

MITIGATION MONITORING PROGRAM

Introduction

The Mitigation Monitoring Program (MMP) has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a “reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” In addition, Section 15097(a) of the California Environmental Quality Act (CEQA) Guidelines requires that a public agency adopt a program for monitoring or reporting mitigation measures and project revisions, which it has required to mitigate or avoid significant environmental effects. This MMP has been prepared in compliance with the requirements of CEQA, Public Resources Code Section 21081.6, and Section 15097 of the State CEQA Guidelines.

The City of Los Angeles (City) is the Lead Agency for the Silver Lake Reservoir Complex Master Plan Project (proposed Project) and, therefore, is responsible for administering and implementing the MMP. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation. However, until mitigation measures have been completed, the Lead Agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the MMP.

Purpose

The purpose of the MMP is to do the following:

- Coordinate all mitigation monitoring activities.
- Manage the preparation, approval, and filing of monitoring or permit compliance records.
- Maintain records concerning the status of all approved mitigation measures and project design features (PDF)
- Provide quality control assurance of field monitoring personnel.
- Coordinate with other agencies regarding compliance with mitigation or permit requirements.
- Review and recommend acceptance and certification of implementation documentation.
- Act as a contact for interested parties or surrounding property owners who wish to register concerns regarding environmental issues; verifying any such circumstances; and developing any necessary corrective actions.

Organization

As shown in the following pages, each identified mitigation measure and PDF for the proposed Project is listed and categorized by environmental issue area, with accompanying discussion of:

- Time Frame for Implementation: When the measure will be implemented.
- Monitoring Period: Indicates when monitoring for compliance with the measure will occur.
- Monitoring Agency: The agency to which reports involving feasibility, compliance, implementation, and development are made.
- Verification of Compliance: The date that monitoring is complete to ensure compliance with the measure.

Monitoring Procedures

This MMP shall be enforced throughout all phases of the proposed Project. The City shall be responsible for implementing each project design feature and mitigation measure and shall be obligated to provide verification, as identified below, to the appropriate monitoring and enforcement agencies that each project design feature and mitigation measure has been implemented. The City shall maintain records demonstrating compliance with each project design feature and mitigation measure listed below.

All applicable construction-related mitigation measures and best management practices will be included in any bid specification released for construction of the proposed Project. Prior to the release of the bid specifications, construction plans and specifications will be provided to the City of Los Angeles Bureau of Engineering's (BOE) Environmental Management Group (EMG) for review and approval regarding environmental mitigation. Unless otherwise specified herein, the City will be responsible for taking all actions necessary to implement the mitigation measures according to the provided specifications and demonstrating that each action has been successfully completed. The City, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor. This MMP for the proposed Project will be in place through design, construction, and operation. The City will be responsible for administering the MMP, ensuring that all parties comply with its provisions. The City may delegate monitoring responsibilities to staff, consultants, or contractors. The construction contractor shall submit an Environmental Compliance Plan for BOE Construction Management and BOE EMG approval prior to the beginning of ground-disturbing construction activities. The Environmental Compliance Plan will document how the contractor intends to comply with all environmental measures applicable to the contract, including application of BMPs. BOE Construction Management will also ensure that monitoring is documented in an Environmental Compliance Report and that deficiencies are promptly corrected. A designated environmental monitor with BOE Construction Management will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems. The City will monitor compliance with operational mitigation measures.

Changes to Mitigation Measures

Under CEQA, mitigation measures may be modified or deleted if the relevant decision-maker approves such action, gives a legitimate reason for making the change, and supports those reasons with substantial evidence, including an appropriate subsequent CEQA document. Any substantive change to the MMP shall be documented in writing. Modifications to the mitigation measures may be made by the BOE subject to one of the following findings and documented by evidence included in the record:

1. The measure included in the EIR and the MMP is no longer required because the significant environmental impact identified in the EIR has been found not to exist, or to occur at a level which makes the impact less than significant as a result of changes in the Project, changes in conditions of the environment, or other factors.

OR

2. The modified or substitute mitigation measure to be included in the MMP provides a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the EIR and the MMP.

AND

3. The modified or substitute mitigation measure/BMP does not have significant adverse effect on the environment in addition to or greater than those which were considered by the City in its decisions regarding the EIR and the Proposed Project.

AND

4. The modified or substitute mitigation measure is feasible, and the City, through measures included in the MMP or other established procedures, can assure its implementation.

Findings and related documentation supporting the findings involving modifications to mitigation measures shall be maintained in the Project file with the MMP and shall be made available to the public upon request.

Mitigation Monitoring Program

The following tables outline the proposed Project's Mitigation Monitoring Program. Table 1 includes mitigation measures required for the proposed Project, and Table 2 includes the PDFs associated with the proposed Project.

