LOS ANGELES COUNTY DRAINAGE AREA

SEPULVEDA DAM FLOOD CONTROL RESERVOIR

DONALD C. TILLMAN WATER RECLAMATION PLANT

Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI)

Prepared by
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With Technical Assistance by
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Department of Public Works,
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1 INTRODUCTION

The U.S. Army Corps of Engineers (Corps) has received a request from the City of Los Angeles Department of Public Works, Bureau of Sanitation (LASAN) for a long-term easement for the operation of the Donald C. Tillman Water Reclamation Plant (Plant) in the Sepulveda Dam Flood Control Reservoir (Sepulveda Dam Reservoir), in Los Angeles County, California. The Corps has prepared this Environmental Assessment (EA) to evaluate the potential impacts of the Proposed Action (issuance of a long-term easement), including the proponent's Preferred Alternative (Proposed Action), other reasonable alternatives, and the no action alternative.

This EA has been prepared pursuant to the National Environmental Policy Act (NEPA) (42 U.S. Code (U.S.C.) 4321, et seq.), Council on Environmental Quality (CEQ) regulations published at 40 Code of Federal Regulations (C.F.R.) Part 1500, et seq., other environmental laws, Executive Orders (EOs), and Corps' regulations and policies.

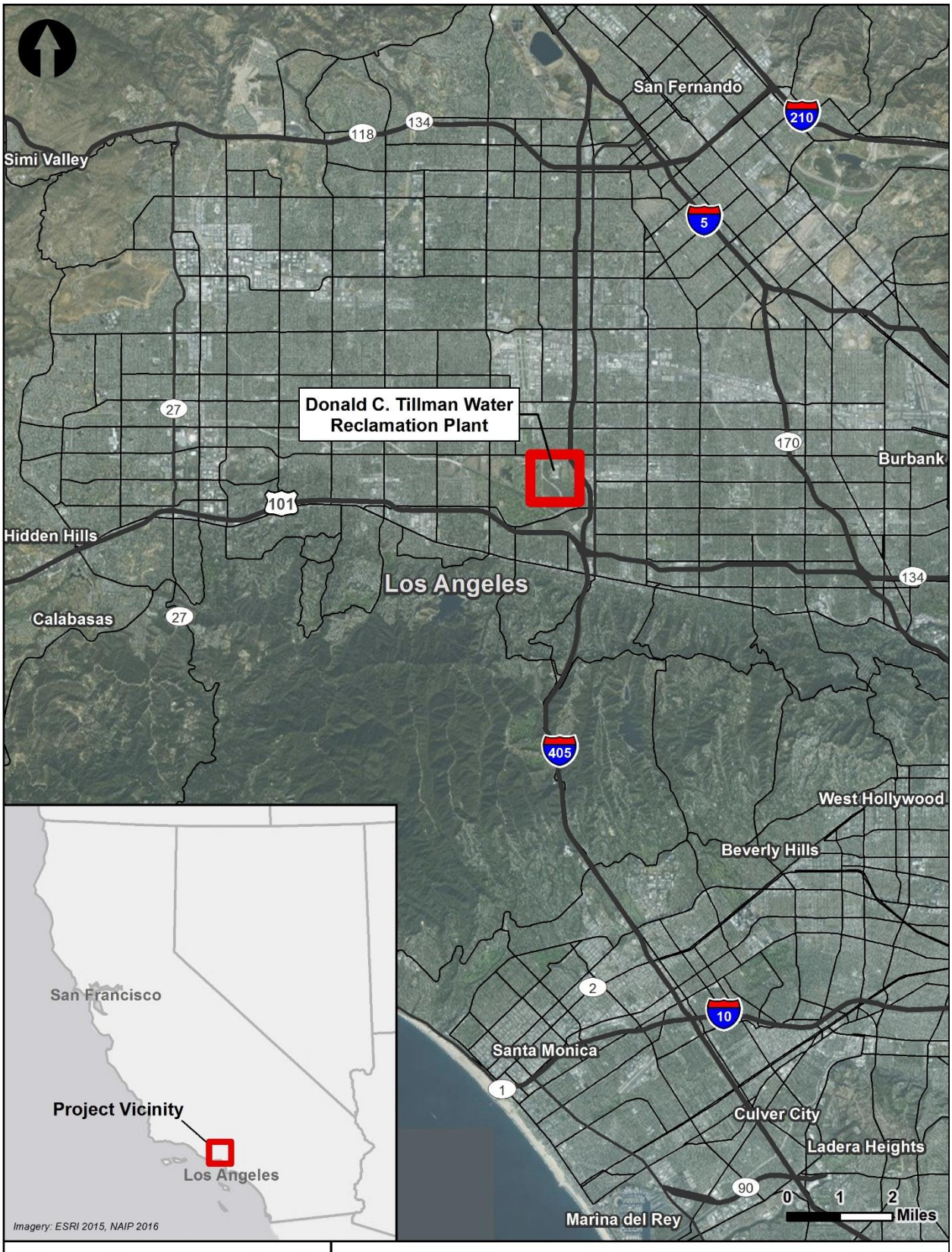
1.1 AREA OF PROPOSED ACTION

The Sepulveda Dam Reservoir is owned in fee by the Federal government with the Corps' Los Angeles District operating and managing the flood control project for the primary purpose of flood risk management. The Sepulveda Dam Reservoir is located approximately 17 miles northwest of downtown Los Angeles, in the San Fernando Valley community of Van Nuys, California, immediately northwest of the San Diego Freeway (Interstate 405 [I-405]) and the Ventura Freeway (U.S. Highway 101 [US-101]) interchange, as shown in Figures 1-1 and 1-2. The Plant is situated on approximately 95 acres leased from the Corps to the City of Los Angeles (City) in the northeastern corner of the Sepulveda Dam Reservoir.

1.2 AUTHORIZATION

The Sepulveda Dam Reservoir was authorized pursuant to two acts of Congress. The Flood Control Act (FCA) of 1936 (Public Law 74-738) provides for the construction of the dam and related flood risk management works for the protection of metropolitan Los Angeles County, California. The FCA of 1938 (Public Law 75-761), amended the FCA of 1936 by providing for the acquisition by the Federal government of land, easements, and right-of-way for dam and basin projects, channel improvements, and channel rectification for flood risk management. The Sepulveda Dam Reservoir is an important part of a comprehensive plan for flood risk management in Los Angeles County known as the Los Angeles County Drainage Area (LACDA).

Section 4 of the FCA of 1944 (Public Law 78-534), as codified in 16 U.S.C. 460(d), authorizes the Corps to grant leases of lands, including structures or facilities thereon, at water resources development projects for such periods, and upon such terms, and for such purposes as the Secretary of the Army may deem reasonable in the public interest. Pursuant to U.S.C. 2668, the Secretary of the Army is authorized to grant easements which will not be against the public interest. The Plant currently operates at the Sepulveda Dam Reservoir pursuant to a lease, DACW09-1-72-3, between the City of Los Angeles and the Federal government.



DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT

FIGURE 1-1 PROJECT LOCATION

DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT

Legend

Project Area

FIGURE 1-2 DONALD C. TILLMAN WATER RECLAMATION PLANT AND THE SEPULVEDA DAM RECREATION AREA

1.3 BACKGROUND

LASAN owns and operates the Plant facilities, which occupy land leased from the Federal government under a 50-year lease, DACW09-1-72-3 enacted in 1979. The current 50-year lease is due to expire in October 2019. The Plant is an integral component of the City's water treatment program, and was constructed to relieve pressure on the major sewer interceptors in the San Fernando Valley as well as the Hyperion Water Reclamation Plant (HWRP), located in southwest Los Angeles on Santa Monica Bay, adjacent to Dockweiler State Beach. The Plant treats up to 80 million gallons per day (mgd) of wastewater, which is of sufficient quality to be used as recycled water for irrigation of the Japanese Garden within the Plant grounds, for irrigation of the Woodley Lakes, Balboa, and Encino Municipal golf courses, and as source water for the Japanese Garden Lake, the Wildlife Lake, the Balboa Recreation Lake (Lake Balboa), and the Los Angeles River.

