Strips | 50-80 | 50-80 | 50-80 | 30-65 |
| Surface Sand Filters | 50-80 | <30 | 50-80 | 50-80 |
| Other Media Filters | 65-100 | 15-45 | 0 | 50-80 |

Source: U.S. Environmental Protection Agency, Preliminary Data Summary of Urban Storm Water Best Management Practices Methodology, August 1999.

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| | 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.<br><br>These source control BMPs will be incorporated into the LAX Storm Water Pollution Prevention Plan (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.<br><br>The overall result of Master Plan Commitment HWQ-1 will be a 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 either receiving water body as a result of the selected Master Plan alternative. | | | | |

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| **Historical/Architectural and Archaeological/Cultural Resources** | | | | | |
| **MM-HA-4**<br>**Monitoring Agency:**<br>**LAWA** | **Discovery.** The FAA shall prepare an archaeological treatment plan (ATP), in consultation with 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; California Office of Historic Preservation's (OHP) *Archaeological Resources Management* | Loss or destruction of important archaeological resources | Prior to issuance of any excavation and grading permits associated with the first Master Plan project | Once, at approval of ATP | Approval of ATP by LAWA |
| **MM-HA-5**<br>**Monitoring Agency:**<br>**LAWA** | **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 | Loss or destruction of important archaeological resources | Retain archaeologist prior to issuance of excavation and grading permits for first Master Plan project, with continued monitoring efforts in accordance with the ATP | Once, upon retention of archaeologist and on-going 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 |

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| | 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. | | | | |
| **MM-HA-6**<br>**Monitoring Agency:**<br>**LAWA** | **Excavation and Recovery.** Any excavation and recovery of identified resources (features) shall be performed using standard archaeological techniques and the requirements stipulated in the ATP. Any excavations, testing, and/or recovery of resources shall be conducted by a qualified archaeologist selected by LAWA. | Loss or destruction of important archaeological resources | Upon discovery of potential archaeological resources by qualified archaeologist | On-going during excavation and grading activities as identified in ATP | Filing of appropriate reports (i.e. excavation/recovery report) with LAWA by project archaeologist pursuant to ATP. If no resources are found, a report indicating as much should be filed |
| **MM-HA-7**<br>**Monitoring Agency:**<br>**LAWA** | **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. | Loss or destruction of important archaeological resources | Prior to approval of excavation and grading plans (for MM/MPC imprint component); Prior to excavation and grading activities pursuant to ATP (for on-site training component) | Once, upon approval of excavation and grading plans (for MM/MPC imprint component); Prior to initiation of excavation and grading activities, and with construction staff change-outs, pursuant to ATP (for on-site training component) | Sign off of plans by project archaeologist (for MM/MPC imprint component); Filing of sign-in sheet with LAWA by project archaeologist, as specified by ATP (for on-site training component) |

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| **MM-HA-8**<br>**Monitoring Agency:**<br>**LAWA** | **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. | Loss or destruction of important archaeological resources | Upon completion of grading & excavation activities per ATP | Once, upon completion of excavation and grading activities on a project by project basis, pursuant to ATP | Receipt of final report on a project by project basis by LAWA |
| **MM-HA-9**<br>**Monitoring Agency:**<br>**LAWA** | **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 standards. | Loss or destruction of important archaeological resources | Upon completion of each project during which resources were recovered, as stipulated in ATP | Once, at completion of excavation and grading activities on a project by project basis, as stipulated in ATP | Acceptance letter of curated artifacts from selected repository, or offer letter from LAWA to repository |
| **MM-HA-10**<br>**Monitoring Agency:**<br>**LAWA** | **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. | Loss or destruction of important archaeological resources | During excavation and grading activities | When any bone material is encountered and project archaeologist identifies it as human remains | Completion of those steps outlined in Section 15064.5(e) of the CEQA Guidelines and sign off by project archaeologist and, if applicable, selected Native American monitor |

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| **Paleontological Resources** | | | | | |
| **MM-PA-1**<br>**Monitoring Agency:**<br>**LAWA** | **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 Paleontological Management Treatment Plan - 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 Natural History Museum of Los Angeles County to comply with paleontological requirements, as appropriate. | Loss or destruction of important paleontological resources | Prior to issuance of any excavation and grading permits for first Master Plan project | Once, upon retention of paleontologist and approval of the PMTP | Retention of paleontologist and approval of the PMTP by LAWA |
| **MM-PA-2**<br>**Monitoring Agency:**<br>**LAWA** | **Paleontological Authorization.** The paleontologist shall be authorized by LAWA to halt, temporarily divert, or redirect grading in the area of an exposed fossil to facilitate evaluation and, if necessary, salvage. No known or discovered fossils shall be destroyed without the written consent of the project paleontologist. | Loss or destruction of important paleontological resources | Continued monitoring in accordance with the PMTP | On-going during excavation and grading activities as identified in the PMTP | Filing of periodic monitoring reports with LAWA, as stipulated in the PMTP |

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| **MM-PA-3**<br>**Monitoring Agency:**<br>**LAWA** | **Paleontological Monitoring Specifications.** Specifications for paleontological monitoring shall be included in construction contracts for all LAX projects involving excavation activities deeper than six feet. | Loss or destruction of important paleontological resources | Prior to finalization and approval of construction contracts for projects involving excavation deeper than six feet | Once, upon approval of each construction contract on a project-by-project basis | Review and approval of relevant construction contracts by project paleontologist and the filing of such contracts with LAWA |
| **MM-PA-4**<br>**Monitoring Agency:**<br>**LAWA** | **Paleontological Resources Collection.** Because some fossils are small, it will be necessary to collect sediment samples of promising horizons discovered during grading or excavation monitoring for processing through fine mesh screens. Once the samples have been screened, they shall be examined microscopically for small fossils. | Loss or destruction of important paleontological resources | During excavation and grading activities, as stipulated in the PMTP | On-going during excavation and grading activities, as outlined in the PMTP | Filing of collection/ recovery reports with LAWA by project paleontologist, as stipulated in the PMTP |
| **MM-PA-5**<br>**Monitoring Agency:**<br>**LAWA** | **Fossil Preparation.** Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository. | Loss or destruction of important paleontological resources | Upon discovery of significant fossils by project paleontologist | During grading and excavation activities as identified in the PMTP | Filing of appropriate reports by paleontologist with LAWA, as stipulated in the PMTP |
| **MM-PA-6**<br>**Monitoring Agency:**<br>**LAWA** | **Fossil Donation.** All fossils collected shall be donated to a public, nonprofit institution with a research interest in the materials, such as the Los Angeles County Museum of Natural History. | Loss or destruction of important paleontological resources | Upon completion of each project during which fossils were discovered, as outlined in the PMTP | Once, upon completion of grading and excavation activities on a project-by-project basis | Acceptance letter of fossils from accepting repository, or offer letter from LAWA to repository |

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| **MM-PA-7**<br>**Monitoring Agency:**<br>**LAWA** | **Paleontological Reporting.** A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project. | Loss or destruction of important paleontological resources | Upon completion of excavation activities, as outlined in the PMTP | Once, upon completion of excavation activities on a project-by-project basis | Receipt of paleontological report by LAWA. If no resources are found, a report indicating as much should be filed |
| **Biotic Communities** | | | | | |
| **MM-BC-1**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area.** FAA is responsible for conservation measures related to the relocation of navigational aids, while LAWA is responsible for all other conservation measures. All necessary steps shall be taken to ensure that the state-designated sensitive habitats within and adjacent to the Habitat Restoration Area are conserved and protected during construction, operation, and maintenance.<br>These steps shall, at a minimum, include the following:<br>*Implementation of construction avoidance measures in areas where construction or staging are adjacent to the Habitat Restoration Area.* Prior to the initiation of construction of LAX Master Plan components to be located adjacent to the Habitat Restoration Area, a pre-construction evaluation shall be conducted to identify and flag specific areas of state-designated sensitive habitats located within 100 feet of | Temporary construction impacts to sensitive areas and degradation of state-designated sensitive habitats | Preconstruction/construction | Once, upon completion of pre-construction evaluation and then on-going during construction if within 100 feet of the Habitat Restoration Area; Annually during operation and maintenance | Completion of pre-construction evaluation and presence of environmental monitor when construction is within 100 feet of state-designated sensitive habitat; Periodic Monitoring Report |

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| | construction areas. Subsequent to the pre-construction evaluation, a pre-construction meeting shall be conducted and written construction avoidance measures provided to be implemented in areas adjacent to state-designated sensitive habitats. Construction avoidance measures include erecting a 10-foot-high tarped chain-link fence where the construction or staging area is adjacent to state-designated sensitive habitats to reduce the transport of fugitive dust particles related to construction activities. Soil stabilization, watering or other dust control measures, as feasible and appropriate, shall be implemented to reduce fugitive dust emissions during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area, with a goal to reduce fugitive dust emissions by 90 to 95 percent. In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of a state-designated sensitive habitat. LAWA or its designee shall incorporate provisions for the identification of additional construction avoidance measures to be implemented adjacent to state-designated sensitive areas. All construction avoidance measures that address Best Management Practices shall be clearly stated within construction bid documents. In addition, provisions shall be included in all construction bid documents requiring the presence of a qualified environmental monitor. Construction drawings shall indicate vegetated areas within the Habitat Restoration Area as "Off-Limits Zone." | | | | |