**TABLE 1
MITIGATION MONITORING PROGRAM – MITIGATION MEASURES**

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Mitigation Measures			
Aesthetic Resources			
AES-1: Shielded Fixtures. All new permanent exterior lighting shall be shielded and directed downward to avoid any light spill onto surrounding land uses including natural habitat areas, open water, residential areas, or into the night skies.	Prior to Construction Operations	City of Los Angeles	EMG Construction Inspector
AES-2: Non-Glare Materials. All new structures and buildings shall be designed to include non-glare exterior materials and coatings to minimize glare or reflection.	Prior to construction	City of Los Angeles	EMG
Air Quality			
<p>AIR-1: Haul Trucks and Construction Equipment. The City shall implement the following requirements for construction equipment operating at each Project site. These requirements shall be included in applicable bid documents and contractor(s) must demonstrate the ability to supply such equipment. Construction equipment shall include the following:</p> <ul style="list-style-type: none"> • The Project shall utilize off-road diesel-powered construction equipment that meets or exceeds the California Air Resources Board (CARB) and United States Environmental Protection Agency (USEPA) Tier 4 Final off-road emissions standards or equivalent for equipment rated at 50 horsepower (hp) or greater during Project construction where available within the Los Angeles region. Such equipment shall be outfitted with Best Available Control Technology (BACT) which means a CARB certified Level 3 Diesel Particulate Filter or equivalent. A copy of each unit's certified tier specification, BACT documentation, and CARB or Southern California Air Quality Management District (SCAQMD) operating permit at the time of mobilization of each applicable unit of equipment shall be provided. • Contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. All construction equipment must be properly tuned and maintained in accordance with the manufacturer's specifications. The contractor shall keep documentation on-site demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications. Tampering with construction equipment to increase horsepower or to defeat emission control devices shall be prohibited. • To import and export of on-site materials shall be scheduled to minimize empty return trips. • Use alternatively fueled (e.g., compressed natural gas, liquefied natural gas, propane), gasoline fueled, or electrified construction equipment in place of diesel-fueled equipment to the extent locally available. 	Prior to Construction During Construction	City of Los Angeles	EMG Construction Inspector