In compliance with U.S. Environmental Protection Agency (EPA) requirements that the Plant be protected from a 100-year flood, the City built a combination concrete flood wall/earthen dike around the Plant. To compensate for flood capacity displaced by the dike, the City removed 567,000 cubic yards (cy) of soil from fields adjacent to the Plant and the Plant effluent outfall pipeline was extended to below the Dam spillway into the Los Angeles River.

In discussions and communications between the Corps and LASAN pursuant to the potential granting of a new easement following the expiration of the existing lease in October 2019, the Corps has required LASAN to increase the height of the protective walls and dikes to meet the expected Standard Project Flood (SPF) elevation as set by the Corps per the operation of the Sepulveda Dam Reservoir. These conditions are a prerequisite to the Corps approving the Proposed Action.

In response to the Corps requirements, LASAN prepared the Plant *Water Reclamation Plant Levee Certification Report* (Tetra Tech 2013a). The report indicated that "Based on the certification evaluation criteria, the overall condition of the Tillman Flood Protection System was found to be excellent," and identified some height deficiencies pursuant to the SPF protection level (Tetra Tech 2013a). The recommended improvements and the engineering actions to achieve them are described in a pre-design report (Arcadis 2016).

1.4 PURPOSE AND NEED

LASAN's stated purpose is to continue operations of the Plant for the next 35 years to efficiently and reliably meet current and projected wastewater management goals including the full range of uses for which the Plant is authorized. These include an Advanced Water Purification Facility (AWPF) to provide water for groundwater replenishment, improvements to existing infrastructure, and improvements to provide the level of flood protection that is required at the SPF level.

As described by LASAN, the continued operation of the Plant is needed given the Plant's importance in treating and disposing of wastewater from the northern part of the City of Los Angeles. Any discontinuation of service would be disruptive to the LASAN's wastewater management goals, and, per the City, could pose a public health emergency. The Proposed

Action is needed to ensure that the Plant can provide projected future levels of uninterrupted wastewater conveyance and treatment services.

The Corps' purpose of and need for the Proposed Action is to evaluate LASAN's request and determine whether the request is in the interest of the public and the Corps, and whether the request would use or occupy Federal lands in a way that prioritizes compatibility with the Federal project (Sepulveda Dam Reservoir). The Corps will determine if the request would comply with its requirements to issue the easement, which are to ensure that the proposed dike elevation incorporates adequate risk and uncertainty considerations, and includes levee superiority to ensure that the dike will not fail if overtopped. The Corps will determine whether the request would infringe upon the Sepulveda Dam Reservoir operations and maintenance (O&M), flood fighting activities, or reduce flexibility of its use of the Sepulveda Dam Reservoir in the future. The Corps will also assess what lands are necessary for the requested use (i.e., the minimum footprint necessary). This determination is driven by the stated needs of LASAN based on the current and future capacity and demand for the Plant's services.

1.5 PROJECT OBJECTIVES

LASAN's stated objectives related to the purposes of the Proposed Action include:

- Utilizing the available underused treatment capacity of the Plant to provide recycled water for the advanced water purification process.
- Maintaining the existing levels of recycled water supplies for non-potable reuse customers and other beneficial uses.
- Maintaining the functional and logistical integrity of LASAN operations, both in terms of capacity and ability to continue operations during high water events.
- Preserving future potential expansion capability for recycled water treatment and Advanced Water Purification Processes.

2 LTERNATIVES CONSIDERED

2.1 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

This EA analyzes the likely effects of the Proposed Action by comparing a no action alternative with the Proposed Action Alternative and with other alternatives deemed to be reasonable, practicable, and feasible. The alternatives considered are limited to alternatives that would meet the purpose and need for the Proposed Action and the no action alternative for comparison purposes.

In addition to the no action alternative and the Proposed Action described below, three additional alternatives were considered but not brought forward for detailed assessment. These alternatives include:

Tillman Southwest Alternative. Under this alternative, the AWPF would be constructed in the southwest corner of the Plant, within the area protected by the existing flood control dike. The AWPF would consist of facilities that would provide additional levels of treatment of recycled water generated by the Plant to provide more highly purified water. The AWPF would be located in the southeast corner of the Plant complex, within the flood protection dike. The 1.75-acre site that would be needed for the AWPF is currently vacant. The AWPF would use purification processes and technologies and would include a primary microfiltration (MF)/reverse osmosis (RO) building, an advanced oxidation process (AOP) building and chemical storage areas, the ozonation/biologically activated carbon (BAC) facility, the MF feed pump station, chemical system facilities, and the substation. The MF/RO functions would require a total of about 64,000 square feet (ft^2), divided between two stories in a building approximately 54 feet (ft.) tall. Other AWPF functions would be housed in single-story structures, and a portion of the existing disinfection contact tanks would be converted for the ozonation and BAC processes. Additional equipment including pumps, filters, tanks, pipes, chemical storage, alarm systems, security surveillance, and distributed control systems for remote monitoring and controls would be required within or adjacent to the AWPF. This alternative would require that the Plant's maintenance and warehouse facilities be demolished to accommodate facilities associated with the AWPF, and the access road to the Japanese Garden would be modified, resulting in loss of several parking spaces. New, larger maintenance and warehouse facilities would be constructed in the northern portion of the Plant. The brine line would be longer than under the Proposed Alternative due to the AWPF's location in the southwestern part of the Plant, rather than the southeastern part of the Plant. In all other aspects, this alternative would be the same as the Proposed Action, which is described in Section 2.2.2.

This alternative was determined to be feasible and would meet most of the basic objectives of the proposed project. However, it would provide inadequate capability to expand the AWPF in the future because the site is physically constrained by adjacent uses, therefore it would not be able to provide projected future levels of uninterrupted wastewater conveyance and treatment services, would not ensure that the Plant would be able to efficiently and reliably meet current and projected wastewater management goals including the full range of uses for which the Plant is authorized, and would not fully meet the objective to preserve future potential expansion capabilities. It would not reduce any of the potential environmental impacts of the Proposed Action, and would increase operational impacts due to loss of capacity in the parking areas

adjacent to the Japanese Garden. Therefore, this alternative was not brought forward for detailed analysis.

Cricket Fields Alternative. Under this alternative, the AWPF would be constructed along the eastern side of the Plant, in the area occupied by the cricket fields, which is outside of the area protected by the flood control dike. The ozonation facility and other appurtenant facilities would also be located there. Because there would be more available space in this location, the AWPF would be built as a single-story building rather than a 2-story building.

This alternative was determined to be feasible and would meet most of the basic objectives of the proposed project, including preserving future expansion capabilities. However, it would not reduce any of the potential environmental impacts of the Proposed Action, would result in the loss of the cricket field recreational facilities, and would not be protected from floodwaters without constructing flood control dikes around the new facilities. This would require excavation of an equivalent flood storage volume elsewhere in Sepulveda Dam Reservoir, with likely additional environmental impacts to air quality, noise, traffic, recreation and visual resources associated with excavation and disposal of soils. Therefore, this alternative was not brought forward for detailed analysis.

Valley Generating Station Alternative. Under this alternative, the AWPF would be constructed as described for the Proposed Action, but portions of the facilities would be constructed at the Valley Generating Station (VGS) location. The VGS is an active City of Los Angeles Department of Water and Power (LADWP) electrical generating station approximately 6 miles northeast of the Plant in the Sun Valley community of the City of Los Angeles. It covers a 150-acre area bordered by Union Pacific Railroad, San Fernando Road, Tujunga Wash channel, the Hansen Spreading Grounds, Glenoaks Boulevard (Blvd.), and Sheldon Street. Components at VGS would include the primary AWPF and associated support facilities as described for the Proposed Action (see Section 2.2.2), including two single-story buildings of 32,000 ft^2 for MF and related functions, new maintenance, warehouse and administrative facilities, a new electrical power substation and new security fencing.