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| | *Ongoing maintenance and management efforts for the El Segundo Blue Butterfly Habitat Restoration Area.* LAWA or its designee shall ensure that maintenance and management efforts prescribed in the Habitat Management Plan (HMP) for the Habitat Restoration Area shall continue to be carried out as prescribed. | | | | |
| **MM-BC-3**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Floral Resources: Mature Tree Replacement.** LAWA or its designee shall prepare and implement a plan to compensate at a ratio of 2:1 for the loss of approximately 300 mature trees, which would occur as a result of implementation of the LAX Northside project. The plan shall include provisions to census and map all mature trees with a diameter of at least 8 inches at breast height, which may be removed due to implementation of the LAX Northside project. This information shall be gathered prior to initiation of construction. The plan shall include a program by which replacement (at a ratio of 2:1) of all impacted mature trees shall be included in plans prepared for landscape treatments within the Master Plan boundaries, which would then be implemented by LAWA. The species of newly planted replacement trees shall be local native tree species to the extent feasible. Each mitigation tree shall be at least a 15-gallon or larger specimen. | Loss of mature trees | Preparation of Replacement Plan for Mature Trees within one (1) year of City Council approval of the LAX Plan; Replanting as dictated by Replacement Plan; Preparation of survey prior to initiation of construction of LAX Northside project | As per Replacement Plan for Mature Trees | Completion of survey and preparation of Replacement Plan for Mature Trees; Periodic Monitoring Report |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-BC-8**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Replacement of Habitat Units.** LAWA or its designee shall undertake mitigation for the loss of habitat units resulting from implementation of Alternative D. Implementation of Alternative D would result in the loss of 45.43 habitat units. These habitat units shall be replaced at a 1:1 ratio within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 45.43 habitat units include 13.52 habitat units (16.9 acres x 0.8 Habitat Value) from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune (36.11 acres of streets within the Los Angeles/El Segundo Dunes x 0.5 x 0.8 Habitat Value); and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune (74.6 acres x 0.8 Habitat Value). A habitat value of 0.8 is considered to be the maximum feasible target value for restoration and enhancement of biotic communities. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the US Fish and Wildlife Service, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes. | Loss of habitat/open space | Preparation of Replacement Plan for Habitat Units within three (3) years of City Council approval of the LAX Plan; Implementation per Replacement Plan | As per Replacement Plan for Habitat Units | Preparation of Replacement Plan for Habitat Units; Periodic Monitoring Report |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | Valley Needlegrass Grassland restoration efforts consist of site preparation, propagation and planting of species characteristic of the Valley Needlegrass Grassland community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site. The species to be planted include native perennials as described in the Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes. The characteristic species include nodding needlegrass (Nassella cernua): 1,500 plants/habitat unit; white everlasting (Gnaphalium microcephalum): 40 plants/habitat unit; doveweed (Eremocarpus setigerus): 40 plants/habitat unit; California croton (Croton californicus): 45 plants/habitat unit; and dune primrose (Camissonia chieranthifolia): 70 plants/habitat unit. Site preparation includes physical demarcation of the site, mapping of the restoration site onto a one inch equals 40 feet aerial photograph, and removal of all non-native species (weed abatement). Removal of non-native herbaceous species shall take place by mowing prior to seed set, raking to remove cut material, and hand-pulling the remainder. Removal of non-native shrubs shall be undertaken by cutting and daubing with herbicide. Propagation and planting of nodding needlegrass shall be accomplished by propagation from seed collected on-site during late spring/early summer. Seed shall be properly cleaned, dried, and stored until used. In late summer, nodding needlegrass seed shall be propagated at an on-site nursery in two-inch thimble pots and properly maintained. Nodding needlegrass shall be planted at a rate of 1,500 plants per habitat | | | | |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | unit within Non-Native Grassland/Ruderal community, within the Los Angeles/El Segundo Dunes, which has undergone site preparation as described above. Planting shall take place in the fall or after the first welling rain. Maintenance of restoration plantings shall consist of adequate irrigation and weed abatement. Given the irregularity of rainfall in southern California, supplemental irrigation shall be provided for two years to ensure the successful establishment of mitigation plantings. Irrigation of the site shall be adjusted to adequately provide for the establishment of the out-plantings. Weed abatement shall take place on a quarterly basis for a period of five years. Monitoring shall be undertaken on a quarterly basis for the first three years following planting, and twice a year thereafter. Monitoring shall consist of qualitative and quantitative monitoring; quantitative monitoring shall take place once a year. Performance criteria to be met include the attainment of at least a 10 percent cover of native cover in the first year and 20, 30, 40 and 45 percent cover of native species over a five-year period as determined by the point-intercept transect method (the CDFG has adopted a 10 percent threshold of native cover as its criteria for significance of native grasslands). This plan assumes the performance criteria outlined below shall be met. If monitoring discerns any failure in performance goals, remedial plantings shall be undertaken. Habitat restoration shall be conducted by a qualified habitat restoration specialist. | | | | |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | Southern Foredune restoration efforts consist of site preparation, propagation, and planting of the species characteristic of the Southern Foredune community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site. The species to be planted include primary and secondary perennial plants as described in the Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes. Site preparation, propagation and planting, and maintenance and monitoring shall take place as described above. Performance criteria to be met include the attainment of 10, 20, 30, 40, and 45 percent cover of native species over a five-year period as determined by the point intercept method. The Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes assumes the performance criteria stated above shall be met. If monitoring discerns any failure in performance goals, remedial plantings shall be undertaken. Habitat restoration shall be conducted by a qualified habitat restoration specialist.<br><br>Any combination of habitat replacement completed by LAWA or its designee drawn from the opportunities listed under Alternative D that equals at least 45.43 habitat units shall be considered sufficient replacement for loss of habitat units resulting from implementation of Alternative D. | | | | |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-BC-9**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Faunal Resources.** FAA is responsible for conservation measures related to the relocation of navigational aids, while LAWA is responsible for all other conservation measures. LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 1.34 habitat units (0.3 habitat units + 1.04 habitat units) of occupied western spadefoot toad habitat and for the loss of western spadefoot toad individuals currently in the southwestern portion of the AOA. LAWA or its designee shall identify possible relocation sites in consultation with the CDFG and USFWS and shall develop and implement a monitoring plan to monitor the success of the relocated tadpoles for a period of not more than five years. LAWA or its designee shall relocate the western spadefoot toad population currently inhabiting three locations on the AOA. One potential site is the Madrona Marsh Nature Center in Torrance, 20 miles south of LAX, which supports several vernal pools and one large pond capable of supporting western spadefoot toads. Spadefoot toad experts suggest the best approach to accomplish relocation is to transport tadpoles and metamorphs only, as adults return to their birth site. Site preparation shall include confirmation by a permitted biologist that no predators, such as mosquitofish or bullfrogs, are present within the proposed relocation site or in waterways surrounding the relocation site. The CDFG has suggested that if the first relocation effort is not successful, another attempt should be made the following year. Therefore, western spadefoot toads shall be collected two | Loss of habitat occupied by sensitive species | Preparation of Conservation Plan for Faunal Resources within three (3) years of City Council approval of the LAX Plan; implementation per Conservation Plan. Toad relocation and monitoring component of the Conservation Plan to be undertaken in connection with MM-ET-1 (Riverside Fairy Shrimp Habitat Restoration) | As per Conservation Plan for Faunal Resources | Preparation of Conservation Plan for Faunal Resources; Periodic Monitoring Report |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | consecutive years prior to construction activities taking place in existing occupied spadefoot toad habitat. In addition, since the western spadefoot toad is known to become reproductively mature within three years, an additional performance criterion shall be the identification of tadpoles at the relocation site between years three and four. The success criteria should be 50 percent survival of all tadpoles and metamorphs for the first, second, and third years following the last relocation. This shall be accomplished through a five-year monitoring plan, with bi-monthly monitoring between January 31 and June 1, to document the success of this relocation effort. LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 2.38 habitat units of occupied San Diego black-tailed jackrabbit habitat located within the AOA. LAWA or its designee shall relocate the San Diego black-tailed jackrabbit population currently inhabiting the AOA. Relocation efforts shall be coordinated with CDFG. The San Diego black-tailed jackrabbit shall be captured on the AOA using live traps and shall be released into the Habitat Restoration Area. Compensation for the loss of 2.38 habitat units shall be the utilization of at least 2.38 habitat units within the Los Angeles/El Segundo Dunes by the San Diego black-tailed jackrabbit individuals relocated to the site. Black-tailed jackrabbit is currently absent from the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 2.38 habitat units include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat | | | | |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. LAWA or its designee shall implement a monitoring plan to monitor the success of the relocated individuals for a period of not more than five years. Performance criteria shall include confirmed success of survival for three years of the San Diego black-tailed jackrabbit within the Habitat Restoration Area. This shall be accomplished through a quarterly monitoring plan to document the success or failure of this relocation effort.<br><br>LAWA or its designee shall compensate for the loss of areas utilized by loggerhead shrike currently located on the western airfield and composed of 10.83 habitat units (equivalent to 83.25 acres). Compensation for the loss of 10.83 habitat units of habitat utilized by the loggerhead shrike shall be the utilization of at least 10.83 habitat units within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 10.83 habitat units include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. Compensation for the loss of at least 10.83 habitat units shall take place prior to construction. LAWA or its designee shall implement a monitoring program for a period of not more than five years. Performance criteria shall | | | | |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | include the use of at least 10.83 habitat units of improved habitat by the loggerhead shrike for foraging and nesting. Monitoring shall take place quarterly for the first three years and biannually thereafter. Monitoring shall be timed appropriately to include monitoring during the breeding period, which is between February and June.<br><br>As a means of minimizing incidental take of active nests of loggerhead shrike, LAWA or its designee shall have all areas to be graded surveyed by a qualified biologist at least 14 days before construction activities begin to ensure maximum avoidance to active nests for loggerhead shrike. Construction avoidance measures shall include flagging of all active nests for loggerhead shrike and a 300 feet wide buffer area shall be designated around the active nests. A biological monitor shall be present to ensure that the buffer area is not infringed upon during the active nesting season, March 15 to August 15. In addition, LAWA or its designee shall require that vegetation clearing within the designated 300 feet buffer be undertaken after August 15 and before March 15.<br><br>The FAA or LAWA as appropriate, or the respective designee of each, shall conduct pre-construction surveys to determine the presence of individuals of sensitive arthropod species, the silvery legless lizard, the San Diego horned lizard, and the burrowing owl within the proposed area of impact within the Los Angeles/El Segundo Dunes. Surveys will be conducted at the optimum time to observe these | | | | |

**Mitigation Monitoring and Reporting Program**
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| | species as described in Section 6.1 of the "Los Angeles/El Segundo Dunes Habitat Restoration Plan." Should an individual be observed, they will be relocated to suitable habitat for that species within the Habitat Restoration Area. Prior to construction, the FAA or its designee shall develop and implement a relocation plan to avoid the potential loss of individuals from the installation of navigational aids and associated service roads. This relocation plan is provided in the "Los Angeles/El Segundo Dunes Habitat Restoration Plan." Relocation efforts shall be undertaken by a qualified biologist, in coordination with CDFG. | | | | |
| **Endangered and Threatened Species** | | | | | |
| **MM-ET-1**<br>**Monitoring Agency:**<br>**LAWA** | **Riverside Fairy Shrimp Habitat Restoration.** LAWA or its designee shall undertake mitigation for direct impacts to 0.04 acre (1,853 square feet) of degraded wetland habitat containing embedded cysts of Riverside fairy shrimp and potential indirect impacts to 1.26 acres of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp. As specified in the Biological Opinion, soils containing embedded cysts of the Riverside fairy shrimp in 0.04 acres (1,853 square feet) shall be salvaged and relocated to property owned by the FAA and designated a habitat preserve at the former Marine Corps Air Station at El Toro, or comparable site(s) approved by the USFWS at a ratio of not more than 3:1. The 1.26 acres of degraded wetland habitat containing embedded cysts of the Riverside fairy | Loss of occupied habitat of endangered Riverside Fairy Shrimp associated with implementation of the LAX Master Plan | Preparation of Habitat Restoration Plan for Riverside Fairy Shrimp prior to issuance of grading or demolition permit for any project impacting the Riverside Fairy Shrimp; Implementation per Habitat Restoration Plan | As per Habitat Restoration Plan for Riverside Fairy Shrimp | Preparation of Habitat Restoration Plan for Riverside Fairy Shrimp; Periodic Monitoring Report |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | shrimp retained on the LAX airfield shall be avoided through the implementation of construction avoidance measures, including Best Management Practices (BMPs), and the creation of a buffer area around the occupied, degraded areas. The FAA shall oversee the development of a Vernal Pool Creation, Maintenance, and Monitoring Plan for the embedded cysts to ensure that Alternative D would be consistent with the recommendations provided in the *Recovery Plan for Vernal Pools of Southern California,* and with the conservation measures provided in the Biological Opinion. As specified in the Biological Opinion, LAWA shall be responsible for all costs identified in the Vernal Pool Creation, Maintenance, and Monitoring Plan related to off-site relocation of soils containing cysts of the Riverside fairy shrimp, including entitlement for use and designation for long-term conservation, site preparation, monitoring, and maintenance.<br><br>Ongoing Section 7 consultation among LAWA, FAA, and USFWS has been necessary to identify suitable mitigation sites pursuant to Section 7 of the Endangered Species Act. As a result, extensive research has been conducted to identify sites that historically or currently support vernal pools or vernal pool- associated species in southern California. Information was gathered from the *Recovery Plan for Vernal Pools of Southern California*, the California Natural Diversity Database (CNDDB), and coordination with recognized experts in the field. This information was augmented through a review of geologic maps of the coastal portions of Los Angeles and topographic | | | | |

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| | quadrangles for locations known to have historically supported vernal pools. A total of 35 potential relocation sites were identified for further site characterization (Figure F5-2, Vernal Pool Restoration Opportunities Considered).<br><br>Each of the 35 sites was visited and inspected by teams of biologists and environmental analysts. Analysis of site topography, historic or extant vernal pools, historic or extant vernal pool species, drainage features, climate, and parent material (from regional geologic maps) was conducted. Hazardous materials databases were consulted for information on known potential sources of contamination for those sites. In-field soil texture analysis was conducted, followed by laboratory analysis of collected soil samples. Land use at the site and surrounding the site was characterized, plant communities were characterized, and the presence or absence of suitable hydrology was determined.<br><br>Prioritization of the potential sites for the relocation of soils containing cysts of the Riverside fairy shrimp was based solely on the presence of physical and biological characteristics provided in the *Recovery Plan for Vernal Pools of Southern California* and did not reflect planning constraints indicated by current land uses. LAWA and FAA, in consultation with the USFWS, recommended the relocation of cysts to alternate locations within the Los Angeles County portion of the Los Angeles Basin-Orange Management Area for vernal pools (Figure F5-2). The use of these sites | | | | |