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Biological Resources			
<p>BIO-1: Pre-Construction Training. Prior to construction, a worker environmental awareness program (WEAP) training will be provided by a qualified biologist/ISA certified arborist to describe biological resources (including protected trees) that could be impacted and summarize the construction BMPs and project design features to be implemented. The WEAP will include all contractors (including grading, tree removal/pruning, and builders). The meeting shall include a focus on instructing the contractors on tree protection practices including information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that shall accomplish these tasks. All equipment operators and spotters, assistants, or those directing operators from the ground shall provide written acknowledgement of receiving training.</p>	<p>Prior to construction During construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>
<p>BIO-2: Preconstruction Surveys and Mitigation for Crotch's Bumble Bee and Monarch Butterfly. Prior to the start of construction activities, the City shall conduct pre-construction surveys for special-status invertebrates, Crotch's bumble bee and monarch butterfly, within 100 feet of construction activities near host plant communities (including nectar plants for Crotch's bumble bee and mature eucalyptus and pines trees for monarch butterfly). The pre-construction surveys shall be conducted 7 days prior to the start of construction activities. If any of these species are determined to be present within 100 feet of construction areas, construction best management practices (BMPs) will be implemented to avoid potential impacts to these species. BMPs shall include limiting construction vehicle speeds to 15 miles per hour when operating within 100 feet of the habitat areas, fencing habitat areas using temporary silt fencing, and cleaning up all trash and debris daily. Construction personnel will be instructed to not directly harm any special-status species on-site by halting activities until the species can move to off-site areas or contact a qualified biologist to move the species out of harm's way.</p>	<p>Prior to construction During Construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>
<p>BIO-3: Special-Status Bats. Prior to construction activities, bat surveys shall be conducted by a qualified bat biologist 7 days prior to the start of construction activities to determine if the special-status hoary bat, western mastiff bat, or western yellow bat could be impacted by proposed Project implementation. If special-status bat species are determined to be present within the proposed Project impact areas and if removal of roosting habitat (mature trees or palm trees) is required, a qualified biologist (a biologist with the ability to identify bat guano and assess habitat suitability) shall inspect the base of trees and palm skirts for guano prior to removal of skirted palm trees (i.e. palm trees with several layers of accumulated dead fronds).</p> <p>If bats are detected, tree removal shall avoid the bat maternity season (April 1 through August 31). If tree removal cannot avoid the maternity season, bat protection protocols shall be identified and implemented by a qualified bat biologist and approved by CDFW. The protocols may require installation of bat exclusionary devices, followed by up to four weeks of nightly monitoring by a qualified biologist to confirm bats are being excluded without harm until it is determined bats are no longer present. Construction of substitute bat habitat (i.e., bat boxes, artificial tree structures) should take place one month prior to the start of bat exclusion activities. Substitute bat habitat should be in the vicinity of bat-occupied mature trees or palm trees that a qualified biologist has been confirmed that bats are using. Bat boxes manufactured by vendors such as Bat Conservation and Management should be used. The one-month window prior to the start of bat exclusion activities will allow bats sufficient time to acclimate to a new potential roost location. The bat boxes shall be installed in an area that is close to suitable foraging habitat as determined</p>	<p>Prior to construction During Construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>by a qualified bat biologist. Bat boxes should be located on poles 10 to 20 feet off the ground. Additionally, the bat boxes will be oriented to the south or southwest, and the area chosen for the bat boxes must receive sufficient sunlight (at least 6 hours daily) to allow the bat boxes to reach an optimum internal temperature (approximately 80-100°F).</p> <p>At a minimum monitoring by qualified bat biologist should be required each month during construction and quarterly thereafter until it can be established that the bat box is being utilized. A determination needs to be made of what bat species are using the box. If the boxes are unsuccessful adaptive management measures should be developed in coordination with the CDFW.</p>			
<p>BIO-4: Tree Salvage and Replanting Plan. For impacts to trees protected under local policies and ordinances, the City shall prepare and implement a tree salvage and replanting plan. This salvage and replanting plan shall be prepared by a certified arborist familiar with the target species and in compliance with the specifications of the City Tree Ordinance or RAP Tree Policy (dependent on property location). The salvage and replanting plan shall include measures to salvage, replant, and monitor the new trees for a total of 10 years. The replanting plan will specify for planted trees to occur in the most naturalized habitat areas on-site (e.g., the Knoll) to maximize increasing habitat value and establishment success. The replanting plan shall also specify the appropriate spacing of planted trees to accommodate growth horizontally, vertically, and laterally below ground. The plan shall also specify recommended long-term monitoring, maintenance, and inspection until all planted trees survive to produce reproductive structures. Follow up inspections by the project arborist should be conducted after construction is completed for ten years. Preferably, follow up visits should be conducted quarterly during Years 1 and 2, biannually for Years 3 through 5, and annually for Years 6 through 10. More frequent monitoring and/or post-construction steps to improve any trees that are doing poorly should be carried out as recommended by the arborist. The plan will also include a measure to address if observations of stress or potential failure of planted trees occur (e.g., consulting with a certified arborist or tree specialist to provide recommendations so there is no net loss of trees). Any replacement trees that fail will be replaced at 1:1 with 15-gallon tree of like species.</p>	<p>Prior to Construction During construction Post construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
<p>BIO-5: Native Oak Trees. Native oak trees removed as a result of the Project with a trunk at DSH less than 12 inches shall be replaced at a 4:1 ratio, and if the diameter is between 12-24 inches at a 5:1 ratio, and greater than 24 inches at a 10:1 ratio.</p>	<p>Prior to Construction During construction Post construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
Cultural Resources			
<p>CR-1: Archaeological Monitoring. The City shall retain a qualified Archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards for professional archaeology (qualified Archaeologist) to carry out and ensure proper implementation of mitigation measures that address archaeological resources. The qualified Archaeologist shall oversee an archaeological monitor who shall be present during construction activities on the Project Site deemed by the qualified Archeologist to have the potential for encountering archeological resources, such as demolition, clearing/grubbing, drilling/auguring, grading, trenching, excavation, or other ground disturbing activity associated with the Project in areas of historic fill or previously undisturbed sediments, and in the vicinity of the Canal & Reservoir Ditch, within the South Valley, the East West Narrows, the Eucalyptus Grove, and areas of quaternary alluvium within the Knoll. The archeological monitor shall have the authority to direct the pace of construction equipment activity in areas of higher sensitivity and to temporarily divert, redirect or</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
halt ground disturbance activities to allow identification, evaluation, and potential recovery of archaeological resources in coordination with the qualified Archaeologist. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the qualified Archaeologist.			
CR-2: Archaeological Resources Sensitivity Training. Prior to commencement of construction activities, a Sensitivity Training shall be given by the qualified Archaeologist for construction personnel. The training shall focus on how to identify archaeological resources that may be encountered during construction activities, and the procedures to be followed in such an event. Within 5 days of completing the training, a list of those in attendance shall be provided by the qualified Archaeologist to the City.	Prior to construction During construction	City of Los Angeles	EMG Construction Inspector
CR-3: Discovery of Archaeological Resources. In the event that historic-period (e.g., bottles, foundations, early infrastructure, refuse dumps/privies, railroads, etc.) or prehistoric (e.g., hearths, burials, stone tools, shell and faunal bone remains, etc.) archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A 50-foot buffer shall be established by the Qualified Archaeologist around the find where construction activities shall not be allowed to continue. Work may continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by the Qualified Archaeologist. If a resource is determined by the Qualified Archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the Applicant and the City to develop a formal treatment plan that would serve to reduce impacts to the resources. If any prehistoric archaeological sites are encountered within the project area, consultation with consulting Native American parties will be conducted to apprise them of any such findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment and shall be explored to see if Project activities can avoid archaeological resources, such as: if the archaeological site can be deeded into a permanent conservation easement, if the resources can be capped with chemically stable soil or if the resource can be incorporated within open space. If, in coordination with the City, it is determined that preservation in place is not feasible, and in order to mitigate potential impacts to significant resources pursuant to Section 15064.5 of CEQA, data recovery is feasible. Appropriate treatment of the resource shall be developed by the Qualified Archaeologist in coordination with the City. A data recovery plan shall be implemented. A data recovery plan will make provision for adequately recovering the scientifically consequential information from and about the historical resources. and may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing, analysis, and commemoration in the form of signage or other public education and awareness. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.	Prior to construction During construction	City of Los Angeles	EMG Construction Inspector