As noted in Section 1.4, LASAN's stated purpose is to continue operations of the Plant for the next 35 years to efficiently and reliably meet current and projected wastewater management goals including the full range of uses for which the Plant is authorized, and the continued operation of the Plant is needed given the Plant's importance in treating and disposing of wastewater from the northern part of the City of Los Angeles. Because the VGS alternative is operationally inefficient and decreases the potential for reliable treatment and disposal of wastewater from the northern part of the City of Los Angeles, it does not meet the purpose and need of the easement renewal or maximizing the efficient and reliable production of purified recycled water for groundwater replenishment to reduce the dependence of the Los Angeles area on imported water. As indicated in the Los Angeles Groundwater Replenishment Project Environmental Impact Report (EIR) prepared by LADWP in 2016 (LADWP 2016), this alternative would lead to greater impacts to city streets, traffic, socioeconomics, and air quality both during construction and operations than the Proposed Action. The VGS alternative would require construction of a 4-mile long recycled water pipeline and a 7-mile long brine line through city streets, as compared to the 0.6-mile brine discharge pipe under the Proposed Action at the Plant.

As indicated in the EIR, impacts to traffic during construction under the VGS alternative would be significant and unavoidable as this alternative would increase congestion and reduce level of service (LOS) in areas already operating at full capacity (LOS E) or above full capacity (LOS F) (LADWP 2016). Furthermore, due to extensive additional construction related to the 7-mile brine line, emissions of nitrogen oxides (NO_X) would exceed regional thresholds, resulting in a significant and unavoidable impact. Neither of these significant impacts would occur under the Proposed Action, as the amount of required excavation would be much less, and would occur primarily off of city streets.

Furthermore, there are no impacts of any type that would be offset to an appreciable degree by the VGS alternative, which would in fact lead to greater overall impacts during both construction and operations. Operational impacts would include the following:

- **Increased commuting** between the Plant and VGS by LASAN O&M staff to perform functions that would normally be completed only at one location. This effect would reduce operational efficiency since staff would be spending time driving rather than performing their usual functions, would slightly increase traffic between the two facilities, would increase emissions, and would increase the potential for traffic accidents.
- **Increased costs** associated with operating facilities at two locations. Operational redundancy would be required in the form of technicians and equipment. For example, suites of tasks that can be performed by a single technician or team of technicians at the Plant under the Proposed Action would need to be performed at both facilities under the VGS alternative which would require hiring additional staff. Whereas the primary infrastructure needed to support the AWPF such as treatment facilities, a power distribution network, stormwater management facilities, and other appurtenances are already in place at the Plant, these would need to be constructed at VGS under this alternative, resulting in wasteful spending and inefficient operations.
- **Reduced Advanced Water Purification Production**. Whereas at the Plant, an estimated 1.9 mgd from the Micro Filtration process can be recirculated back to the Plants' filtration system to increase recycled water purification production, at VGS this flow would immediately be discharged to Hyperion Treatment Plant once processed, since there is no advanced filtration facility at VGS. This reduction in the potential amount of advanced treated water for ground water replenishment is significant and does not meet LASAN's purpose and need.
- **Increased risk to public health and safety.** This effect would be the result of increased response time to emergencies such as spills, equipment failure, power outages, or other situations. Due to the Plant's function as a key component of the overall wastewater treatment system that includes HWRP and associated facilities, it is imperative that the response to emergencies related to the functions of the Plant be as rapid and effective as possible to avoid additional impacts elsewhere in the system. The logistics of responding to an emergency would be greatly complicated if some of the facilities were located at VGS, greatly increasing the potential for a costly system failure that would affect many thousands of people in the area by disrupting sanitary services.

2.2 ALTERNATIVES EVALUATED IN THIS EA

2.2.1 NO ACTION ALTERNATIVE

Under the no action alternative, a new easement would not be granted, resulting in no construction occurring within the lands currently leased to the Plant. The dikes would not be rehabilitated to provide the required level of flood protection, and the AWPF would not be constructed, as it would not be needed. The Niwa Road Sewer Project would also not be constructed, and the Inflow and Effluent Flow Meter Vaults would not be installed. Failure to construct or install these facilities would greatly restrict the Plant's future operational capacity, its ability to provide more highly purified water and operate at peak efficiency, or to replace outdated sewer facilities. The current lease would expire in 2019, at which time the Plant would cease to operate as a treatment facility for the region. The functional capacity of the Plant would need to be shifted to other regional facilities, which do not have the capacity to incorporate and treat the additional flows.

Upon expiration of the lease, the Plant would be decommissioned. The Plant and all associated infrastructure (including the floodwalls and dikes) would be removed and the land would be restored to pre-construction conditions. There would be no releases of effluent for Wildlife Lake or Lake Balboa and subsequent water for the Los Angeles River and the upstream hydraulic relief that the Plant provides to the collection system would be eliminated. As an integral part of LASAN's sewer system, elimination of the Plant's services would result in numerous sanitary sewer overflows, especially during wet weather. LASAN would need to develop alternatives such as building more sewers to meet needed capacity, with resulting environmental impacts.

2.2.2 PROPOSED ACTION

The Proposed Action includes three primary components; (1) the rehabilitation of the dikes to meet the requirements for the easement renewal agreement, (2) construction of the facilities and associated infrastructure for the AWPF, and (3) implementation of two minor facility improvement projects including an extension of the Plant's sewer line from Niwa Road to the Japanese Garden, and installation of four new 4-ft. diameter maintenance vaults for flow metering equipment (Figure 2-1).