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| | within Los Angeles County was determined infeasible and LAWA undertook evaluation of the feasibility of vernal pools or vernal pool complexes located in the Orange County portion of the Los Angeles Basin-Orange Management Area and the Ventura County portion of the Transverse Management Area. As a result of consultation with the USFWS, property owned by FAA and designated a habitat preserve at the former Marine Corps Air Station at El Toro was identified as a mitigation site for the receipt of soils containing embedded cysts of the Riverside fairy shrimp, or an alternate comparable site(s).<br><br>Once a suitable mitigation site(s) is secured, vernal pool creation shall be undertaken by LAWA or its designee, in consultation with the USFWS. Methods of vernal pool creation may vary depending on the physical and biological characteristics of the selected sites. LAWA or its designee, in conjunction with the USFWS and a qualified wildlife biologist, shall develop a program to monitor the progress of vernal pool creation. LAWA or its designee shall undertake the relocation of soils containing embedded cysts of Riverside fairy shrimp from the western portion of the airfield to the vernal pool mitigation sites. Soils containing embedded cysts of the Riverside fairy shrimp shall not be salvaged and translocated until the created vernal pool(s) is established and has met certain success criteria as described in detail below and included in the 12 conservation measures within the Biological Opinion. | | | | |

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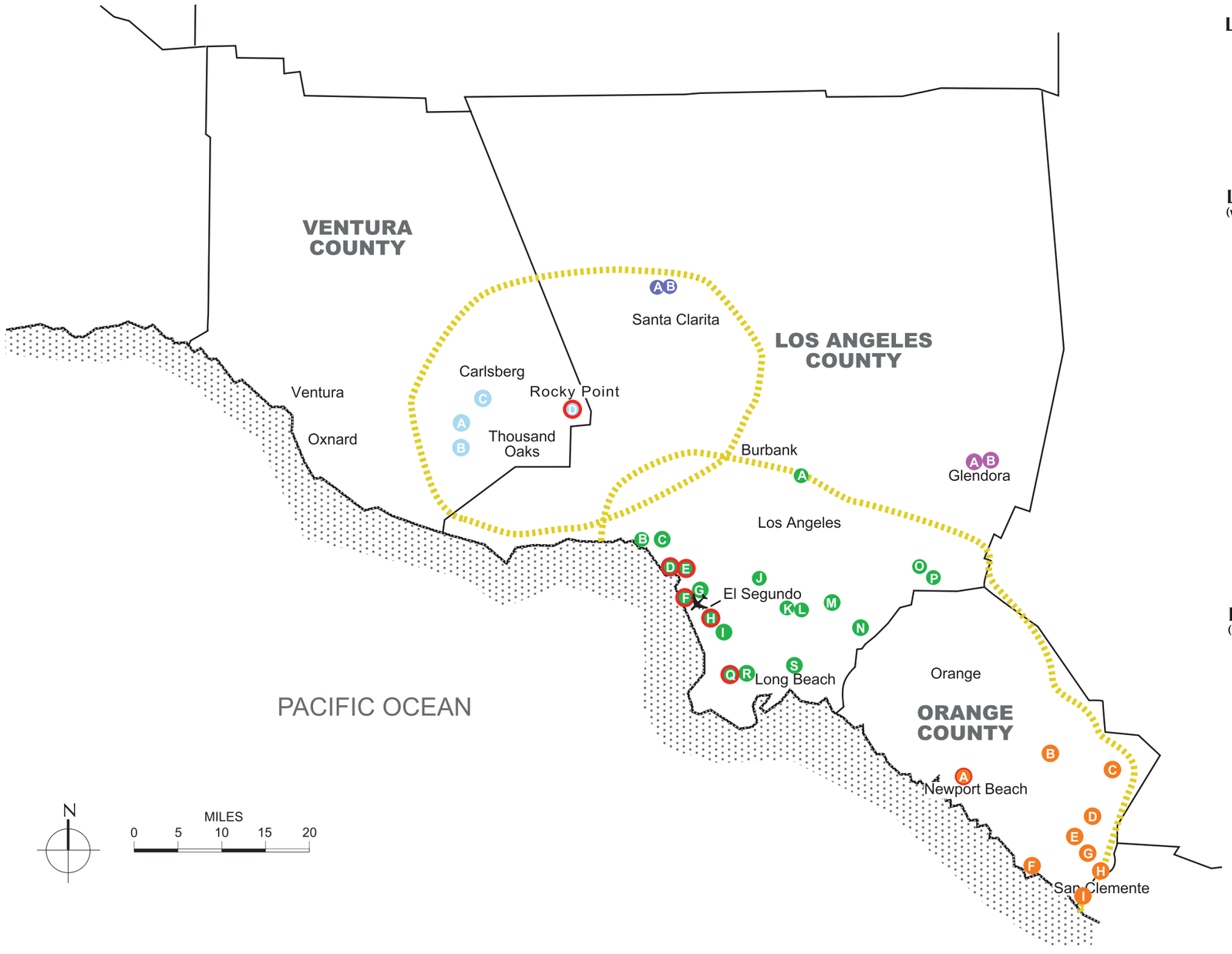
| | Soils containing embedded cysts of the Riverside fairy shrimp from EW001 and EW002 (Figure F5-3, North Area Ephemerally Wetted Pools and Buffer Areas) shall be salvaged and translocated to created vernal pool habitat on property owned by the FAA and designated as a habitat preserve at the former Marine Corps Air Station at El Toro (El Toro), or another site as approved by Carlsbad Fish and Wildlife Office (CFWO). The created vernal pool(s) shall contain a minimum of 5,559 square feet of vernal pool surface area (as determined by a 3:1 mitigation ratio). Soils containing embedded cysts of the Riverside fairy shrimp from EW001 and EW002 will not be salvaged and translocated from LAX until the created vernal pool(s) is established and has met certain success criteria specified in the Biological Opinion. | | | | |




## LEGEND

- County Boundary
- Vernal Pool Management Areas
- Los Angeles International Airport

### Los Angeles Basin-Orange (within Los Angeles County)

- A Burbank
- B Santa Monica
- C Soliders House
- D Ballona Marsh
- E Ballona Bluff
- F El Segundo Dunes
- G Airfield Operations Area
- H El Segundo
- I Redondo Beach
- J Hyde Park
- K Gardena
- L Rosecrans
- M Downey
- N Lakewood
- O Whittier
- P La Habra
- Q Madrona Marsh
- R Henrietta Basin
- S Bixby Knolls

### Los Angeles Basin-Orange (within Orange County)

- A Fairview Park
- B Irvine
- C Saddleback Meadows
- D Chiquita Ridge
- E Laguna Lakes
- F Dana Point
- G San Mateo
- H Lomas Ridge
- I San Clemente

### Transverse (within Los Angeles County)

- A Cruzan Mesa
- B Southern Cruzan Mesa

### Transverse (within Ventura County)

- A Thousand Oaks(a)
- B Thousand Oaks(b)
- C Carlsberg
- D Rocky Point

### Other Los Angeles County Locations

- A Glendora
- B San Dimas

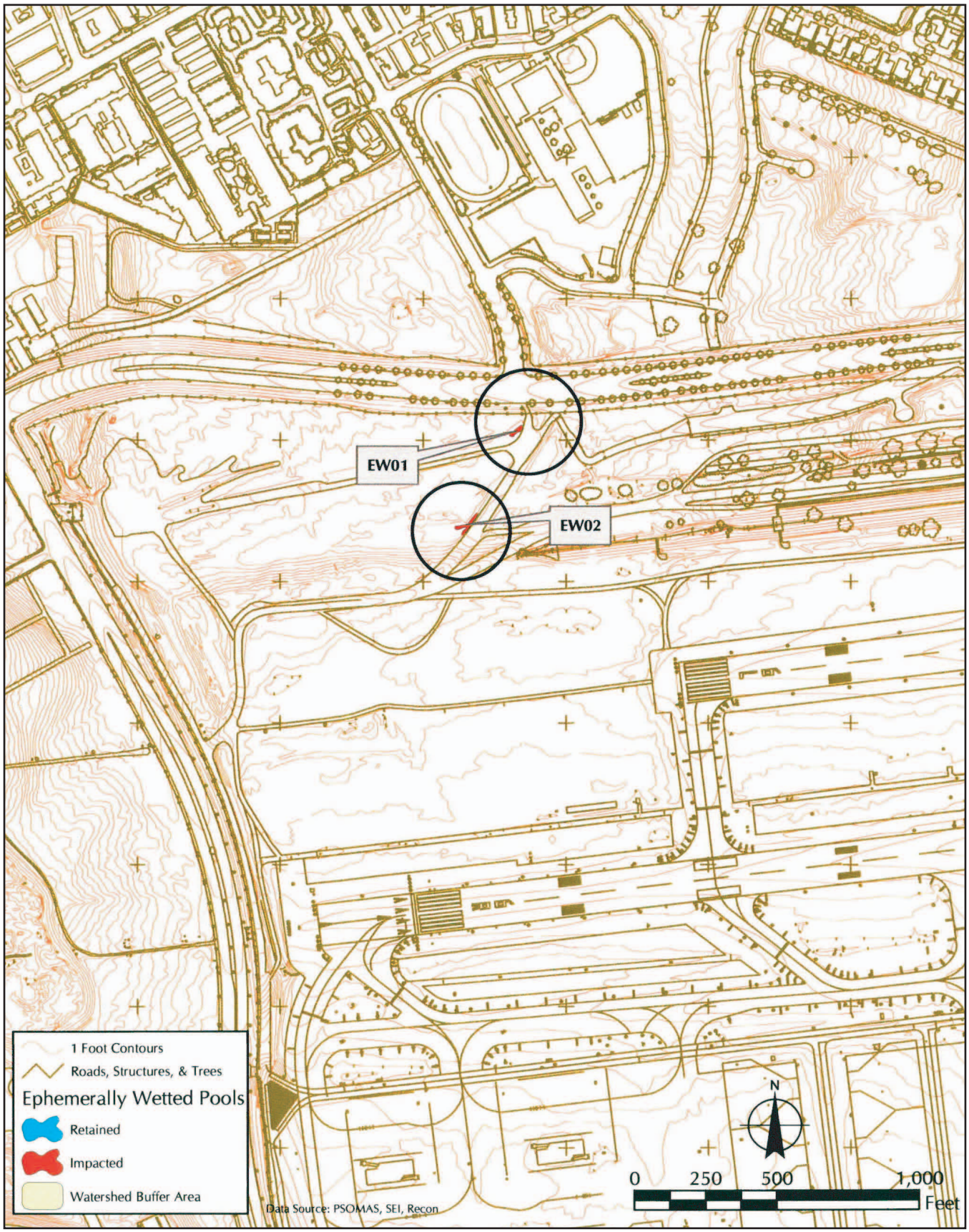
### Sites Considered in Feasibility Assessment for Conservation of Riverside Fairy Shrimp

- D Ballona Marsh
- E Ballona Bluff
- F El Segundo Dunes
- H El Segundo
- Q Madrona Marsh
- D Rocky Point
- A Fairview Park

LAX Master Plan Final EIS/EIR

**Vernal Pool Restoration Opportunities Considered**

Figure




| LAX Master Plan Final EIS/EIR | North Area Ephemerally Wetted Pools and Buffer Areas | Figure |
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| | | |
|---|---|---|
| **LAX Master Plan Final EIS/EIR** | **South Area Ephemerally Wetted Pools and Buffer Areas** | Figure |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | As a contingency measure, if the specified success criteria for the created vernal pools have not been attained within six years of project authorization, in spite of a good faith effort on the part of LAWA, soils containing embedded cysts of the Riverside fairy shrimp will be salvaged from EW001 and EW002 and placed in appropriate storage at the San Diego Zoological Society's Center for the Reproduction of Endangered Species. Soils containing embedded cysts of the Riverside fairy shrimp from EW006 (Figure F5-4, South Area Ephemerally Wetted Pools and Buffer Areas) shall be salvaged and stored prior to implementation of Alternative D and shall be translocated to the created vernal pool(s) with EW001 and EW002 once the success criteria are met. Soils containing embedded cysts of the Riverside fairy shrimp from EW006 shall be placed in appropriate storage at the San Diego Zoological Society's Center for the Reproduction of Endangered Species. Until soils bearing embedded cysts of the Riverside fairy shrimp have been appropriately salvaged and stored, or vernal pool creation has been completed and embedded cysts have been appropriately salvaged and translocated to the created vernal pool(s), habitat-altering activities associated with Alternative D in these areas shall be avoided.<br><br>LAWA shall be responsible for implementing construction avoidance measures for the six areas (EW009, EW012, EW013, EW014, EW015 and EW016) that would not be directly affected, as indicated in the Biological Opinion. Construction | | | | |