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>CR-4: Archeological Monitoring Reports. At the conclusion of the archaeological monitoring, the qualified Archaeologist shall prepare a memorandum stating that the archaeological monitoring requirement of the mitigation measure has been fulfilled and summarize the results of any archaeological finds. The memorandum shall be submitted to the City. Following submittal of the memorandum, the qualified Archaeologist shall prepare a technical report that follows the format and content guidelines provided in California Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). The technical report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Appropriate California Department of Parks and Recreation Site Forms (Site Forms) shall also be prepared and provided in an appendix to the report. The technical report shall be prepared under the supervision of the qualified Archaeologist and submitted to the City within 150 days of completion of the monitoring. The final draft of the report shall be submitted to the South Central Coastal Information Center.</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
Geology, Soils, and Mineral Resources			
<p>PALEO-1: Construction Personnel Paleontological Resources Sensitivity Training. The City shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for Qualified Professional Paleontologist (Qualified Paleontologist) to carry out all mitigation related to paleontological resources. Prior to the start of ground-disturbing activities, the Qualified Paleontologist or their designee shall conduct construction worker paleontological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of paleontological resources that may be encountered, specific Project activities that would require paleontological monitoring, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The City shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
<p>PALEO-2: Paleontological Monitoring. Paleontological monitoring shall be conducted during ground-disturbing activities that produce visible spoils or cuts for project construction below 10-feet in previously undisturbed Quaternary alluvium or at any depth in the Miocene Monterey Formation. Monitoring shall be conducted by a qualified paleontological monitor (SVP, 2010) working under the direct supervision of the Qualified Paleontologist. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting sediment samples to wet or dry screen to test promising horizons for smaller fossil remains. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, the Qualified Paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely.</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
<p>PALEO-3: Paleontological Resource Discovery. If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock/sediment samples for initial processing and evaluation. If a fossil is</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). If the discovery is considered scientifically significant, the monitor will collect the fossil specimen(s) and associated data. For this Project, the SVP (2010) criteria of scientific significance will be used to make this determination in the field. In general, small unidentifiable vertebrate fossils will not be collected and only well-preserved or representative invertebrates or plants will be salvaged if avoidance is not feasible. Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at an accredited repository.</p> <p>If construction personnel discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 25-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described in this measure.</p>	<p>Prior to construction During construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>
Noise			
<p>NOISE-1: Equipment Controls. Noise and vibration construction equipment whose specific location on the Project site may be flexible (e.g., compressors and generators) shall be located away from the nearest off-site noise-sensitive land uses (at least 100 feet away) if sufficient distance on the implementing Project site is available. If 100 feet is not feasible, the equipment shall have natural and/or manmade barriers (e.g., berms, intervening construction trailers, etc.) or a noise enclosure around the specific equipment location that screens the receptor from propagation of noise from such equipment. The barrier and/or enclosure shall block the line-of-site from the construction equipment to any similarly elevated noise-sensitive receptors. Noise enclosures shall provide sufficient space and gate access as needed for the safe operation of equipment, construction activities, material deliveries, and equipment access by construction personnel. A noise enclosure is not required if it would pose a safety risk or unreasonably prevent access to the construction equipment as deemed by the on-site construction manager such as in areas that have limited equipment maneuvering space or access. The contractor shall provide documentation verifying compliance with this measure.</p>	<p>Prior to construction During construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>
<p>NOISE-2: Mobile Noise Barriers. For construction areas within 500 feet of a residential land use or other sensitive receptor, the contractor shall install temporary noise barriers between the active construction area and the off-site noise-sensitive receptors. The mobile noise barriers shall achieve sound level reductions of a minimum of 10 dBA between the Project construction sites and the sensitive receptor location. These temporary noise barriers shall be used to block the line-of-sight between the construction equipment and similarly elevated ground-level noise-sensitive receptors. The barriers should allow for repositioning in order to block the noise at the sensitive receptor as construction activities move along the Project boundary. A noise barrier is not required if it would pose a safety risk or unreasonably prevent access to the construction area as deemed by the on-site construction manager such as in areas that have limited equipment maneuvering</p>	<p>Prior to construction During construction</p>	City of Los Angeles	<p>EMG Construction Inspector</p>