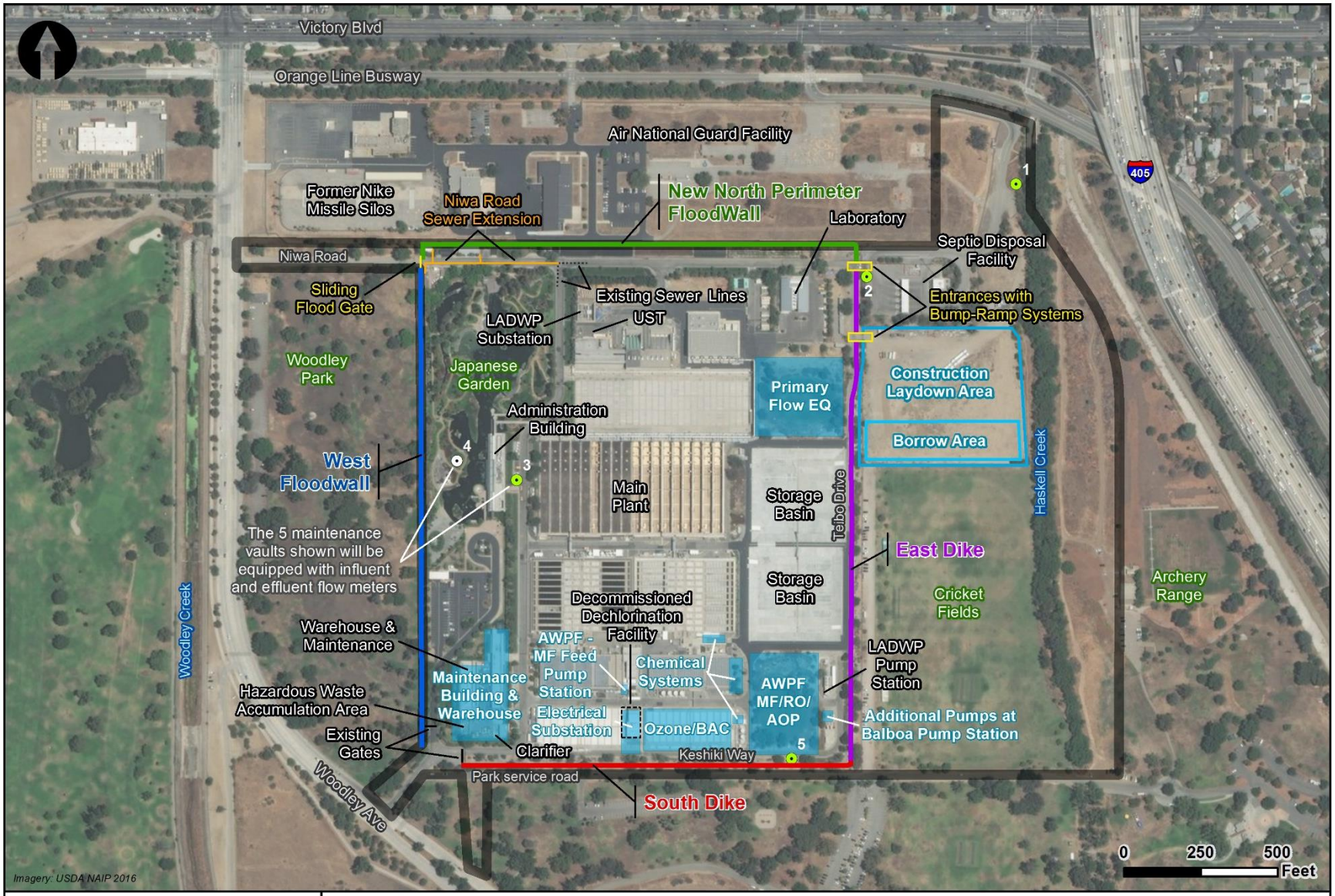
2.2.2.1 Dike Rehabilitation

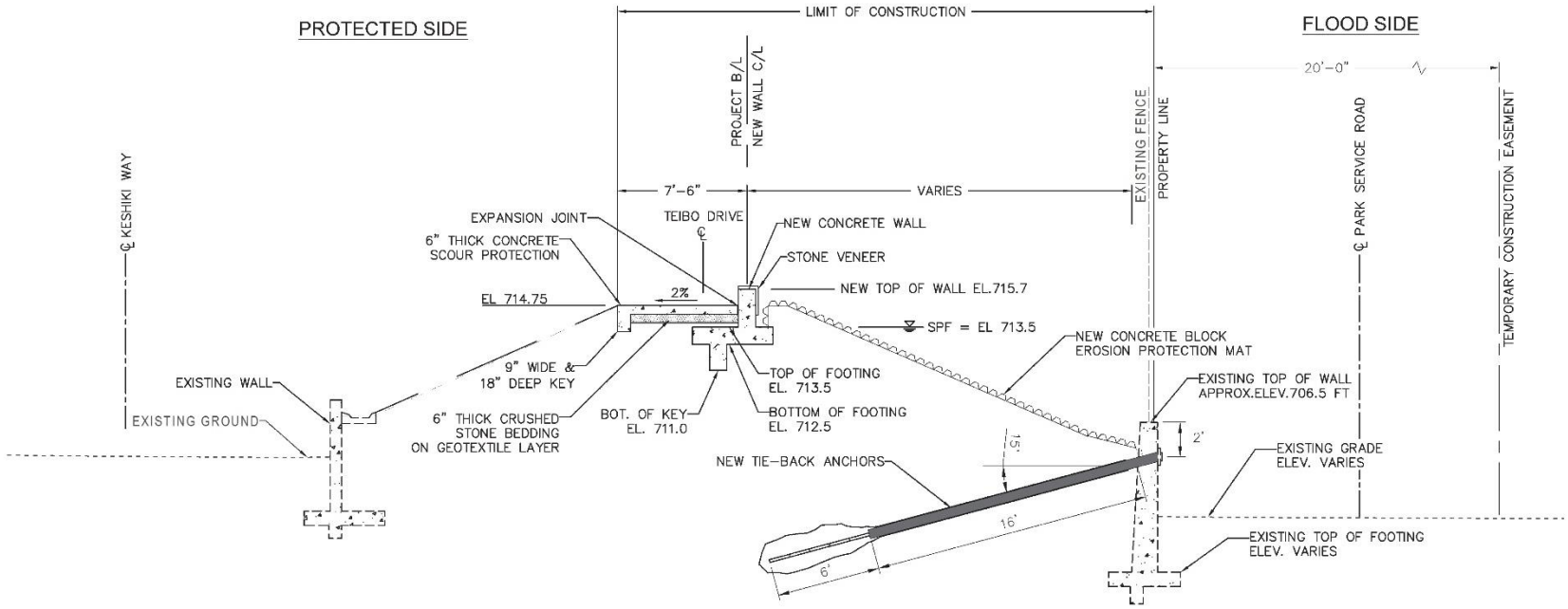
Based on the minimum design elevations, several dike rehabilitation measures were identified as necessary to meet the requirements for a new easement. These measures include:

- **West Flood Wall**. Measures required to increase the height of the West Flood Wall to meet the required design elevation include installing a wall height extension of 0.5 ft. to the western floodwall south of the Japanese Garden. Reconstructive measures required to increase the height of the West Flood Wall to the required design elevation include removal of a previous wall height extension along the dry sand/stone garden within the Japanese Garden and replacing with a new extension with the additional height needed.
- **South Dike**. Retrofit measures required to increase the height of the South Dike to the required design elevation include installation of a 1,295-ft long, 27-inch high parapet

concrete wall. Additional measures include armoring on the flood side to protect against wave action, removing the Teibo Drive pavement to allow for construction on the narrow crest, and installing concrete pavement on the protected side of the parapet wall to protect against wave overtopping scour and to provide a traversable surface. Also, to increase the stability of the existing flood side retaining walls, tie-back anchors would be required. Figure 2-2 shows a cross-section of the South Dike with the proposed retrofits.

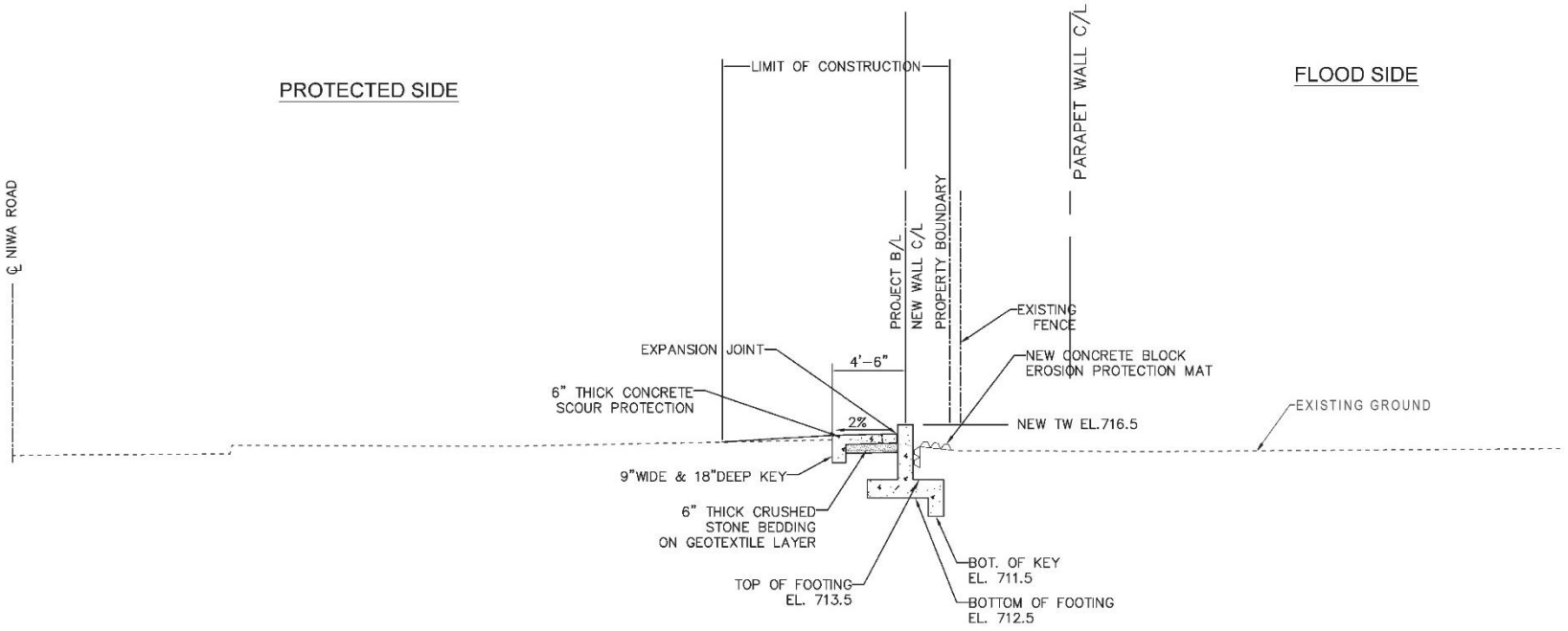
- **East Dike**. Retrofit measures required to increase the height of the East Dike to the required design elevation include installing a 1,610-ft long, 27-inch high parapet concrete wall on the dike crest. Additional required measures include placing armoring on the flood side to protect against wave action, removing a 300-ft long segment of Teibo Drive pavement to allow for construction on the narrow crest, installing 300 ft. of concrete pavement on the protected side of the parapet wall to protect against wave overtopping scour and to provide a traversable surface, and maintaining the existing 1301-ft long Teibo Drive road.
- **North Perimeter**. Retrofit measures required to increase the height of the north perimeter to the minimum design elevation include installing a 1,410-ft long, 27-inch high concrete wall and foundation. Additional measures include installing armoring on the flood side to protect against wave action and installing a concrete pad on the protected side of the wall to protect against wave overtopping scour. A cross-section of the proposed north perimeter wall is shown in Figure 2-3.
- **Entrance Roadways**. Retrofit measures for the Plant entrance roadways include the installation of sliding flood gates at the northwest entrance on Niwa Road and the installation of a bump-ramp system at the northeast entrance on Niwa Road and at the entrance to the area north of the cricket fields off of Teibo Drive. The bump-ramp system would be elevated to the required design elevation. The main entrance would retain its current configuration as its bump ramp system is of adequate height.