**Mitigation Monitoring and Reporting Program**
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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | avoidance measures shall include implementation of construction avoidance measures, including BMPs required pursuant to the Standard Urban Stormwater Mitigation Plan and the LAX Stormwater Pollution Prevention Plan, and establishment of a buffer area around the six occupied areas retained on the LAX airfield (Figure F5-4). In addition, LAX operations personnel with vehicular access to the airfield operations area shall be apprised of these off-limit buffer areas annually. The construction avoidance measures shall be periodically inspected by LAWA, or its designee throughout construction to ensure the efficacy of the BMPs, and corrective action shall be undertaken as necessary to ensure that construction and operation of airport facilities do not result in adverse impacts to surface water quality.<br><br>Soils containing embedded cysts of the Riverside fairy shrimp will not be translocated to the created vernal pool(s) until the vernal pool(s) is established and has met certain success criteria specified in the Biological Opinion. Success criteria for the created vernal pool(s) includes holding water for a minimum of 60 days, having less than 10 percent absolute cover of exotic herbaceous species in the pool(s), having less than 20 percent absolute cover of exotic herbaceous species with 300 feet of the area from limits of the pool, removal of all non-herbaceous plant species within the pool and 300 feet from the pool annually, and provide suitable water quality for the Riverside fairy shrimp. Duration of inundation, exotic species removal, and water quality analyses may be undertaken within the first year after vernal pool | | | | |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | creation. The performance criteria for percent absolute cover of exotic herbaceous species within 300 feet of the area from limits of the pool may be redesignated by mutual agreement of FAA, LAWA and USFWS.<br><br>Upon meeting success criteria and approval from the USFWS, soils containing embedded cysts of the Riverside fairy shrimp may be brought to the pool(s). LAWA shall make every effort to collect all cyst-bearing soils from the entire surface area of EW001, EW002, and EW006, however, it is expected that some small number of undetected individual cysts will remain in the soil. Soil containing the cysts shall be salvaged and translocated during the dry season to minimize damage to the cysts during transport. The soil shall be collected using a hand trowel, removed in chucks, and kept out of direct sunlight to ensure viability. Soil shall be stored in properly labeled boxes or bags with adequate ventilation. The soils shall then be redeposited and spread out in small basins or pool-like areas of similar size without active mechanical compaction to minimize potential damage to the cysts. Any potential indirect environmental impacts resulting from vernal pool construction activities shall be compliant with BMPs and terms and conditions stipulated by the permitting agencies.<br><br>LAWA or its designee, in conjunction with the USFWS and a qualified wildlife biologist, shall also develop a program to monitor created habitat for the presence of Riverside fairy shrimp as described in the Vernal Pool Creation, Maintenance, and Monitoring Plan. As specified in the Biological Opinion, LAWA shall be | | | | |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | responsible for implementing a monitoring and reporting program to demonstrate successful achievement of the performance standards for off-site relocation over a 25-year period:<br>◆ Monthly during the first year, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Quarterly in the second, third, and fourth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Biannually in the fifth, seventh, and ninth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Annually in the tenth, fifteenth, twentieth, and twenty-fifth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>LAWA shall provide the USFWS with annual monitoring reports as specified in the Vernal Pool Creation, Maintenance, and Monitoring Plan. The monitoring report, due on September 1 of each specified monitoring year, shall provide information regarding the implementation of the vernal pool creation, restoration, and maintenance activities. The yearly report shall also discuss the effectiveness of the project as it pertains to the existing condition of the created vernal pool(s) and Riverside fairy shrimp population. To measure the effectiveness of the created vernal pool(s), the FAA and LAWA shall work with the USFWS to develop long-term goals and objectives as part of their habitat creation plan. | | | | |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | Lastly, LAWA shall coordinate with the USFWS to create educational materials on the Riverside fairy shrimp for integration into LAWA's public outreach program. Educational opportunities regarding federally endangered Riverside fairy shrimp include public outreach in the form of an educational brochure made available through the LAWA Public Affairs Department, information provided on LAWA's Web site describing the ephemeral habitat required to support the species, and LAWA's outreach to local schools.<br><br>Implementation of Mitigation Measure MM-ET-1 would provide for the replacement of 0.04 acres (1,853 square feet) of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp, with an estimated habitat value of 0.15; with 0.12 acres (5,559 square feet) of created vernal pool habitat with an estimated habitat value of 0.75 (see Table F5-11, Mitigation Land Evaluation Procedure for the Mitigation Site). By relocating embedded cysts to habitat restoration sites that are managed for the existence of the species, the opportunity for embedded cysts to complete the adult phase of their life cycle would be enhanced. | | | | |

**Table F5-11**

**Mitigation Land Evaluation Procedure for the Mitigation Site**

| | Habitat Reference Sites | Riverside Fairy Shrimp Wetland Habitat Mitigation Site |
|---|---|---|
| **Topography/Hydrology** | **0.20** | **0.20** |
| Mound-Depression Microrelief | 0.05 | 0.05 |
| Native Soils w/Slope <10% | 0.05 | 0.05 |
| Areas w/Period of Inundation ≥30 days | 0.05 | 0.05 |
| Summer Desiccation | 0.05 | 0.05 |
| **Flora** | **0.20** | **0.20** |
| >10% Vegetative Cover | 0.05 | 0.05 |
| Native Grasses >10% | 0.05 | 0.05 |
| Vernal Pool Associated Species | 0.05 | 0.05 |
| Listed Vernal Pool Associated Species | 0.05 | 0.05 |
| **Fauna** | **0.20** | **0.15** |
| Dominated by Native Fauna (reproducing) | 0.05 | 0.05 |
| Grassland-Associated Species (reproducing) | 0.05 | 0.05 |
| Sensitive Vernal Pool-Associated Species (reproducing) | 0.05 | 0.05 |
| Listed Vernal Pool-Associated Species (reproducing) | 0.05 | 0.00 |
| **Ecosystem Functional Integrity** | **0.40** | **0.20** |
| Contiguous w/Wetland and State-designated Sensitive Terrestrial Habitat | 0.10 | 0.00 |
| Under Regulatory Conservation | 0.10 | 0.10 |
| Variety of Pollinator/Dispersal Mechanisms Present (Wind, Wildlife) | 0.10 | 0.10 |
| Contiguous Native Habitat >40 acres | 0.10 | 0.00 |
| **Total Habitat Value (HV)** | **1.00** | **0.75** |

Source: Sapphos Environmental, Inc. 2003.

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
|---|---|---|---|---|---|
| **MM-ET-3**<br>**Monitoring Agency:**<br>**LAWA** | **El Segundo Blue Butterfly Conservation: Dust Control.** To reduce the transport of fugitive dust particles related to construction activities, soil stabilization, watering or other dust control measures, as feasible and appropriate, shall be implemented with a goal to reduce fugitive dust emissions by 90 to 95 percent during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area. In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of occupied habitat of the El Segundo blue butterfly. | Temporary construction impacts | Preconstruction/ construction | Once, upon execution of contracts, and periodically during construction | Inclusion of measure in construction contracts; Periodic reporting by construction monitor |
| **Energy Supply** | | | | | |
| **E-1**<br>**Monitoring Agency:**<br>**LAWA** | **Energy Conservation and Efficiency Program.** LAWA will seek to continually improve the energy efficiency of building design and layouts during the implementation of the LAX Master Plan. Title 24, Part 6, Article 2 of the California Administrative Code establishes maximum energy consumption levels for heating and cooling of new buildings to assure that energy conservation is incorporated into the design of new buildings. LAWA will design new facilities to meet or exceed the prescriptive standards required under Title 24. Some of the energy conservation measures that LAWA may incorporate into the design of new buildings and airports facilities may include the use of | Avoid a substantial increase in energy consumption due to the development of new facilities | Prior to approval of building plans for each project involving new or substantially renovated buildings that consume electricity or natural gas | Once prior to approval of building plans | Approval of building plans by LADBS or LADPW, as appropriate |

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| | energy-efficient building materials, energy-saving lighting systems, energy-efficient air-conditioning systems, energy-efficient water-heating systems, and designed-in access for alternative means of surface transportation, including the Green Line and the APM. These energy conservation measures may be further improved upon as energy-saving design approaches and technologies develop. | | | | |
| **E-2**<br>**Monitoring Agency:**<br>**LAWA** | **Coordination with Utility Providers.** LAWA will implement Master Plan activities in coordination with local utility providers. Utility providers will provide input on the layout of utilities at LAX to assure that LAX and the surrounding region receive both safe and uninterrupted service. When service by existing utility lines could be affected by airport design features, LAWA will work with the utility to identify alternative means of providing equivalent or superior post-construction utility service. | Potential for incompatibility and/or inefficiency of new utilities | Plan for each project to be completed prior to issuance of demolition permit, grading permit, building plans or B-Permit, whichever occurs first, as applicable | Once prior to issuance of applicable permit | Submittal of utility compatibility plan to the satisfaction of affected utilities |
| **PU-1**<br>**Monitoring Agency:**<br>**LAWA** | **Develop a Utility Relocation Program.** LAWA will develop and implement a utilities relocation program to minimize interference with existing utilities associated with LAX Master Plan facility construction. Prior to initiating construction of a Master Plan component, LAWA will prepare a construction evaluation to determine if the proposed construction will interfere with existing utility location or operation. LAWA will determine utility relocation needs and, for sites on LAX property, LAWA will develop a plan for relocating existing utilities as necessary before, during, and after construction of LAX Master Plan | Disturbance of existing utility lines/systems | Plan to be completed prior to issuance of demolition permit, grading permit, building permit or B-Permit, whichever occurs first, as applicable | Once prior to issuance of applicable permit | Submittal of utility relocation plan to the satisfaction of affected utilities |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | features. LAWA will implement the utility relocation program during construction of LAX Master Plan improvements. | | | | |
| **Light Emissions** | | | | | |
| **LI-2**<br>**Monitoring Agency:**<br>**LAWA** | **Use of Non-Glare Generating Building Materials.** Prior to approval of final plans, LAWA will ensure that proposed LAX facilities will be constructed to maximize use of non-reflective materials and minimize use of undifferentiated expanses of glass. | Avoidance of adverse glare effects on aviation and other sensitive uses | Prior to issuance of a building permit for each Master Plan project (excluding airfield projects) | Twice: Once during plan review and once during project construction, on a project-by-project basis | Sign-off on plans by LAWA prior to issuance of building permit and completion of site inspection for materials during construction |
| **LI-3**<br>**Monitoring Agency:**<br>**LAWA** | **Lighting Controls.** Prior to final approval of plans for new lighting, LAWA will conduct reviews of lighting type and placement to ensure that lighting will not interfere with aeronautical lights or otherwise impair Airport Traffic Control Tower or pilot operations. Plan reviews will also ensure, where feasible, that lighting is shielded and focused to avoid glare or unnecessary light spillover. In addition, LAWA or its designee will undertake consultation in selection of appropriate lighting type and placement, where feasible, to ensure that new lights or changes in lighting will not have an adverse effect on the natural behavior of sensitive flora and fauna within the Habitat Restoration Area. | Avoidance of adverse light and glare effects on aviation activities and other sensitive uses | Prior to issuance of any MEP permits or B-permits which include lighting | Once, during review of lighting plans on a project-by-project basis | Approval of lighting plans by LAWA prior to issuance of MEP permits or B-permits involving lighting |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **Solid Waste** | | | | | |
| **SW-1**<br>**Monitoring Agency:**<br>**LAWA** | **Implement an Enhanced Recycling Program.** LAWA will enhance their existing recycling program, based on successful programs at other airports and similar facilities, Features of the enhanced recycling program will include: expansion of the existing terminal recycling program to all terminals, including new terminals; development of a recycling program at LAX Northside/Westchester Southside; lease provisions requiring that tenants meet specified diversion goals; and preference for recycled materials during procurement where, practical and appropriate. | Generation of additional solid waste due to increased activity levels at LAX | Prior to issuance of certificate of occupancy for any use developed in LAX Northside, or approval of building permits for CTA improvements, whichever occurs first | Annually | Annual confirmation that LAX and LAX Northside are exceeding waste reductions requirements of AB 939 |
| **SW-2**<br>**Monitoring Agency:**<br>**LAWA** | **Requirements for the Use of Recycled Materials during Construction.** LAWA will require, where feasible, that contractors use a specified minimum percentage of recycled materials during construction of LAX Master Plan improvements. The percentage of recycled materials required will be specified in the construction bid documents. Recycled materials may include, but are not limited to, asphalt, drywall, steel, aluminum, ceramic tile, cellulose insulation, and composite engineered wood products. The use of recycled materials in LAX Master Plan construction will help to reduce the project's reliance upon virgin materials and support the recycled materials market, decreasing the quantity of solid waste requiring disposal. | Indirect impacts to solid waste management facilities/capacity (i.e., increased use of recycled materials would reduce the amount of waste materials that would otherwise need to be managed/disposed of) | Prior to issuance of RFP/RFB for each construction project | Once, upon approval of construction contract for each project | Confirmation that general contractor's bid includes usage of specified minimum percentage of recycled materials |