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>space or access. Any barrier capable of a reduction greater than 10 dBA would require greater height and heavier noise insulation which would make mobility of the barrier infeasible and cause safety concerns related to barrier stability. Further, noise barriers would only be effective if they block the line-of-sight to sensitive receptors. The elevation of the surrounding area increases quickly and receptors within the vicinity of all identified sensitive receptors may still have a direct line-of-sight to the Project site and may not benefit from the use of a mobile noise barrier. The contractor shall provide documentation verifying compliance with this measure.</p>			
<p>NOISE-3: Construction Equipment Noise Shielding and Muffling Devices. Contractors shall ensure that all construction equipment, fixed or mobile, are equipped with properly operating and maintained noise shielding and muffling devices, consistent with manufacturers' standards. Prior to the issuance of demolition permits, certification of muffler installation shall be submitted to the applicable City for review. The construction contractor shall keep documentation on-site demonstrating that the equipment has been maintained in accordance with the manufacturers' specifications. The primary source of noise from construction equipment originates from the intake and exhaust portions of the engine cycle. According to FHWA, use of adequate mufflers systems can achieve reductions in noise levels of up to 10 dBA. The contractor shall use muffler systems that provide a minimum reduction of 10 dBA compared to the same equipment without an installed muffler system, reducing maximum construction noise levels. Contractors shall include the muffler requirements in contract specifications. The contractor shall also keep documentation on-site prepared by a noise consultant verifying compliance with this measure. Mufflers providing a noise reduction greater than 10 dBA would be technically infeasible or cost prohibitive given the current best available technologies. Further, mufflers are only effective on equipment with internal combustion engines and would not result in noise reductions for hand tools and other light-duty construction equipment. Therefore, NOISE-3 incorporates muffling devices to the maximum extent feasible.</p>	During construction	City of Los Angeles	Construction Inspector
<p>NOISE-4: Equipment Setbacks. The operation of construction equipment that generates high levels of vibration during any phase of construction occurring in the South Valley will be limited to setback distances from receptor V8. Receptor V8 includes the South Outlet Chlorination Station and Meter House. Setback distances apply in all directions surrounding the two buildings identified as V8. The following equipment shall be prohibited from operating within their respective setback distances:</p> <ul style="list-style-type: none"> • Large bulldozers shall be prohibited within 21 feet of receptor V8 • Loaded Trucks shall be prohibited within 19 feet of receptor V8 • Jackhammers shall be prohibited within 12 feet of receptor V8 • Small bulldozer shall be prohibited within 3 feet of receptor V8 <p>The contractor(s) shall require and document compliance with the minimum allowable setbacks in a construction vibration management plan, which shall be provided to the City prior to issuance of a demolition permit. The construction vibration management plan shall detail the types of equipment to be used during demolition, grading, and building construction, estimated vibration velocities, and distance to vibration receptor V8. Equipment and or alternative construction techniques to be used within the required setbacks for large bulldozers, loaded trucks, jackhammers, and small bulldozers shall be identified to ensure that vibration velocities will not exceed thresholds for potential structural damage.</p>	During construction	City of Los Angeles	Construction Inspector

Measures	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Tribal Cultural Resources			
<p>TCR-1: Native American Monitoring. Prior to the commencement of any ground disturbing activity at the project site, the City shall reach out to retain a Native American Monitor from both the Gabrieleno Band of Mission Indians-Kizh Nation and the Gabriellino Tongva Indians of California Tribal Council to provide a Native American monitor. Should neither Tribe be available to monitor during ground disturbance, work may continue but should Tribal Cultural Resources be encountered work will stop and both Tribes will be immediately notified. The Tribal monitors will only be present on-site during the construction phases that involve ground-disturbing activity in areas of quaternary alluvium within the Knoll, and will not be necessary in portions of the Knoll where the Puente Sandstone bedrock formation is present either at depth or at the surface. In addition, any ground disturbance required in the Eucalyptus Grove will be subject to Tribal monitoring. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing, or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the areas above. The on-site Tribal monitoring shall end when all ground-disturbing activities within the Knoll and the Eucalyptus Grove are completed, or when the Tribal representatives and Tribal Monitors have indicated that the project site has little to no potential for impacting Tribal Cultural Resources.,</p> <p>In the event that cultural resources of Native American origin are identified during construction, the City will coordinate with the qualified archaeologist (who meets the Secretary of the Interior's Professional Qualifications Standards), and both tribes that participated in consultation. If the City, in consultation with the Gabrieleno Band of Mission Indians-Kizh Nation and the Gabriellino Tongva Indians of California Tribal Council, determines that the resource is a Tribal Cultural Resource and thus significant under CEQA, a treatment plan shall be prepared and implemented in accordance with state guidelines and in consultation with the two Native American tribes. The treatment plan may include, but would not be limited to, avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon measure.</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>
Utilities and Service Systems			
<p>UTIL-1: Underground Utilities Search and Coordination. During design and prior to construction of Project facilities, the City shall conduct an underground utilities search and coordinate with all utility providers that operate in the same public rights-of-way impacted by construction activities. The City shall ensure that any temporary disruption in utility service caused by construction is minimized and that any affected parties are notified in advance.</p>	<p>Prior to construction During construction</p>	<p>City of Los Angeles</p>	<p>EMG Construction Inspector</p>

TABLE 2
MITIGATION MONITORING PROGRAM – PROJECT DESIGN FEATURES (PDFs)

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Biological Resources			
PDF-BIO-1: Ornamental Native Plants. If the proposed Project impacts native planted species within the Community Restoration Area, including Nevin's barberry, showy island snapdragon, and Coulter's matilija poppy, these species will be replanted onsite at a 1:1 ratio.	During construction	City of Los Angeles	Construction Inspector
PDF-BIO-2: Nesting Birds. If construction and vegetation removal is proposed between February 1 and August 31, a qualified biologist shall conduct a pre-construction survey for breeding and nesting birds and raptors 30 days prior to the start of construction, and then weekly, within 300-feet of the construction limits (or to the outer limits of the park area bounded by West Silver Lake Drive, Van Pelt Place, and Silver Lake Boulevard) to determine and map the location and extent of breeding birds that could be affected by the Project. Nesting bird surveys shall be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. Weekly surveys will take place with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work." If Project activities are delayed or suspended for more than 7 days after the last survey, surveys shall be repeated before work can resume. If an active nest is located, clearing and construction within appropriate buffers as determined by a qualified biological monitor, shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Due to the urbanized nature of the Project site, 300-feet for raptors and 150-feet for passerine birds could suffice for nesting bird buffers; however, it will be at the discretion of the qualified biologist. The buffer zone from the nest shall be established in the field with flagging and stakes. The qualified biologist shall retain the ability to increase buffers if needed to protect the nesting birds. Temporary fencing and signage shall be maintained for the duration of the Project. Construction personnel shall be instructed on the sensitivity of the area and be advised not to work, trespass, or engage in activities that would disturb nesting birds near or inside the buffer. On-site construction monitoring may also be required to ensure that no direct or indirect impacts occur to the active nest. Project activities may encroach into the buffer only at the discretion of the qualified biologist.	Prior to construction	City of Los Angeles	EMG
			During construction
PDF-BIO-3: Wildlife Fencing Signage. Interpretive signage will be installed near all wildlife friendly fencing to educate the public on wildlife and habitat sensitivity, and to encourage the public to not enter the restricted areas.	During construction	City of Los Angeles	Construction Inspector
PDF-BIO-4: Tree Protection Fencing. Establish tree protection fencing around the tree protection zone (TPZ). This area will be marked and avoided during all construction activities near the protected trees. This area will be kept clear of any construction material, debris, equipment, portable toilets, and foot or equipment traffic. Fencing will be installed prior to construction at the edge of the TPZ and remain in place until the entire project is complete. The fence will be chain link and a minimum of five feet in height.	During construction	City of Los Angeles	Construction Inspector