Victory Blvd
Orange Line Busway
Air National Guard Facility
Former Nike Missile Silos
Niwa Road Sewer Extension
New North Perimeter FloodWall
Laboratory
Septic Disposal Facility
Niwa Road
Sliding Flood Gate
Existing Sewer Lines
UST
LADWP Substation
Entrances with Bump-Ramp Systems
Woodley Park
Japanese Garden
Primary Flow EQ
Construction Laydown Area
Administration Building
Borrow Area
West Floodwall
Main Plant
Storage Basin
Teibo Drive
Haskell Creek
The 5 maintenance vaults shown will be equipped with influent and effluent flow meters
East Dike
Storage Basin
Archery Range
Cricket Fields
Woodley Creek
Decommissioned Dechlorination Facility
Warehouse & Maintenance
AWPF - MF Feed Pump Station
Chemical Systems
LADWP Pump Station
Maintenance Building & Warehouse
AWPF MF/RO/ AOP
Hazardous Waste Accumulation Area
Electrical Substation
Ozone/BAC
Additional Pumps at Balboa Pump Station
Existing Gates
Clarifier
Keshiki Way
Park service road
Woodley Ave
South Dike
Imagery: USDA NAIP 2016
0 250 500 Feet
DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT
Legend
Project Area
Proposed Facilities
Maintenance Vaults
Existing
New
FIGURE 2-1 SITE PLAN: PROPOSED PROJECT



Note: Dike shown in above cross-section is the South Dike at the Donald C. Tillman Water Reclamation Plant

DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT	**FIGURE 2-2 TYPICAL CROSS-SECTION OF DIKE WITH PARAPET WALL**



DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT

FIGURE 2-3 CROSS-SECTION OF NORTH PERIMETER WALL

Construction Methods. Dike rehabilitation construction would include site work and concrete work. Site work would include clearing and grubbing and would require use of excavators, front loaders, backhoes, mini-excavators, forklifts and 3 to 4 utility pickup trucks. Concrete work equipment would include a pump truck, multiple concrete mixing trucks, forklift, and 3-4 utility pickup trucks. Construction duration would last 12-18 months. On an average day, three or four crews totaling 15 to 20 workers would be present. Approximately 10 to 15 trucks would enter and exit the site each day on average.

Construction of the proposed dike improvements would involve standard construction methods. The work primarily consists of standard reinforced concrete wall construction involving panel wall formwork, and placing concrete by pump. Placing concrete by pump would alleviate access issues with developing the wall height extensions on the western wall and constructing the parapet wall on top of the existing dikes by being able to retain the security fencing and not needing to bring concrete trucks into the secured facility. The only specialized feature is the stone veneer which would be installed by a stone mason.

Construction access would be primarily from Woodley Avenue (Ave.) via the main entrance to the Plant and by Densmore Ave. off of Victory Blvd. Access along the south and east dikes would be made along the park service road and the roadway located between the Plant and the cricket fields. A site available for the contractor's staging and storage of materials is located north of the cricket fields.

Operations. An updated O&M manual has been developed that incorporates description of the Plant, the operation and maintenance responsibilities and procedures during flood and non-flood periods, and reporting requirements. This manual is being reviewed by the Corps, and will be officially approved and adopted by LASAN. It should be noted that no flood warning system is required for the current operation of the flood system as no manual elements are included. The O&M manual would be further updated to include these procedures. Following construction of dike rehabilitation measures, operation of the Plant would not substantially change. The existing O&M manual guidelines would be applied to ensure that operation and maintenance of new dike features was undertaken as necessary. Periodic maintenance would be undertaken, and where new features were present, additional maintenance would be necessary.

Flood Evacuation Plan. The Plant has a well-rehearsed Flood Evacuation Plan in place with procedures for communicating the potential for flood waters, evacuating visitors, contractors and employees, and shutting down Plant operations if necessary. The Plant conducts annual evacuation drills to ensure that personnel are up to date on these procedures.

2.2.2.2 Advanced Water Purification Facility

LADWP and LASAN are working jointly to plan, design, implement, and operate the AWPF. LADWP, as the supplier of potable water to the City, would maintain final use and control of the purified water produced at the Plant and provide funding to support the project's implementation and operations. LASAN would own and operate the AWPF and related facilities needed to produce the purified water.

A number of facilities would be constructed as part of the AWPF (see Figure 2-1), including a 2-story building; several single-story buildings or canopies; a maintenance warehouse; flow equalization tank; and ancillary facilities, which are shown in blue in Figure 2-1:

- **AWPF and Support Buildings**. The site for the AWPF is approximately 1.75 acres of undeveloped land in the southeast corner of the Plant complex, within the flood control dikes. This facility would provide for the processes and technologies that produce purified water. A total of 64,000 ft^2 of facility space would be needed, and due to the limited available square footage, the facility would be constructed as a 2-story building with a height of approximately 54 ft. Additional functions would be housed in single-story structures or under metal canopies. Associated infrastructure would also be constructed, such as pumps, filters, piping, chemical storage, alarm systems, security surveillance, and control systems.
- **Maintenance Warehouse**. The AWPF facilities would require an additional maintenance and facility support warehouse. This warehouse would be constructed in the southwest corner of the complex on a 0.75-acre piece of land that is partially used for materials storage. By relocating and consolidating the warehousing functions from the northern part of the Plant, all maintenance functions could be located at the site of the existing maintenance/warehouse complex in the southwest corner of the Plant (see Figure 2-1).
- **Flow Equalization Tank**. Flow equalization tanks would need to be expanded to provide adequate storage capacity. The new equalization tank would be located in the northeastern part of the complex (Figure 2-1), a 1.75-acre area of land that is currently vacant.
- **Brine Line**. A 2,700-ft, 24-inch diameter brine line would be installed to run east from the AWPF beneath the flood control dike, north along the road located west of the cricket fields and then easterly and northeasterly along the Plant access road. The brine line would exit the project area and tie into the Valley Outfall Relief Sewer at Victory Blvd., outside of the project area.
- **Ancillary Facilities**. An increase in electric power demand from the AWPF would require the construction of a new electrical substation, which would be located between the existing disinfection contact tanks. The site is 0.2 acre and currently occupied by a decommissioned dechlorination facility that would be demolished.
- **The Balboa Pump Station.** Located adjacent to the dike in the far southeast corner of the Plant, the Balboa Pump Station would also be expanded to support the pumping of the purified water produced at the AWPF to Hansen Spreading Grounds. The improvements at the pump station would involve adding three additional pumps at a previously constructed but unused connection to the East Valley Recycled Water Line (EVRWL). There would be no excavation associated with expansion of the Balboa Pump Station.