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| **SW-3**<br>**Monitoring Agency:**<br>**LAWA** | **Requirements for the Recycling of Construction and Demolition Waste.** LAWA will require that contractors recycle a specified minimum percentage of waste materials generated during demolition and construction. The percentage of waste materials required to be recycled will be specified in the construction bid documents. Waste materials to be recycled may include, but are not limited to, asphalt, concrete, drywall, steel, aluminum, ceramic tile, and architectural details. | Indirect impacts to solid waste management facilities/capacity (i.e., recycling of demolition/construction wastes would reduce the amount of waste materials that would otherwise need to be managed/disposed of) | Prior to issuance of RFP/RFB for each construction project | Once, upon approval of construction contract for each project | Confirmation that general contractor's bid includes specified minimum percentage of demolition/construction waste to be recycled |
| **Construction Impacts** | | | | | |
| **C-1**<br>**Monitoring Agency:**<br>**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 will periodically analyze traffic conditions on designated routes during construction to see whether there is a need to improve conditions through signage and other means.<br>This office may undertake a variety of duties, including but not limited to:<br>◆ Inform motorists about detours and congestion by use of static signs, changeable message signs, media announcements, airport website, etc.;<br>◆ Work with airport police and the Los Angeles | Traffic congestion and delays as they relate to the LAX Plan construction activities | Prior to issuance of any permits for first Master Plan project. Complete set of duties for this office will be established prior to issuance of any permit for a project that may significantly impact surface streets | Once, at establishment of LAWA's Construction Coordination Office | Establishment of Ground Transportation/Construction Coordination Office; Notification regarding duties, business hours, telephone numbers via the Internet and print media to the public |

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| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
|---|---|---|---|---|---|
| | Police Department to enforce delivery times and routes;<br>◆ Establish staging areas;<br>◆ Coordinate with police and fire personnel regarding maintenance of emergency access and response times;<br>◆ Coordinate roadway projects of Caltrans, City of Los Angeles, and other jurisdictions with those of the airport construction projects;<br>◆ Monitor and coordinate deliveries;<br>◆ Establish detour routes;<br>◆ Work with residential and commercial neighbors to address their concerns regarding construction activity; and<br>◆ Analyze traffic conditions to determine the need for additional traffic controls, lane restriping, signal modifications, etc. | | | | |
| **C-2**<br>**Monitoring Agency:**<br>**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 the LAX Plan construction activities | Prior to commencement of construction for each project | As required by arrival of new personnel | Contractor certification; signatures of orientation attendees |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
|---|---|---|---|---|---|
| **Design, Art, and Architecture Application/Aesthetics** | | | | | |
| **MM-DA-1**<br>**Monitoring Agency:**<br>**LAWA** | **Construction Fencing.** Construction fencing and pedestrian canopies shall be installed by LAWA to the degree feasible to ensure maximum screening of areas under construction along major public approach and perimeter roadways, including Sepulveda Boulevard, Century Boulevard, Westchester Parkway, Pershing Drive, and Imperial Highway west of Sepulveda Boulevard. Along Century Boulevard, Sepulveda Boulevard, and in other areas where the quality of public views are a high priority, provisions shall be made by LAWA for treatment of the fencing to reduce temporary visual impacts. | Avoidance of temporary view degradation | Prior to issuance of grading or building permits for each project along a major public approach or perimeter roadway | Once, prior to issuance of grading or building permits for each project along a major public approach or perimeter roadway | Installation of construction fencing and pedestrian canopies to the extent feasible |
| **Hazardous Materials** | | | | | |
| **HM-2**<br>**Monitoring Agency:**<br>**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 | Potential for encountering hazardous materials/waste during construction activities | Prior to initiation of construction of first Master Plan project | Once prior to construction of first Master Plan project | Preparation of Hazardous Materials/Wastes Management Plan |

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**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

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| | 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.<br><br>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 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. | | | | |

**Mitigation Monitoring and Reporting Program**
**LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project**

| Master Plan Commitments/ Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **Water Use** | | | | | |
| **W-1**<br>**Monitoring Agency:**<br>**LAWA** | **Maximize Use of Reclaimed Water.** To the extent feasible, LAWA will maximize the use of reclaimed water in Master Plan-related facilities and landscaping. The intent of this commitment is to maximize the use of reclaimed water as an offset for potable water use and to minimize the potential for increased water use resulting from implementation of the LAX Master Plan. This commitment will also facilitate achievement of the City of Los Angeles' goal of increased beneficial use of its reclaimed water resources. This commitment will be implemented by various means, such as installation and use of reclaimed water distribution piping for landscape irrigation. | Reduce demands for, and use of, potable water | Prior to approval of building plans for each project involving new or substantially renovated buildings that use water, and prior to approval of landscaping plans | Once, prior to approval of plans for affected project | Approval of plans for affected project |
| **W-2**<br>**Monitoring Agency:**<br>**LAWA** | **Enhance Existing Water Conservation Program.** LAWA will enhance the existing Street Frontage and Landscape Plan for LAX to ensure the ongoing use of water conservation practices at LAX facilities. The intent of this program, to minimize the potential for increased water use due to implementation of the LAX Master Plan program, is also in accordance with regional efforts to ensure adequate water supplies for the future. Features of the enhanced conservation program will include identification of current water conservation practices and an assessment of their effectiveness; identification of alternate future conservation practices; continuation of the practice of retrofitting and installing new low-flow toilets and other water-efficient fixtures in all LAX buildings, as | Avoid a substantial increase in water consumption due to the development of new facilities | Prior to the approval of building plans or landscaping plans for first Master Plan project involving water use (i.e., CTA Landside Terminal or LAX Northside development, whichever occurs first | Once, prior to approval of building plans or landscaping plans for first Master Plan project | Preparation of Water Conservation Program |

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| | remodeling takes place or new construction occurs; use of Best Management Practices for maintenance; use of water efficient vegetation for landscaping, where possible; and continuation of the use of fixed automatic irrigation for landscaping. | | | | |
| **Fire Protection** | | | | | |
| **FP-1**<br>**Monitoring Agency:**<br>**LAWA** | **LAFD Design Recommendations.** During the design phase prior to initiating construction of a Master Plan component, LAWA will work with LAFD to prepare plans that contain the appropriate design features applicable to that component, such as those recommended by LAFD, and listed below:<br>◆ *Emergency Access*. During Plot Plan development and the construction phase, LAWA will coordinate with LAFD to ensure that access points for off-airport LAFD personnel and apparatus are maintained and strategically located to support timely access. In addition, at least two different ingress/egress roads for each area, which will accommodate major fire apparatus and will provide for major evacuation during emergency situations, will be provided.<br>◆ *Fire Flow Requirements.* Proposed Master Plan development will include improvements, as needed, to ensure that adequate fire flow is provided to all new facilities. The fire flow requirements for individual Master Plan improvements will be determined in conjunction with LAFD and will meet, or exceed, fire flow | Avoidance of compromised fire prevention and protection | Prior to issuance of building permits or B-permits | Once, upon sign-off of plans for each project | LAFD sign-off on plans prior to issuance of building permits or prior to issuance of B-permit for street improvements |

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| | requirements in effect at the time.<br>◆ *Fire Hydrants.* Adequate off-site public and on-site private fire hydrants may be required, based on determination by the LAFD upon review of proposed plot plans.<br>◆ *Street Dimensions*. New development will conform to the standard street dimensions shown on the applicable City of Los Angeles Department of Public Works Standard Plan.<br>◆ *Road Turns.* Standard cut-corners will be used on all proposed road turns.<br>◆ *Private Roadway Access.* Private roadways that will be used for general access and fire lanes shall have at least 20 feet of vertical access. Private roadways will be built to City of Los Angeles standards to the satisfaction of the City Engineer and the LAFD.<br>◆ *Dead-End Streets.* Where fire lanes or access roads are provided, dead-end streets will terminate in a cul-de-sac or other approved turning area. No fire lane shall be greater than 700 feet in length unless secondary access is provided.<br>◆ *Fire Lanes*. All new fire lanes will be at least 20 feet wide. Where a fire lane must accommodate a LAFD aerial ladder apparatus or where a fire hydrant is installed, the fire lane will be at least 28 feet wide.<br>◆ *Building Setbacks.* New buildings will be constructed no greater than 150 feet from the edge of the roadways of improved streets, access roads, or designated fire lanes. | | | | |

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| | ◆ *Building Heights.* New buildings exceeding 28 feet in height may be required to provide additional LAFD access.<br>◆ *Construction/Demolition Access.* During demolition and construction activities, emergency access will remain unobstructed.<br>◆ *Aircraft Fire Protection Systems.* Effective fire protection systems will be provided to protect the areas beneath the wings and fuselage portions of large aircraft. This may be accomplished by incorporating foam-water deluge sprinkler systems with foam-producing and oscillating nozzle (per NFPA 409, aircraft hangars for design criteria). | | | | |
| **PS-1**<br>**Monitoring Agency:**<br>**LAWA** | **Fire and Police Facility Relocation Plan.** Prior to any demolition, construction, or circulation changes that would affect LAFD Fire Stations 51, 80, and 95, or on-airport police facilities, a Relocation Plan will be developed by LAWA through a cooperative process involving LAFD, LAWAPD, the LAPD LAX Detail, and other airport staff. The performance standards for the plan will ensure maintenance of required response times, response distances, fire flows, and a transition to new facilities such that fire and law enforcement services at LAX will not be significantly degraded. The plan will also address future facility needs, including details regarding space requirement, siting, and design. | Avoidance of compromised fire prevention and protection | Prior to any Master Plan activities affecting on-airport fire and police facilities | Once, upon completion of Fire and Police Facility Relocation Plan; as necessary during relocation process | Completion of Fire and Police Facility Relocation Plan |