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>PDF-BIO-5: Grading/Trenching in TPZ. Grading/trenching will be restricted to areas outside the TPZ of the trees. All grubbing and clearing within the TPZ of a tree will be done manually. All soil removal will be done with hand tools, using an air spade or comparable equipment that will excavate soil without damaging the roots. Jack hammers will not be used to remove the soil. When a root is encountered, soil removal will be done without chipping, marring, or damaging the root bark in any way (damaging the root bark will open up the bark barrier so that disease can enter the tree, allowing rot to develop or fungus to take over, and can result in root death).</p>	During construction	City of Los Angeles	Construction Inspector
<p>PDF-BIO-6: Avoiding Root Damage. If tree roots must be cut, cuts will be less than one inch. If any roots over one inch in diameter are damaged, they will be clean-cut with a sharp and sterilized hand tool. Any roots permanently exposed from grading or scraping of topsoil will be cleanly cut just below the new soil grade.</p>	During construction	City of Los Angeles	Construction Inspector
<p>PDF-BIO-7: Soil Grade. Soil levels will be returned to the original grade, at which trees' roots were first established. Existing fill soil above that original grade will be removed to the extent possible; no additional fill soil will be placed over the original grade. If soil is filled back to the original grade, compaction will be done manually only (no equipment will be used). Compaction will be done in layers of three to six inches depending on soil structure. No gaps or pockets will remain in the soil.</p>	During construction	City of Los Angeles	Construction Inspector
<p>PDF-BIO-8: Irrigation. During construction, trees will only be watered under the guidance of the project arborist. Where it is needed, temporary irrigation (drip, leaking tube, or other) will be installed at intervals throughout the fenced protection zone to allow periodic deep watering during construction. The entire TPZ of the trees will be watered to a soil depth of four feet. This may require slow irrigation for 8-24 hours or more, or may require repeat waterings of shorter duration to promote saturation. The soil will be allowed to dry out completely before watering is repeated. The period between waterings may be a month or more. The project arborist will monitor the protected trees and provide recommendations on the effectiveness and duration of temporary irrigation.</p>	During construction	City of Los Angeles	Construction Inspector
<p>PDF-BIO-9: Landscaping Around Native Trees. Landscaping near protected trees will be drought-tolerant only unless trees are already accustomed to current landscape irrigation (to be confirmed by arborist). Irrigation overspray or runoff, as a result of lawn or ornamental irrigation, will be avoided in the TPZ of any protected tree with the noted exception above. All landscaping will be kept away from the trunk of any protected tree by a minimum of two feet.</p>	During construction	City of Los Angeles	Construction Inspector
<p>PDF-BIO-10: Tree Pest Inspection. Prior to tree removal, the City will have a certified arborist evaluate the trees to ensure they are free of pests.</p>	Prior to construction	City of Los Angeles	EMG
<p>PDF-BIO-11: Development of Pest Management Plan. If the certified arborist determines trees are impacted by infectious pests or diseases, the City will work with the certified arborist to prepare an Infectious Tree Disease Management Plan or develop a detailed, robust, enforceable, and feasible list of preventative measures. A plan/list will provide measures relevant for each tree pest or disease observed. To avoid the spread of infectious tree pests and diseases, infected trees should not be transported from the Project site without first being treated using best available management practices described Infectious Tree Disease Management Plan or the list of preventative measures.</p>	During construction	City of Los Angeles	Construction Inspector