Construction Methods. Construction of the AWPF would take approximately 30 months commencing after completion of the maintenance building (see Section 2.2.2.6, below). Construction activities would require excavation and grading, foundation construction, building construction, equipment installation, equipment canopy construction, and ancillary support facility construction. It is anticipated that there would be about 50 construction personnel per day

onsite in the first 18 months, reducing incrementally over time, to about 20 per day in the last several months. Heavy equipment would be onsite throughout construction, including bulldozers, scrapers, excavators, backhoes, forklifts, loaders, compactors, and boom lifts. About 8 pieces of equipment would operate per day in the initial 18 months, incrementally reducing to about 2 pieces per day in the last months. Initially, 10 daily truck trips would be needed during grading, excavation and foundation work, but would reduce to about 4 daily trips for most of the construction period.

Warehouse construction is expected to take 12 months. Activities would include clearing the site, grading and excavation, foundation construction, and building construction. The anticipated number of construction personnel on site would vary from day to day, but would average 20 personnel. Construction would require the use of heavy equipment, such as bulldozers, compactors, excavators, backhoes, forklifts, loaders, and truck-mounted cranes. An estimated average of four pieces of equipment would operate per day during construction and there would be an average of approximately four daily truck trips per day, except during grading, excavation and foundation work, when approximately ten trips per day would be needed.

The maintenance building would take 12 months to construct. Activities would include demolition of the existing maintenance building and warehouse as needed for expansion, grading, excavation, foundation construction, building renovation, and new building construction. An estimated average of 20 personnel per day would be onsite. Heavy equipment used, number of heavy equipment pieces present, and truck trips would be the same as for warehouse construction above. During initial demolition, grading and excavation work, approximately 15 truck trips would be anticipated.

Flow equalization tank construction would take approximately 18 months. Activities would include excavation, construction of concrete floor and walls, and installation of piping and covers. Average number of personnel on site per day would be 18, and heavy equipment use and rate would be the same as described for the warehouse above. Approximately 48,000 cy of soil, concrete, and asphalt would need to be excavated. About 12,000 cy of soil would be reused onsite during project construction and the remaining 36,000 cy would be hauled off site for disposal. This would require an average of about 30 daily truck trips during the first 4 months of construction and would then drop down to about 8 truck trips per day.

Brine line construction would take about 9 months to complete. Installation would be through an open 5-ft. wide and 8-ft. deep trench construction. Excavated material would be used for backfill after the line was completed and 4,000 cy of soil would be hauled offsite. The trench would be paved over following completion. Approximately 10 personnel would be working on the line per day and six pieces of operating equipment would be present. Up to 4 trucks would be needed on an average construction day. Portions of the trench could be covered with metal plates as needed.

The upgrades to the Balboa Pump Station would take approximately 12 months to complete. Construction would consist of the installation of three pumps at existing connection points to the EVRWL. The number of construction personnel on site would vary from day to day, but a maximum of eight personnel per day is anticipated. Construction would require the operation of several pieces of heavy equipment, including a forklift, dump truck, truck-mounted crane and tractor, as well as hand-operated power tools, welding equipment, and a generator. An average of

two pieces of heavy equipment would operate per day. The pump station upgrade would occur within the existing pump station footprint in the southeast corner of the Plant property. Minor deliveries of equipment and materials would be necessary, requiring an average of one truck trip per day.

Operation. Following completion of the all components of the AWPF, it is estimated that 16 additional personnel would be needed to operate the new facilities.

2.2.2.3 Capital Improvement Projects

Over a 10-year term starting in 2018, LASAN is likely to implement additional projects needed for maintenance of the plant or to increase the capacity of the Plant and the quality of the water that it treats.
The majority of these are small pilot projects or projects associated with routine maintenance of the Plant facilities. The specifics of these projects are not yet determined, and are thus not included as part of the alternative, but their anticipated general future impacts are included in Section 6, Cumulative Impacts.

Two forthcoming capital improvement projects (CIPs) involving infrastructure upgrades are included in this EA, and are discussed below.

Niwa Road Sewer Installation. This project would extend the existing sewer within the Plant to provide sewer service to the Japanese Garden facilities, replacing the existing septic tank system. The sewer system would be installed along Niwa Road, north of the gardens, and extend to the restrooms located on the east side of the gardens. A trench approximately 200 yards long and 12 ft. deep would be constructed to tie into an existing force main found along Niwa Road. Approximately 250 cy of soil would be excavated and temporarily stockpiled alongside the trench during construction. An 8-inch pipe would be installed to connect the bathrooms. Most of the soil would be used to backfill the trench, and approximately 13 cy of soil would be disposed of offsite. The project is anticipated to take up to 9 months to construct.

Construction and operation of the Niwa Road Sewer would proceed as follows:

- **Niwa Road Sewer Construction.** Construction of the new sewer line to service the Japanese Garden would include the use of a backhoe, small excavator, dump truck, light service vehicles, and a forklift. A crew of 4-6 workers would be at the project site most days. The project would result in temporarily diminished width of Niwa Road, but this would only affect LASAN operations vehicles, and would not affect public uses. Niwa Road would be passable by service vehicles during the construction period.
- **Niwa Road Sewer Operations.** Once installed the Niwa Road Sewer extension would require almost no maintenance. The only maintenance requirements would occur if the sewer line plugged up or failed. Neither of these scenarios is considered likely to occur.

Installation of Inflow and Effluent Flow Meter Vaults. This component would involve installation of four new 4-ft. diameter maintenance vaults for flow metering equipment. For the four new maintenance vaults and one existing maintenance vault, power and signal

instrumentation would be integrated with the existing Plant distribution control system. The proposed locations of the new vaults and the existing vault are shown on Figure 2-1.

Construction of the maintenance vaults, installation of the flow meters, and subsequent operation of the equipment would proceed as follows:

- **Flow Meter Vaults Construction.** Construction of the four new maintenance vaults would include excavation of approximately 300 cy of soil, and installation of precast maintenance vaults that would be imported to the Plant. Soils would be hauled to a local landfill or recycling facility. A small concrete pad would be installed on top of the pads to allow for installation of metering instrumentation. The fifth vault is already found in the Japanese Garden area, and would only include installation of electrical equipment and instrumentation. Construction would require up to 20 truck trips and up to 120 worker trips over the 3-month construction period.
- **Flow Meter Vaults Operations.** New maintenance vaults and inflow and effluent flow meters, integrated into the instrumentation with the Plant's distributed control system would require occasional maintenance to calibrate and clean the instrumentation, replace electronic components, and check readings. Additional maintenance is not anticipated.

2.2.2.4 Pilot Projects

Plant staff occasionally implement small pilot projects to test or demonstrate the efficacy of a new type of equipment or procedure. These projects do not require construction or installation of permanent features. Pilot projects could include the temporary use of a small trailer to house containerized equipment and a technician, installation of temporary, above-ground piping, and submersible pipes. These types of projects would not be anticipated to result in any impacts to natural resources or human uses of the Plant. Should impacts for a future project be anticipated, a separate planning and environmental evaluation would be undertaken by the Corps at that time.

2.2.2.5 Future Expansion

Over the life of the easement, LASAN may find it necessary to expand their facilities to accommodate increased filtration demands. This expansion would occur as Phases 3, 4 and 5 of the Plant's Master Plan. Phase 3 would include installation of a filtration basin west of the eastern dike, and Phases 4 and 5 would be constructed in the area currently occupied by the cricket fields, east of the current facilities. These locations are shown on Figure 2-4. Because this expansion is only conceptual in nature, it is not evaluated in this EA. If LASAN develops more advanced plans to expand to this area, project-specific NEPA documentation will be prepared.