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| **PS-2**<br>**Monitoring Agency:**<br>**LAWA** | **Fire and Police Facility Space and Siting Requirements.** During the early design phase for implementation of the Master Plan elements affecting on-airport fire and police facilities, LAWA and/or its contractors will consult with LAFD, LAWAPD, LAPD, and other agencies as appropriate, to evaluate and refine as necessary, program requirements for fire and police facilities. This coordination will ensure that final plans adequately support future facility needs, including space requirements, siting and design. | Avoidance of compromised fire prevention and protection | Prior to any Master Plan activities affecting on-airport police and fire facilities | On-going during early design phase | Approval of facility program requirements by involved agencies |
| **Law Enforcement** | | | | | |
| **LE-2**<br>**Monitoring Agency:**<br>**LAWA** | **Plan Review.** During the design phase of terminal and cargo facilities and other major airport development, the LAPD, LAWAPD, and other law enforcement agencies will be consulted to review plans so that, where possible, environmental contributors to criminal activity, such as poorly-lit areas, and unsafe design, are reduced. | Unsafe facility/architectural design | Prior to issuance of building permits for each Master Plan project | Once, prior to issuance of building permits for each project | Plan sign-off by LAWAPD and LAX Detail |

**Mitigation Monitoring and Reporting Program**
**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
|---|---|---|---|---|---|
| **Surface Transportation** | | | | | |
| **MM-ST (BWP)-1**<br>**Monitoring Agency:**<br>**LAWA** | **Trip Reduction Measures.** LAWA will implement the following trip reduction measures:<br>(a) Continue to promote and expand the FlyAway services in accordance with LAX Master Plan Mitigation Measure MM-AQ-3. It is anticipated that the continued expansion of the FlyAway service will promote a shift in mode-share away from the private vehicle mode which would reduce traffic volume using the CTA roadway system.<br>(b) Continue to promote the consolidation of shuttle services (e.g., hotel/motel, off-airport parking, rental cars) or programs to reduce trips associated with these modes. | Traffic congestion and delays along on-airport roadways during airport operations | Ongoing programs | Annually | Status updates/confirmation in annual MMRP progress report |
| **MM-ST (BWP)-2**<br>**Monitoring Agency:**<br>**LAWA** | **Improve the Intersection of Center Way and World Way South.** Widen World Way South approach on the east side of the roadway to provide an additional right turn lane. The resulting configuration would be a single left turn lane, one through-left turn lane, two through lanes, and two right turn lanes.<br>During the Future (2013) Without Project overall airport peak hour the intersection of Center Way and World Way South operates at a V/C of 0.978 which is LOS E. With an intersection operating at a LOS E condition, the volume to capacity ratio can be increased by 0.01 without generating an impact. This | Traffic congestion and delays at the intersection of Center Way and World Way South during airport operations | When traffic levels reach the conditions specified in the measure | (1) Prior to implementation of intersection improvements, this measure will be monitored annually to determine whether CTA average daily traffic volumes in the peak month (August) have | Confirmation that the subject intersection improvement has been completed |

**Mitigation Monitoring and Reporting Program**
**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | equates to an increase in the intersection's V/C ratio from 0.978 to 0.988, or approximately 1.1 percent (i.e., 0.988/0.978) in the critical movement traffic volume without triggering an impact. LAWA will monitor traffic conditions at this intersection to determine when an estimated impact has been "triggered" in accordance with the LOS thresholds described above. Specifically, LAWA will monitor future CTA average daily traffic volumes in August to determine when CTA average daily traffic volumes have increased by more than 1.1 percent relative to the Future (2013) Without Project average daily traffic volumes. In addition, LAWA will record turning movement volumes at this intersection annually during the airport's peak month (August). When the August average daily CTA volumes have increased by 1.1 percent as compared to the Future (2013) Without Project estimated volume, LAWA will complete a V/C analysis using the same intersection methodology described in the Bradley West Draft EIR (Section 4.1.3.7) to determine if an impact has occurred. The mitigation measure would be constructed once both (a) the CTA average daily traffic volumes are 1.1 percent greater than the Future (2013) Without Project and (b) the V/C for the intersection meets or exceeds 0.988. The intersection analysis would be subject to approval by LADOT regarding timing of the mitigation measure. | | | increased by more than 1.1 percent relative to the Future (2013) Without Project average daily traffic volumes, based on annual passenger activity reports. (2) Following implementation of intersection improvements, the monitoring frequency will be reduced to once, upon completion of subject intersection improvement | |

**Mitigation Monitoring and Reporting Program**
**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-ST (BWP)-3**<br>**Monitoring Agency:**<br>**LAWA** | **Widen World Way Across from TBIT.** Widen the arrivals-level outer roadway across from TBIT by changing the left-most lane that currently terminates at Center Way to a through/left lane and extending this lane to World Way South. | Traffic congestion and delays along on-airport roadways during airport operations | The subject widening shall occur in conjunction with the project-related construction at TBIT, which is anticipated to be completed in 2013 | Once, upon completion of subject roadway widening | Confirmation that the subject roadway widening has been completed |
| **MM-ST (BWP)-4**<br>**Monitoring Agency:**<br>**LAWA** | **Modify the Intersection of Airport Boulevard and Manchester Avenue (Intersection #9).** The eastbound approach to the Airport Boulevard and Manchester Avenue intersection shall be restriped to provide one left-turn lane, two through lanes, and a through/right lane. Three parking spaces on the south side of Manchester Avenue west of Belford Avenue and two parking spaces on the south side of Manchester Avenue east of Belford Avenue shall be restricted during the PM peak period. Alternatively, the westbound approach to the Airport Boulevard and Manchester Avenue intersection shall be restriped and the traffic signal modified to provide two left-turn lanes, two through lanes, and a right-turn lane. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 19.7 million annual passengers. | Traffic congestion and delays at the intersection of Airport Boulevard and Manchester Avenue during airport operations | If/when international passenger activity levels at TBIT increase to 19.7 million annual passengers | (1) Prior to implementation of the intersection improvements, this measure will be monitored annually to determine whether TBIT passenger activity levels have reached 19.7 MAP, based on annual passenger activity reports.<br>(2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to | Confirmation that the subject intersection improvement has been completed |

**Mitigation Monitoring and Reporting Program**
**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | | | | occurring just once, upon completion of the intersection improvement | |
| **MM-ST (BWP)-5**<br>**Monitoring Agency:**<br>**LAWA** | **Modify the Intersection of Arbor Vitae Street and Aviation Boulevard (Intersection #10).** The eastbound approach to the Arbor Vitae Street and Aviation Boulevard intersection shall be widened to provide one left-turn lane, two through lanes, and a right-turn lane. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles and City of Inglewood. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 20.7 million annual passengers. | Traffic congestion and delays at the intersection of Arbor Vitae Street and Aviation Boulevard during airport operations | If/when international passenger activity levels at TBIT increase to 20.7 million annual passengers | (1) Prior to implementation of the intersection improvement, this measure will be monitored annually to determine whether TBIT passenger activity levels have reached 20.7 MAP, based on annual passenger activity reports. (2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to occurring just once, upon completion of the intersection | Confirmation that the subject intersection improvement has been completed |

**Mitigation Monitoring and Reporting Program**
**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| | | | | improvement | |
| **MM-ST (BWP)-6**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Modify the Intersection of Imperial Highway and Sepulveda Boulevard (Intersection #71).** The northbound approach to the Imperial Highway and Sepulveda Boulevard intersection shall be restriped to provide one left-turn lane, three through lanes, and two right-turn lanes. While restriping this intersection as described above would mitigate this impact, an alternative would be to widen the east side of Sepulveda Boulevard south of Imperial Highway to provide one left-turn lane, three through lanes, and two right-turn lanes on the northbound approach. However, provided the right-of-way is available, the provision of additional travel lane area would require disruption of traffic flows, generation of construction-related air pollutant emissions and noise impacts, and therefore the restriping is recommended rather than the widening. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles, City of El Segundo, and Caltrans. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 19.7 million annual passengers. | Traffic congestion and delays at the intersection of Imperial Highway and Sepulveda Boulevard during airport operations | If/when international passenger activity levels at TBIT increase to 19.7 million annual passengers | (1) Prior to implementation of the intersection improvement, this measure will be monitored annually to determine whether TBIT passenger activity levels have reached 19.7 MAP, based on annual passenger activity reports.<br>(2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to occurring just once, upon completion of the intersection improvement | Confirmation that the subject intersection improvement has been completed |

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| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-ST (BWP)-7**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Modify the Intersection of La Cienega Boulevard and I-405 Ramps N/O Century Boulevard (Intersection #96).** The southbound approach to the La Cienega Boulevard and I-405 Ramps N/O Century Boulevard intersection shall be widened to provide two left-turn lanes and two through lanes. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles, City of Inglewood, and Caltrans. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 20.7 million annual passengers. | Traffic congestion and delays at the intersection of La Cienega Boulevard and I-405 Ramps N/O Century Boulevard during airport operations | If/when international passenger activity levels at TBIT increase to 20.7 million annual passengers | (1) Prior to implementation of the intersection improvement, this measure will be monitored annually to determine whether TBIT passenger activity levels have reached 20.7 MAP, based on annual passenger activity reports.<br>(2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to occurring just once, upon completion of the intersection improvement | Confirmation that the subject intersection improvement has been completed |
| **MM-ST (BWP)-8**<br><br>**Monitoring Agency:** | **Modify the Intersection of La Tijera Boulevard and Sepulveda Boulevard (Intersection #101).** The westbound approach to the La Tijera Boulevard and Sepulveda Boulevard intersection shall be restriped | Traffic congestion and delays at the intersection of La Tijera Boulevard and | If/when international passenger activity levels at TBIT | (1) Prior to implementation of the intersection improvement, this | Confirmation that the subject intersection improvement has been completed |

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**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **LAWA** | and the traffic signal modified to provide two left-turn lanes, one through lane, and a through/right lane. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 18.7 million annual passengers. | Sepulveda Boulevard during airport operations | increase to 18.7 million annual passengers | measure will be monitored annually to determine whether TBIT passenger activity levels have reached 18.7 MAP, based on annual passenger activity reports. (2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to occurring just once, upon completion of the intersection improvement | |

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**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-ST (BWP)-9**<br>**Monitoring Agency:**<br>**LAWA** | **Modify the Intersection of Sepulveda Boulevard and 76th/77th Street (Intersection #136).** The eastbound approach to the Sepulveda Boulevard and 76th/77th Street intersection shall be restriped to provide two left-turn lanes, a through/left-turn lane, and one right-turn lane. This mitigation measure will be implemented to the standards and satisfaction of the City of Los Angeles. Implementation of this measure shall occur if/when international passenger activity levels at TBIT increase to 19.7 million annual passengers. | Traffic congestion and delays at the intersection of Sepulveda Boulevard and 76th/77th Street during airport operations | If/when international passenger activity levels at TBIT increase to 19.7 million annual passengers | (1) Prior to implementation of the intersection improvement, this measure will be monitored annually to determine whether TBIT passenger activity levels have reached 19.7 MAP, based on annual passenger activity reports.<br>(2) Following implementation of the intersection improvement, the monitoring frequency will be reduced to occurring just once, upon completion of the intersection improvement | Confirmation that the subject intersection improvement has been completed |
| **MM-ST (BWP)-10**<br>**Monitoring Agency:** | **Modify the Intersection of Imperial Highway and Main Street (Intersection #68).** Modify the median island on the east leg of the intersection to provide a second left turn lane. The resulting westbound | Traffic congestion and delays at the intersection of Imperial Highway and Main | The preparation of intersection improvement plans, pursuit of | Once, upon completion of the subject intersection | Confirmation that the subject intersection improvement has been completed |

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| **LAWA** | configuration would be comprised of a dual left-turn lane and two through lanes. | Street due to peak construction traffic | necessary approvals, and scheduling for receipt of contractor estimates/bids shall commence immediately upon approval of the Bradley West Project | improvement | |
| **MM-ST (BWP)-11**<br>**Monitoring Agency:**<br>**LAWA** | **Modify the Intersection of Imperial Highway and Pershing Drive (Inter-section #69).** Widen the north side of the westbound approach of Imperial Highway to provide a second right-turn lane. The resulting westbound lane configuration would be comprised of one left turn lane, two through lanes, and two right turn lanes. | Traffic congestion and delays at the intersection of Imperial Highway and Pershing Drive due to peak construction traffic | The preparation of intersection improvement plans, pursuit of necessary approvals, and scheduling for receipt of contractor estimates/bids shall commence immediately upon approval of the Bradley West Project | Once, upon completion of the subject intersection improvement | Confirmation that the subject intersection improvement has been completed |
| **MM-ST (BWP)-12**<br>**Monitoring Agency:** | **Distribution of Contractor Employee Parking between the Northwest Construction Staging/Parking Area and the East Contractor Employee Parking Area or Southeast Construction Staging/Parking Area.** General parking for Bradley | Traffic congestion and delays at off-airport intersections during project construction | Prior to start of construction of the Bradley West Project | Once, prior to finalization of construction bid documents for activities that | Confirmation that construction bid documents for activities involving the subject parking areas |