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
PDF-BIO-12: Prevention of Pathogen Spread. All tree material, especially infected tree material, will be left on site, chipping the material for use as ground cover or mulch. Cleaning and disinfecting pruning and power tools before use will be completed to prevent introducing pathogens from known infested areas, and after use to prevent spread of pathogens to new areas.	During construction	City of Los Angeles	Construction Inspector
PDF-BIO-13: City Tree Ordinance. Any tree or shrub covered under the City Tree Ordinance which may be impacted by proposed Project construction, either through removal or encroachment within the TPZ, shall be replaced with nursery stock at a minimum 4:1 mitigation ratio of like species and 15-gallon in size. The City will work with a certified arborist and/or tree specialist to acquire appropriately sized, locally sourced trees from a local native plant nursery that implements Phytophthora/Clean Nursery Stock protocols. This may reduce the probability of introducing replacement trees contaminated with pests, diseases, and pathogens that could spread and infect native trees or habitats. A certified arborist and/or tree specialist should inspect and potentially quarantine nursery stock before bringing them into the Project site. Replacement tree plantings shall be located in areas protected by the habitat fencing to ensure their protection from the public.	Prior to construction During construction	City of Los Angeles	EMG Construction Inspector
PDF-BIO-14: RAP Tree Policy. Any tree or shrub covered under the RAP Tree Policy which may be impacted by the proposed Project construction, either through removal or encroachment within the TPZ, shall be replaced with nursery stock. The City at a minimum will be required to replace impacted trees at a 1:1 ratio for trunk diameter. The impacted trees' aggregate diameter, measured at DSH (multi-trunk trees are to be measured immediately below the lowest trunk) shall be replaced at an equal or greater rate of caliper of new trees. Each one-inch DSH of existing tree shall be replaced with a minimum one-inch caliper new tree.	During construction	City of Los Angeles	Construction Inspector
Cultural Resources			
PDF-CR-1: Archaeological Resource Discovery During Construction. If archaeological resources are discovered during excavation, grading, or construction activities, work shall cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with State and local guidelines, including those set forth in California PRC Section 21083.2. Personnel of the proposed Project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the Project site. The found deposits would be treated in accordance with State and local guidelines, including those set forth in California PRC Section 21083.2. If the discovery proves significant under CEQA (Section 15064.5f; PRC 21082), additional work such as testing or data recovery may be warranted. Should any Native American artifacts be encountered, additional consultation with NAHC-listed tribal groups should be conducted immediately. The process for contacting the tribal group and the timing of the contact should be addressed in the management plan.	During construction	City of Los Angeles	Construction Inspector

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>PDF-CR-2: Human Remains Discovery During Construction. If human remains are encountered unexpectedly during construction demolition and/or grading activities, Section 7050.5 of the California Health and Safety Code requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California PRC 5097.98. Remains suspected to be Native American are treated under CEQA at CCR 15064.5; PRC 5097.98 illustrates the process to be followed if remains are discovered. If human remains are discovered during excavation activities, the following procedure shall be observed:</p> <ul style="list-style-type: none"> • Stop immediately and contact the County Coroner: <ul style="list-style-type: none"> – 1104 N. Mission Road – Los Angeles, CA 90033 – 323-343-0512 (8 am to 5 pm Monday through Friday) or – 323-343-0714 (After hours, Saturday, Sunday, and Holidays) • If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC. • The NAHC will immediately notify the person it believes to be the MLD of the deceased Native American. • The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. • If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC. 	During construction	City of Los Angeles	Construction Inspector
Noise			
<p>PDF-NOISE-1: Haul Route. Prior to commencement of construction and operational maintenance activities, the City shall establish approved truck haul routes that avoid or minimize, to the extent feasible, unnecessary truck travel on local roadways through residential neighborhoods or adjacent to schools, and prioritize travel on collector and arterial streets.</p>	Prior to construction	City of Los Angeles	EMG
<p>PDF-NOISE-2: Construction Noticing and Community Liaison. Prior to commencement of construction activities, the City shall notify in writing adjacent residents and businesses along the Project route or worksite of proposed construction activities and the tentative schedule. The City shall require the construction contractor to designate a community liaison to respond to any issues and/or concerns related to construction activities, including any noise or vibration complaints. The community liaison shall maintain a log of communications and resolutions of issues or concerns and share the log with the City. Notices and construction signs will include a hotline and website address which will be updated quarterly and will include project-related information.</p>	Prior to construction	City of Los Angeles	EMG

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Public Services			
PDF-PS-1: Construction Security Measures. During construction, on-site security measures will include security lighting and a construction security fence with gated and locked entry around active construction areas.	During construction	City of Los Angeles	Construction Inspector
PDF-PS-2: Operational Security Measures. For Special Events that occur during the nighttime hours, security lighting will be provided.	Post construction	City of Los Angeles	EMG
Transportation			
PDF-TRA-1: Construction Traffic Management Plan. A Construction Traffic Management Plan will be prepared for the phases of the proposed Project that affect offsite components or require increased vehicle access consistent with the LADOT Construction Traffic Control Guidelines. This plan will address the planned Project construction phasing, sequence of construction activities, access, and circulation. In addition, the plan would include planned detour routes and BMPs, as well as coordination with and advance notice to local emergency providers.	During construction	City of Los Angeles	Construction Inspector
PDF-TRA-2: Construction Staging Plan. A construction staging plan shall be developed to reduce impacts related to noise, dust, traffic, and other health hazards. In addition, construction site BMPs (e.g., fencing, signs, and detours) shall be implemented to minimize hazards and prevent safety issues on the roadways and sidewalks surrounding the construction site.	During construction	City of Los Angeles	Construction Inspector
PDF-TRA-3: Construction Traffic. Construction-related trips shall be scheduled with increased frequency during off-peak hours to minimize impacts to commuters.	During construction	City of Los Angeles	Construction Inspector
PDF-TRA-4: Access to Parcels. It is not anticipated that access to existing parcels outside of the proposed Project impact areas would be impacted. However, if access to any existing parcels is removed during proposed construction activities, temporary access shall be provided, and/or new points of access shall be constructed.	During construction	City of Los Angeles	Construction Inspector
PDF-TRA-5: Site-Specific Traffic Control and Transit Plan for Large Events. Large event permittees shall develop a site-specific traffic control plan to provide information on parking and circulation and highlight transit options for event attendees to minimize congestion and vehicle miles traveled. Traffic control strategies for events will include inbound/outbound flex lanes and sheriff-controlled intersections. Traffic control plans will also identify nearby public parking facilities and identify passenger pick-up/drop-off locations. Permittees will be required to consider the cumulative traffic impacts of their event in relation to other events in the Project Area. The traffic control plans will also identify emergency services egress and access.	During construction	City of Los Angeles	Construction Inspector
PDF-TRA-6: Expand Public Transit Connections. The future site operator and relevant City departments (LADOT, Recreation and Parks Department, City Planning, etc.) shall work together to explore options for expanding public transit connections to the Project site to expand community access and reduce VMT.	Post construction	City of Los Angeles	EMG