2.2.2.6 Proposed Schedule for the Proposed Action

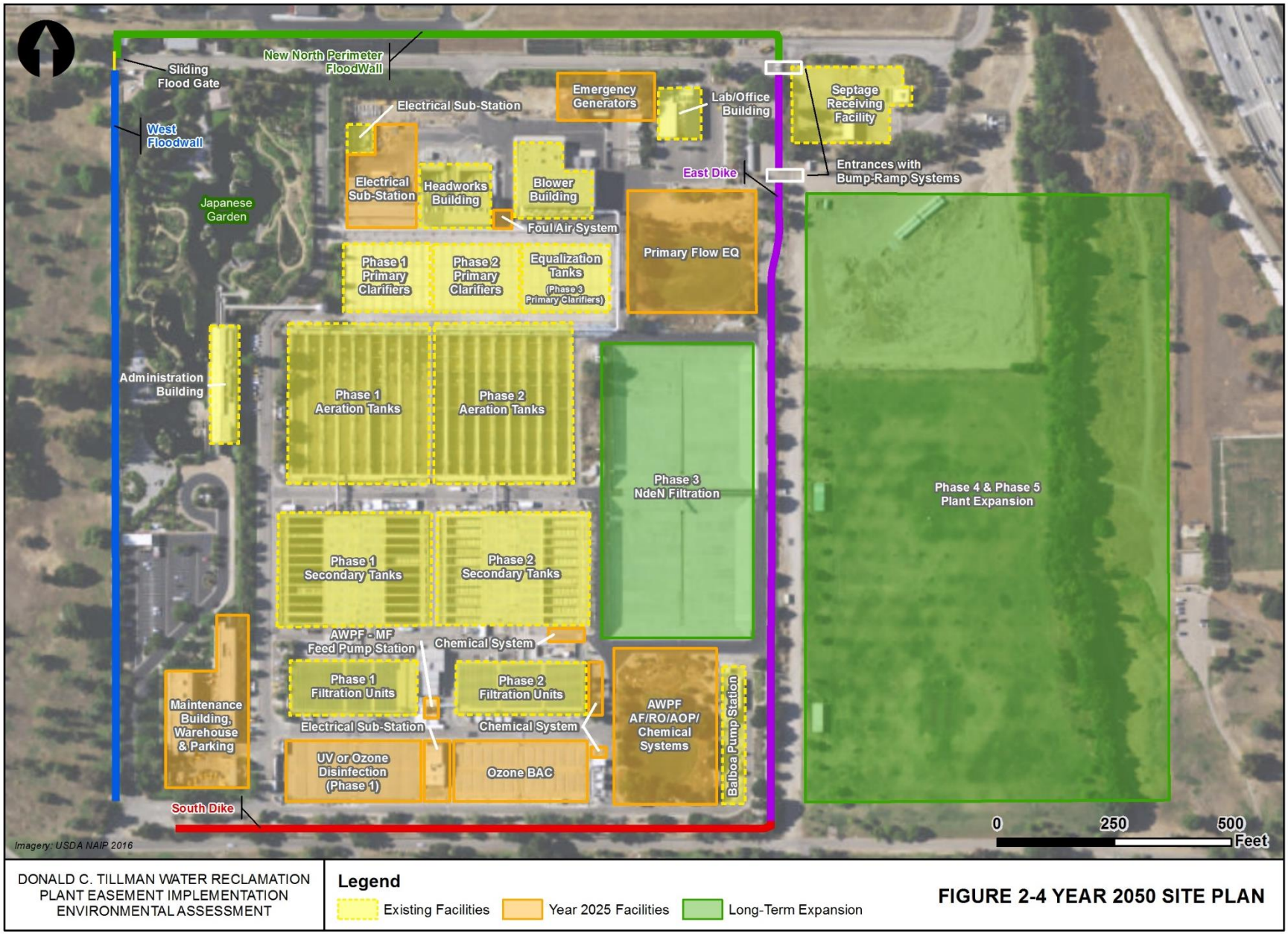
Dike rehabilitation and construction of the AWPF and associated structures is proposed to commence in the fourth quarter of 2018 and continue over 5 years. The flow meter vaults would be installed during late 2019 and early 2020, and the Niwa Road Project would occur in 2024. Phasing would allow overlap of construction of some components (Table 2-1). Construction activities would occur between 7:00 a.m. and 5:00 p.m., Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays.

Table 2-1 Construction Schedule for Proposed Action

Year	2018		2019				2020				2021				2022				2023				2024
Quarter	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Dike Rehabilitation																							
Flow Meter Vaults																							
Warehouse Building																							
Maintenance Building																							
Flow Equalization Tank																							
AWPF																							
Brine Line																							
Balboa Pump Station																							
Niwa Road Sewer Line																							

The construction schedule is planned in the following sequence:

- Clearing, grading, and needed excavation for laydown and construction areas.
- Dike height increase.
- Excavate and install the flow meter vaults.
- Construction of the warehouse.
- Demolition (as required), grading, excavation, and foundation construction for the maintenance buildings located in the southwest corner of the Plant, at the site of the existing maintenance/warehouse building.
- Renovations and new construction for the maintenance building.
- Excavation and construction of the new flow equalization tank.
- Clearing, grading, excavation, and foundation construction for the AWPF.
- Construction of the AWPF and ancillary support facilities, including the primary MF/RO building, the AOP building and chemical storage areas, the ozonation/BAC facility, the MF feed pump station, chemical system facilities, and the substation.
- Equipment installation for MF, RO, AOP, ozonation, and BAC.
- Installation of new piping within the Plant, including influent lines, product water pipeline, discharge line, and other piping modifications to accommodate the AWPF operations.
- Construction of the brine line.
- Expansion of the Balboa Pump Station.
- Integration with utility, fire alarm, security, and distributed control systems.
- Excavate and install the Niwa Road Sewer Line.


Sliding Flood Gate
New North Perimeter FloodWall
Electrical Sub-Station
Emergency Generators
Lab/Office Building
Septage Receiving Facility
West Floodwall
Electrical Sub-Station
Headworks Building
Blower Building
East Dike
Entrances with Bump-Ramp Systems
Japanese Garden
Foul Air System
Primary Flow EQ
Phase 1 Primary Clarifiers
Phase 2 Primary Clarifiers
Equalization Tanks
(Phase 3 Primary Clarifiers)
Administration Building
Phase 1 Aeration Tanks
Phase 2 Aeration Tanks
Phase 3 NdeN Filtration
Phase 4 & Phase 5 Plant Expansion
Phase 1 Secondary Tanks
Phase 2 Secondary Tanks
AWPF - MF Feed Pump Station
Chemical System
Phase 1 Filtration Units
Phase 2 Filtration Units
Maintenance Building, Warehouse & Parking
Electrical Sub-Station
Chemical System
AWPF AF/RO/AOP/ Chemical Systems
Balboa Pump Station
UV or Ozone Disinfection (Phase 1)
Ozone BAC
South Dike
Imagery: USDA NAIP 2016
0
250
500
Feet
DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT
Legend
Existing Facilities
Year 2025 Facilities
Long-Term Expansion
FIGURE 2-4 YEAR 2050 SITE PLAN

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

In the following section, the existing conditions for each resource category are described to the degree needed to assess the potential impacts from the Proposed Action. To assess the degree of significance of the potential impacts, a set of significance criteria has been developed. In some instances, significance thresholds in this report reflect criteria established for use in California Environmental Quality Act (CEQA) documents. CEQA is California's equivalent to NEPA, and provides a similar process to assess the potential environmental effects of a given project. One of the key differences between CEQA and NEPA, however, is that CEQA provides a set of significance criteria that are generally used in all CEQA documents, with modifications made for individual projects, while NEPA thresholds may vary depending on the specific resources and conditions. In this report, CEQA significance thresholds are used in instances where there are no established Federal thresholds, or where the Federal thresholds are less defined than the CEQA thresholds.