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| **LAWA** | West Project contractor employees within the Northwest Construction Staging/Parking Area and within the East Contractor Employee Parking Area or Southeast Construction Staging/Parking Area shall be distributed such that neither the northwest area (i.e., Northwest Construction Staging/Parking Area) or the east/southeast area (i.e., East Contractor Employee Parking Area or Southeast Construction Staging/Parking Area) is assigned parking for more than 601 vehicles. Should the need for contractor employees' daily general parking exceed 601 vehicles in either of these areas (northwest area or east/southeast area), the additional increment of daily parking demand shall be assigned to the other area. | | | would use the subject contractor employee parking areas | include the parking limitations specified in the measure |

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| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **Historical/Architectural and Archaeological/Cultural Resources** | | | | | |
| **MM-HA (BWP)-1**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Conformance with LAX Master Plan Archaeological Treatment Plan.** Prior to initiation of grading and construction activities, LAWA will retain an on-site Cultural Resource Monitor (CRM), as defined in the LAX Master Plan MMRP ATP, who will determine if the proposed project area 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. The CRM will compare the known depth of redeposited fill or disturbance to the depth of planned grading activities, based on a review of construction plans. If the CRM determines that the proposed 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. | Potential to unexpectedly encounter and impact subsurface archaeological resources, including Native American remains, during grading and excavation associated with construction of the Bradley West Project | Prior to initiation of grading and/or excavation activities associated with the construction of the Bradley West Project | The extent and frequency of inspection shall be defined based on consultation with the qualified archaeologist if the Cultural Resource Monitor determines that the project area is subject to archaeological monitoring | Conformance with LAX Master Plan Archaeological Treatment Plan |

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**Bradley West Project-Specific Mitigation Measures**

| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **Paleontological Resources** | | | | | |
| **MM-PA (BWP)-1**<br>**Monitoring Agency:**<br>**LAWA** | **Conformance with LAX Master Plan Paleontological Management Treatment Plan.** 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. | Potential to unexpectedly encounter and impact subsurface paleontological resources during grading and excavation associated with construction of the Bradley West Project | Prior to initiation of grading and/or excavation activities associated with the construction of the Bradley West Project | The extent and frequency of inspection shall be defined based on procedures outlined in the PMTP if the professional paleontologist determines that the project area is subject to paleontological monitoring | Conformance with LAX Master Plan Paleontological Management Treatment Plan |
| **MM-PA (BWP)-2**<br>**Monitoring Agency:**<br>**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 to unexpectedly encounter and impact subsurface paleon-tological resources during grading and excavation associated with construction of the Bradley West Project | Prior to initiation of grading and/or excavation activities associated with the construction of the Bradley West Project | Once, prior to the initiation of grading and/or excavation activities | Completion of briefing of construction personnel on identification of fossils or fossilferous deposits and notification procedures in accordance with the PMTP |

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| **Biotic Communities** | | | | | |
| **MM-BC (BWP)-1**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Floral Resources: Southern Tarplant.** LAWA or its designee shall prepare a special status plant mitigation program for the southern tarplant. The loss of the southern tarplant individuals shall be mitigated through seed collection and seeding into a suitable mitigation site within undeveloped property owned by LAWA or at a suitable off-site location, determined based on habitat, soil type, moisture levels, and other relevant conditions. One suitable off-site location is the Three Sisters Reserve located on the Palos Verdes Peninsula.<br>A qualified Seed Collector shall monitor the tarplant phenology to determine the appropriate timing for seed collection. Tarplant seed shall be collected from all tarplants within the impact area, which shall be delineated in the field with lath and flagging by a qualified biologist. The biologist shall ensure that seed shall only be collected from plants that will be impacted by the Bradley West Project. Upon completion of seed collection, the seed collector shall clean the seeds to prepare for the seeding effort.<br>A mitigation plan shall be developed at a level of detail necessary for successful program implementation by a landscape contractor. The detailed program shall contain the following items:<br>◆ *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The plan shall specify the responsibilities and | Loss of southern tarplant individuals | Preparation of a special status plant mitigation program upon project approval and prior to initiation of construction of the Bradley West Project | As per special status plant mitigation program for southern tarplant ; Regular site visits (i.e., monthly, quarterly) for no more than 5 years or until germination, flowering and seed set of at least 300 individuals (100 percent of the original population size) | Preparation of special status plant mitigation program; periodic monitoring report, at least annually |

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| | qualifications of the personnel who will supervise and implement the mitigation plan, including LAWA, Technical Specialists, and Maintenance Personnel.<br>◆ *Site selection*. The site for the mitigation shall be determined in coordination with LAWA, and shall be located in a suitable area within the boundaries of LAX or at a suitable off-site location. The appropriate site shall consist of approximately 0.76 acre and shall have suitable hydrology, soils, and other factors necessary for the establishment of the southern tarplant. Such suitable sites exist within the boundaries of LAX, including but not limited to areas within LAX Northside and in the southwestern portion of the airport, west of the south airfield complex. If a site at LAX is selected, site selection will occur in consultation with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft.<br>◆ *Site preparation and planting implementation*. The plan shall include specifications for seed collection and storage and guidelines for on-site preparation. The guidelines shall contain specifications for (1) existing native species protection; (2) trash and weed removal; (3) soil treatments (e.g., imprinting and decompacting); (4) temporary irrigation installation as needed; (5) erosion control measures (e.g., rice or willow | | | | |

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| | wattles); and (6) seed application.<br>◆ *Schedule*. A schedule shall be developed, which includes planting, to occur in late fall and early winter (between October and January 30).<br>◆ *Maintenance plan/guidelines*. A three to five year maintenance plan shall include (1) weed control; (2) herbivory control; (3) trash removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement seeding, if necessary. Ten percent of the original seed collected shall be stored in the event it is needed for replacement seeding.<br>◆ *Monitoring plan*. The monitoring plan shall include the following success criteria:<br>− Germination, flowering and seed set of 60 percent of the original population size in year one;<br>− Germination, flowering and seed set of 80 percent of the original population size by year three;<br>− Germination, flowering and seed set of 100 percent of the original population size by year five.<br>If these success criteria are not met, or are unlikely to be met within the required time periods, remedial measures will be required. Such measures could include reseeding, transplanting container plants or selection of an alternative site if required.<br>This plan may include qualitative and quantitative monitoring. Qualitative monitoring includes site visits at regular intervals (i.e., monthly, quarterly, | | | | |

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| | etc.) to determine the overall general performance of the site and maintenance needs. Quantitative monitoring is conducted on an annual basis and includes data collection specific to the performance standards established in the monitoring plan.<br>◆ *Long-term preservation*. Long-term preservation of the site shall also be outlined in the conceptual mitigation plan to ensure that future development does not impact the mitigation site. | | | | |
| **MM-BC (BWP)-2**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Floral Resources: Lewis' Evening Primrose.** Prior to any work activities (i.e., vegetation clearing, invasive species removal and/or spraying, and sediment removal) on the project site, including construction staging areas, pre-construction focused surveys shall be conducted during the period of March through May by a qualified biologist to determine the presence or absence of Lewis' evening primrose. Known populations of this species shall be monitored to determine the best time to conduct the surveys. The surveys shall follow guidelines developed by the CNPS and the CDFG. If this species is not observed, no further mitigation shall be required. If this plant species is observed on-site, a qualified botanist and LAWA shall evaluate the number of individuals, their location and the type of impact that would occur to determine if the anticipated impact would result in a substantial adverse effect or substantial net reduction in the population, given the species' rarity and abundance. If impacts are deemed not significant, no additional measures are warranted. | Potential loss of Lewis' evening primrose individuals that would result in a substantial adverse effect or substantial net reduction in population | Prior to any work activities, pre-construction focused surveys during the period of March through May to determine the presence or absence of Lewis' evening primrose. If it is determined that a substantial net reduction in population would occur, preparation of a special status plant mitigation program prior to initiation of construction of the Bradley West | If required, as per special status plant mitigation program for Lewis' evening primrose; regular site visits (e.g., quarterly, annually) for no more than 5 years or until germination, flowering and seed set of at least an equal number of plants impacted | If required, preparation of special status plant mitigation program; periodic monitoring report, at least annually |

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| | If it is determined that a substantial net reduction in population would occur, LAWA or its designee shall prepare and implement a plan to compensate for the loss of individuals of the sensitive Lewis' evening primrose. 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 the boundaries of LAX or at a suitable off-site location. If a site at LAX is selected, site selection will occur in consultation with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft. Collected seed shall be broadcast (distributed) after the first wetting rain. 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 in the first year 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. | | Project | | |

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| **MM-BC (BWP)-3**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Conservation of Floral Resources: California Spineflower.** Prior to any work activities (i.e., vegetation clearing, invasive species removal and/or spraying, and sediment removal) on the project site, including construction staging areas, pre-construction focused surveys shall be conducted during the period of March through July by a qualified biologist to determine the presence or absence of California spineflower. Known populations of this species shall be monitored to determine the best time to conduct the surveys. The surveys shall follow guidelines developed by the CNPS and the CDFG. If this species is not observed, no further mitigation shall be required. If this plant species is observed on-site, a qualified botanist and LAWA shall evaluate the number of individuals, their location and the type of impact that would occur to determine if the anticipated impact would result in a substantial adverse effect or substantial net reduction in the population, given the species' rarity and abundance. If impacts are deemed not significant, no additional measures are warranted.<br><br>If impacts to California spineflower are found to be adverse, LAWA or its designee shall prepare and implement a plan to compensate for the loss of individuals of the sensitive California spineflower. 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 the boundaries of LAX or at a suitable off-site location. If a site at LAX is selected, | Potential loss of California spineflower individuals that would result in a substantial adverse effect or substantial net reduction in population | Prior to any work activities, pre-construction focused surveys during the period of March through July to determine the presence or absence of California spineflower. If it is determined that a substantial net reduction in population would occur, preparation of a special status plant mitigation program prior to initiation of construction of the Bradley West Project | If required, as per special status plant mitigation program for California Spineflower; regular site visits (e.g., quarterly, annually) for no more than 5 years or until germination, flowering and seed set of at least an equal number of plants impacted | If required, preparation of special status plant mitigation program; periodic monitoring report, at least annually |

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| | site selection will occur in consultation with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft. Collected seed shall be broadcast (distributed) after the first wetting rain. LAWA or its designee shall implement a monitoring plan to monitor the establishment of individuals of California spineflower for a period of not more than five years. Performance criteria shall include the establishment of an equal number of plants as that impacted in the first year 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. | | | | |
| **MM-BC (BWP)-4**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Faunal Resources: Burrowing Owl.** Prior to any work activities (i.e., vegetation clearing, invasive species removal and/or spraying, and sediment removal) within the Southeast Construction Staging/Parking Area (also known as the Continental City site), a survey for burrows by a qualified biologist will be conducted by walking through the suitable habitat within the site in accordance with CDFG-accepted protocols. If the site contains burrows that could be used by burrowing owls, four surveys will be conducted during the burrowing owl breeding season (April 15 through July | Potential loss of burrowing owl individuals | Prior to any work activities within the Southeast Construction Staging/Parking Area, a survey for burrows that could be used by burrowing owls and, if burrows are present, four additional surveys | If required, monthly removal of burrows between September and January every year during construction period. If nesting owls are identified during the four surveys, | If required, preparation of Habitat Restoration Plan including periodic monitoring report, at least annually. Removal of burrows annually, if present, until entire staging area is in use; reports submitted periodically, at least annually, during construction or |