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
Utilities and Service Systems			
PDF-UTIL-1: Drought-Tolerant Landscaping. The Project will use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses.	During construction	City of Los Angeles	Construction Inspector
PDF-UTIL-2: Water-Efficient Irrigation. Irrigation water would be pumped from the reservoirs to wetland habitat areas which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. Recycled water may also be used to irrigate ornamental planting, should such water supplies become available in the future.	Post construction	City of Los Angeles	EMG
PDF-UTIL-3: Decentralized Drainage Strategy. To prevent untreated surface runoff from entering the reservoir waters, proposed Project will implement decentralized drainage facilities to capture and filter or infiltrate stormwater runoff from the developed portions of the Project site.	During construction	City of Los Angeles	Construction Inspector
Wildfire			
PDF-WF-1: Fire Code. The Project Manager is responsible for compliance with applicable LAMC Fire Code Section 57 et seq. for construction sites on, adjacent to or in the immediate vicinity of a VHFHSZ as designated through LAMC Sections 57.4908.1.1 through 57.4908.1.3 and identified on City maintained databases such as NavigateLA and Zone information and Map Access System (ZIMAS) (which maintain digitalized LA General Plan and zoning maps).	During construction	City of Los Angeles	Construction Inspector
PDF-WF-2: Open Flame. Pursuant to LAMC Section 57.4908.5 open flame is prohibited upon any road, street, or fire road with the VHFHSZ.	During construction	City of Los Angeles	Construction Inspector
PDF-WF-3: Smoking Prohibited. No smoking is allowed where conditions are such as to make smoking a hazard and in spaces where flammable or combustible materials are stored or handled per Section 310.2 of the California Fire Code. Further, it shall be unlawful for any person to light, ignite or smoke any cigar, cigarette, tobacco in a pipe or other form of smoldering substance within the VHFHSZ compliant with LAMC Section 57.4908.6. The Section also prohibits open flame upon any road, street, or fire road within the VHFHSZ.	During construction	City of Los Angeles	Construction Inspector
PDF-WF-4: Signage. No person, except one authorized and acting within the scope of his official duties, shall remove, deface, mar, mutilate, or change the position of any sign, installed by the Chief pursuant to this article, designating "CLOSED AREA," "NO SMOKING," "NO OPEN FIRES," "RESTRICTED ENTRY," or other sign or device installed to give warning and to regulate persons' actions within the VHFHSZ as stated in Section 57.4908.9.1.	During construction	City of Los Angeles	Construction Inspector

PDF	Time Frame for Implementation	Monitoring Agency	Verification of Compliance
<p>PDF-WF-5: Brush Clearance Activities. Pursuant to Ordinance No. 185789 which added Sections 57.305.5.2, 57.305.5.2.1, 57.322.1.1.10 and 57.322.1.1.10.1, and amended Section 57.322.1.1 to Article 7, Chapter V of the LAMC, the applicable requirements for brush clearing activities in the VHFHSZ would apply including, but not limited to:</p> <ul style="list-style-type: none"> • Use of metal cutting blades for grass or brush clearance shall be limited to those which are nonferrous/non-sparking. • Brush clearance cannot be done on red flag days, when fire weather conditions are at their peak. • Individuals engaged in brush clearance operations shall not engage in any other activities during their actual clearance of grass or brush. • Individuals engaged in grass or brush clearance operations shall use an appropriate extinguishing agent immediately to extinguish a fire. • All fires, regardless of size, shall be reported immediately via the 9-1-1 system to the Fire Department. • An approved fire extinguisher, or a pressurized garden hose with attached nozzle shall be within 10 feet of any grass or brush clearance operation, to quickly extinguish a small fire before it burns out of control. • Where a gasoline container is present at the site of the grass or brush clearance operation, a minimum 4A 60 BC dry chemical fire extinguisher shall be within 10 feet of the brush clearance operation. • A cell phone capable of dialing 9-1-1 shall be charged and readily accessible to the grass or brush clearance operation. • A safety strap shall be used at all times for any tool or appliance with hot exhaust. Hot exhaust shall not come in contact with any brush, grass, flash fuels, or other flammable material. 	During construction	City of Los Angeles	Construction Inspector