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| | 15). If an active burrow is observed during the nesting season, disturbance of the owls would constitute a significant impact and the burrow will be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for burrowing owl normally occurs from February 1 through August 31. To protect any active burrow, the following restrictions are required between February 1 and August 31 (or until burrows are no longer active as determined by a qualified biologist): (1) clearing limits will be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying will be restricted within 200 feet of any occupied nest. Any encroachment into the 300/200 foot buffer area around the known nest will only be allowed if it is determined by a qualified biologist that the proposed activity will not disturb the nest occupants. These avoidance measures will be coordinated with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Management Plan."<br><br>If nesting individuals are observed, LAWA or its designee will develop and implement a habitat replacement plan to compensate for the loss of habitat associated with use of the site for construction staging and parking. The objective of the habitat replacement plan will be to replace the habitat value to be lost with equal or greater habitat value. The habitat replacement will occur at an off-site location to avoid | | between April 15 and July 15 followed by monthly removal of any burrows onsite between September and January until such time as the entire staging area is in active use | protection of active burrows between February 1 and August 31 | until entire staging area is in use |

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| | potential conflicts with aircraft activities at LAX. Off-site locations for habitat replacement may include Madrona Marsh Nature Center in Torrance, Three Sisters Reserve located on the Palos Verdes Peninsula, or another location deemed appropriate.<br><br>Whether or not any nesting burrowing owls are identified on-site, after the end of the nesting period (August 31), LAWA or its designee will remove all burrows from the site on a monthly basis between September and January. Removal may include physically collapsing the burrows or installing one-way doors in burrow entrances. Such maintenance will continue annually until such time as the entire staging area is in active use. | | | | |
| **MM-BC (BWP)-5**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Conservation of Faunal Resources: Loggerhead Shrike.** If construction is scheduled to occur during the nesting season for the loggerhead shrike (March 15 to August 15), vegetation that will be impacted by the proposed project shall be removed outside the nesting season if feasible. If this is not feasible, a qualified biologist shall inspect the shrubs/trees at least 14 days prior to construction activities to ensure that no nesting shrike are present. If a nest is present, construction avoidance measures shall include flagging of all active nests and a 300-foot wide buffer area around the active nests. These construction avoidance measures will be coordinated with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" | Potential loss of nesting loggerhead shrike individuals | If construction is scheduled to occur between March 15 and April 15, removal of vegetation outside the nesting season, if feasible. If not feasible, pre-construction surveys 14 days prior to construction | If nests are present, a Biological Monitor shall be present between March 15 and August 15 | Removal of vegetation between August 16 and March 14 prior to initiation of construction followed by a report of activities. Alternatively, if required, pre-construction surveys 14 days prior to construction occurring between March 15 and April 15. If required, establishment of construction avoidance measures and onsite monitoring between |

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| | and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft. In addition, a Biological Monitor shall be present to ensure the buffer area is not infringed upon and vegetation clearing within the designated 300-foot buffer only takes place from August 16 to March 14. | | | | March 15 and August 15 and written report documenting construction avoidance measures undertaken; reports submitted periodically, at least annually, during construction or until vegetation has been removed |
| **MM-BC (BWP)-6**<br><br>**Monitoring Agency:**<br><br>**LAWA** | **Conservation of Faunal Resources: San Diego Black-Tailed Jackrabbit.** Prior to the commencement of clearing operations or other activities involving significant soil disturbance at locations identified in Table 4.7-2 with suitable habitat, a survey shall be conducted to locate black-tailed jackrabbits within 100 feet of the outer extent of projected soil disturbance activities. The locations of any observed jackrabbits shall be clearly marked and identified on the construction plans. If this species is present, a monitoring biologist shall be on-site during any clearing to flush the jackrabbit from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. The monitoring biologist shall have authority to halt construction activities until individual jackrabbits can be removed from the construction impact areas to assure that the jackrabbit shall not be directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities on a timely basis. | Potential loss of San Diego black-tailed jackrabbit individuals | Prior to commencement of clearing operations or other activities involving significant soil disturbance within the Northwest Construction Staging/Parking Area, West Construction Staging Area, or Southeast Construction Staging/Parking Area | If species is present, a monitoring biologist shall be onsite prior to and during any brush-clearing and earth-moving activities | If required, onsite monitoring during brush-clearing and earth-moving activities and written documentation of field activities submitted periodically, at least annually, during construction or until all clearing and soil disturbance at identified locations is complete |

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| Bradley West Project-Specific Mitigation Measures | | Impact Being Addressed | Timing of Implementation | Monitoring Frequency | Actions Indicating Compliance |
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| **MM-BC (BWP)-7**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Floral Resources: Mature Tree Replacement.** LAWA or its designee shall compensate at a ratio of 2:1 for the loss of mature trees, which would occur as a result of implementation of Northwest Construction Staging/Parking Area. The species of newly planted replacement trees shall be local native tree species to the extent feasible. Each mitigation tree shall be at least a 15-gallon or larger specimen. The replacement will be implemented within the boundaries of LAX or at a suitable off-site location. It mitigation occurs within LAX boundaries, the replacement site and tree species will be determined in consultation with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft. | Potential loss of mature trees | Prior to removal of mature trees within the Northwest Construction Staging/Parking Area | If mitigation occurs within LAX boundaries, periodic site visits to ensure trees are established, at least annually | Replacement of trees, if required and monitoring report one year following planting |
| **MM-BC (BWP)-8**<br>**Monitoring Agency:**<br>**LAWA** | **Conservation of Faunal Resources: Nesting Birds/Raptors.** To comply with the Migratory Bird Treaty Act, for those areas of the project site that are not actively maintained and have a potential for nesting birds/raptors, if construction is scheduled to occur during the nesting season for birds/raptors (generally February 1 to June 30 for raptors and March 15 to August 15 for nesting birds), vegetation that will be impacted by the proposed project shall be removed outside the nesting season if feasible. If this is not feasible, then a qualified biologist shall inspect the shrubs/trees prior to project activities to ensure that no nesting birds/raptors are present. If the | Potential loss of nesting birds/raptors subject to the Migratory Bird Treaty Act | If construction occurs between February 1 and August 15, removal of vegetation outside the nesting season, if feasible. If not feasible, pre-construction surveys | If active nests are present and may be impacted, a Biological Monitor shall be present during those periods when construction activities will occur near active nest areas | If required, establishment of buffer zones and construction avoidance measures between February 1 and August 15 and written report documenting construction avoidance measures undertaken; reports submitted periodically, |

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| | biologist finds an active nest within the construction area and determines that the nest may be impacted, the biologist will delineate an appropriate buffer zone; the size of the buffer zone will depend on the species and the type of construction activity, and will be determined in consultation with CDFG. Only construction activities (if any) that have been approved by a Biological Monitor will take place within the buffer zone until the nest is vacated. The biologist shall serve as a construction monitor during those periods when construction activities shall occur near active nest areas to ensure that no inadvertent impacts on these nests shall occur. These construction avoidance measures will be coordinated with LAWA's USDA Wildlife Hazard Biologist and will be consistent with FAA Advisory Circular No. 150/5200-33 "Hazardous Wildlife Attractants on or Near Airports" and LAWA's "LAX Wildlife Hazard Mitigation Plan" to avoid increasing wildlife hazards to aircraft. | | | | at least annually, during construction or until vegetation is removed |
| **Endangered and Threatened Species of Flora and Fauna** | | | | | |
| **MM-ET (BWP)-1**<br>**Monitoring Agency:**<br>**LAWA** | **Mitigation for Riverside Fairy Shrimp.** If Riverside fairy shrimp are found to be located on-site, LAWA shall coordinate with FAA and USFWS to initiate consultation under the federal Endangered Species Act and prepare a Mitigation Plan in consultation with the USFWS. The plan shall provide mitigation for direct impacts to affected habitat through salvage and relocation of soil containing Riverside fairy shrimp. The receiver site of the soil and cysts shall be equal or | Potential loss of Riverside fairy shrimp individuals at Southeast Construction Staging/Parking Area | If required, preparation of Mitigation Plan for Riverside fairy shrimp prior to clearing or other construction activities within the Southeast | If required, monthly during the first year following relocation of cyst-bearing soils, quarterly in years 2-4, biannually in years 5, 7 and 9, | If required, preparation of Mitigation Plan for Riverside Fairy Shrimp; annual monitoring reports due to USFWS on September 1 of each specified monitoring year |

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| | greater in biological value, as determined by the USFWS.<br><br>Specific requirements of the Mitigation Plan shall be subject to the Section 7 consultation with USFWS, but generally will require that soils containing embedded cysts of the Riverside fairy shrimp be salvaged and translocated to created Riverside fairy shrimp habitat at a suitable site. One potential site is the Madrona Marsh Nature Center in Torrance, 20 miles south of LAX. Responsibility for habitat creation and maintenance of the created habitat may be transferred to a LAWA designee at any time with USFWS approval.<br><br>Soils containing embedded cysts of the Riverside fairy shrimp shall not be translocated to the created habitat until the habitat is established and has met certain success criteria specified during Section 7 consultation. Success criteria for the created habitat will likely include holding water for a minimum of 60 days, having less than 10 percent absolute cover exotic herbaceous species within the created habitat, having less than 20 percent absolute cover of exotic herbaceous species within 300 feet of the area from limits of the created habitat, removal of all non-herbaceous plant species within the created habitat and 300 feet from the created habitat annually, and providing suitable water quality for Riverside fairy shrimp. Duration of inundation, exotic species removal, and water quality analyses may be undertaken within the first year after habitat creation. The performance criteria for percent absolute cover of | | Construction Staging/Parking Area; Implementation per Mitigation Plan | annually in year 10 | |

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| | exotic herbaceous species within 300 feet of the area from limits of the created habitat may be redesignated by mutual agreement of FAA, LAWA, and USFWS.<br><br>Upon meeting success criteria and approval from the USFWS, soils containing embedded cysts of the Riverside fairy shrimp may be brought to the created habitat. LAWA shall make every effort to collect all cyst-bearing soils from the entire surface area of the occupied habitat, however it is expected that some small number of undetected individual cysts will remain in the soil. Soil containing the cysts shall be salvaged and translocated during the dry season to minimize damage to the cysts during transport. The soil shall be collected using a hand trowel, removed in chucks, and kept out of direct sunlight to ensure viability. Soil shall be stored in properly labeled boxes or bags with adequate ventilation. The soils shall then be deposited and spread out in small basins or pool-like areas of similar size without active mechanical compaction to minimize potential damage to the cysts. Any potential indirect environmental impacts resulting from habitat construction activities shall be compliant with best management practices and terms and conditions stipulated by the permitting agencies.<br><br>LAWA or its designee, in conjunction with the USFWS and a qualified wildlife biologist, shall also develop a program to monitor created habitat for the presence of Riverside fairy shrimp as described in the Mitigation Plan. LAWA shall be responsible for implementing a monitoring and reporting program to demonstrate successful achievement of the performance standards | | | | |

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| | to be determined in consultation with USFWS for off-site relocation over a 10-year period:<br>◆ Monthly during the first year, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Quarterly in the second, third, and fourth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Biannually in the fifth, seventh, and ninth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>◆ Annually in the tenth year, following relocation of soils containing embedded cysts of the Riverside fairy shrimp<br>LAWA shall provide the USFWS with annual monitoring reports as specified in the Mitigation Plan. The monitoring report, due on September 1 of each specified monitoring year, shall provide information regarding the implementation of habitat creation, restoration, and maintenance activities. The yearly report shall also discuss the effectiveness of the project as it pertains to the existing condition of the created habitat and Riverside fairy shrimp population. To measure the effectiveness of the created habitat, the FAA and LAWA shall work with the USFWS to develop long-term goals and objectives as part of their habitat creation plan. | | | | |

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| **Wetlands** | | | | | |
| **MM-ET-1**<br>**Monitoring Agency:**<br>**LAWA** | **Riverside Fairy Shrimp Habitat Restoration.** See text of mitigation measure under "LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project," above. | Impacts to wetlands or "waters of the U.S.", if any | See "LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project," above | See "LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project," above | See "LAX Master Plan Commitments and Mitigation Measures for the Bradley West Project," above |

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