3.1 BIOLOGICAL RESOURCES

3.1.1 Baseline Conditions

The Sepulveda Dam Reservoir provides wetland, riparian, and upland habitats that are occupied by a variety of small mammals, reptiles, and birds. Although these habitat types are present in the Sepulveda Dam Reservoir, they are generally highly disturbed by recreational use, invasive species, maintenance, and flood risk management practices. Habitat around the Plant is primarily maintained open space characterized by grassy areas, large trees, and recreational fields. A narrow riparian zone is found along Haskell Creek on the eastern boundary of the leased property. The balance of the land surrounding the Plant is either developed for recreation or is comprised of upland (non-aquatic) habitat.

Vegetation. Vegetation communities found in and around the Plant are a mix of upland, riparian, altered or ruderal types, and maintained lawn and ornamentals. Remnants of cottonwood-willow riparian habitat exist along Haskell Creek, found in the drainage between the Plant's eastern dike and the Sepulveda Dam but there are no other native habitat types in the vicinity of the Plant. Ornamental tree/maintained lawn and ruderal land (disturbed, unmaintained land) are the dominant habitat types in and around the Plant.

Numerous trees are found in and around the Plant, including on the dikes. Tree species identified during dike inspections (Tetra Tech 2013a) are listed in Table 3-1:

Table 3-1. Tree Species in and around the Plant

Common Name	Scientific Name
Aleppo pine	*Pinus halepensis*
Arroyo willow	*Salix lasiolepsis**
Ash	*Fraxinus sp.*
Bottlebrush	*Callistemon viminalis*
California sycamore	*Platanus racemose**
Carolina cherry	*Prunus caroliniana*
Coast live oak	*Quercus agrifolia**
Crepe myrtle	*Lagerstroemia indica*
Fremont cottonwood	*Populus fremontii**
Japanese black pine	*Pinus thumbergii*

Common Name	Scientific Name
Jacaranda	*Jacaranda mimosifolia*
Mexican elderberry	*Sambucus mexicana*
Olive	*Olea Europea*
Sequoia	*Sequoia sempervirens*
Southern California black walnut	*Juglans californica**
Sweet gum	*Liquidambar styraciflua*
Valley oak	*Quercus lobata*
White alder	*Alnus rhombifolia*
Yew pine	*Podocarpus macrophyllus*

*Species protected under one or more local ordinances

Wetlands. The artificial ponds in the Japanese Garden are mapped by the National Wetlands Inventory (NWI) as PUBHx, which refers to Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated (USFWS 2017). Although this area is mapped as possible wetland by the NWI, these ponds would not be jurisdictional wetlands as they are not vegetated with emergent species and there is no surface connection to other wetland areas. Similarly, although Haskell Creek is mapped as "Riverine" wetlands, it may be considered jurisdictional waters of the U.S. but would not be considered jurisdictional wetlands as it does not fulfill the vegetation requirement for jurisdictional wetlands. Jurisdictional wetlands likely occur outside of the project area in the wildlife area and Balboa Lake. A jurisdictional wetland delineation has not been performed for the project area.

Wildlife. Based on available habitat and land uses, it is likely that mammal species found in the study area would include raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). Non-native species such as feral cats and dogs are also likely found in the Sepulveda Dam Reservoir. Gray fox (*Urocyon cinereoargenteus)* and coyotes (*Canus latrans*) may also use the area on occasion. Although bat species use the Sepulveda Dam Reservoir for roosting and breeding, or are year-round residents, there are no recorded instances of them roosting or breeding in the vicinity of the Plant.

Numerous bird species are likely to use the area for breeding or wintering, or are residents. During a survey of avian species in the summer of 2017, Corps biologists recorded 54 bird species in Sepulveda Basin, including hawks, owls, passerines, migratory songbirds and

waterfowl, and others. The complete list of species is attached as Appendix A. Species observed during the survey includes mourning dove (*Zenaida macroura*), great horned owl *(Bubo virginianus)*, Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), black phoebe (*Sayornis nigricans*), California quail *(Callipepla californica*), great blue heron *(Ardea herodias*), chestnut-backed chickadee (*Poecile rufescens*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), California towhee (*Melozone crissalis*), song sparrow (*Melospiza melodia*), Brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*), and yellow-breasted chat *(Icteria virens*). All of these bird species are protected under the Migratory Bird Treaty Act (MBTA).

Based on available habitat types and land uses, common reptile species such as San Diego alligator lizard (*Elgaria multicarinatus webbi*), western fence lizard (*Sceleporous occidentalis biseriatus*), side-blotched lizard (*Uta stansburiana*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), California striped racer (*Masticophis lateralis lateralis*), and San Diego gopher snake (*Pitouphis melanoleucus annectens*) are likely to occur in the vicinity of the Plant.

Threatened and Endangered Species. A list of federally-designated threatened, endangered, or candidate species that are known to occur in Los Angeles County, California was obtained from the U.S. Fish and Wildlife Service (USFWS) (USFWS 2015). In addition, a list of species that have been recorded as occurring within the Sepulveda Dam Reservoir and its vicinity has been obtained from the California Natural Diversity Database (CNDDB), maintained by the California Department of Fish and Wildlife (CDFW 2015).

According to the CNDDB, the least Bell's vireo *(Vireo bellii pusillus)* is the only special status species that has been directly observed within Sepulveda Dam Reservoir. During presence/absence surveys performed in summer of 2017, Corps biologists identified the least Bell's vireo as occurring in the riparian zone that borders Haskell Creek, approximately 1,500 feet south of the Plant (USACE 2017). Riparian habitat nearer to the Plant is of lower quality in terms of its suitability as vireo habitat, as trees are mature and there is little shrubby undergrowth, which is preferred by the vireo. The vireo is not known to occur within the Plant boundaries, and there is no viable habitat for it within the Plant. Other special status species reported within Los Angeles County by the USFWS (2015) have no recorded occurrences within the Sepulveda Dam Reservoir according to the CNDDB (CDFW 2015), and because there is insufficient habitat to support these species in or around the Plant, they are unlikely to occur and are not discussed further in this report.

Critical Habitat. According to USFWS's listed species and critical habitat mapper (USFWS 2015), there is no critical habitat within the project area.

3.1.2 Significance Thresholds

A significant impact to biological resources would occur under any of the following circumstances:

- Take of any federally-designated listed or candidate species, either through direct harm or habitat modification,
- Disturbance of nests or breeding habitat of any bird species protected under the MBTA during the breeding season, or

- Loss of wetlands or other protected habitat types.

3.1.3 Environmental Consequences

3.1.3.1 No Action Alternative

If a new easement is not granted for LASAN operation of the Plant, the site would no longer provide recycled water to the lakes in the area or the Los Angeles River. Over time, the Japanese Garden Lake, the Wildlife Lake, and Lake Balboa, which are dependent on the Plant for water, would begin to dry, unless another water source was located. Loss of these waterbodies would provide less available wetland and riparian habitat to protected and common species in the greater Sepulveda Basin area, outside of the project area. In particular, the loss of wetland and riparian habitat in the wildlife area to the southeast of the Plant could potentially result in fewer areas suitable for use by least Bell's vireo. If no alternative water source was located, impacts to wildlife in the area could be significant over time.

Under this alternative, the site currently occupied by the Plant would be restored as a natural upland plant community or a recreational space, and would likely offer higher quality habitat for general wildlife species and birds than is currently found there. Habitat quality would likely be consistent with habitat quality found in surrounding areas, which is relatively low. This impact would be less than significant.

3.1.3.2 Proposed Action

Within the Plant, there is little natural habitat for fish or wildlife species. Birds may use the trees within the Plant boundaries for roosting, foraging, or nesting, but there is no other viable habitat. The Japanese Garden does not provide native habitat for fish or wildlife. Native species that might normally pass through the project area, using trees for stopovers or foraging in grassy areas, would be expected to disperse readily to other areas of the Sepulveda Dam Reservoir, or not enter the site at all when construction began. There are adequate areas of more natural wildlife habitat along the Los Angeles River and the Wildlife Lake to the south of the project area.

West of Haskell Creek and north of the Cricket Fields, staging areas would be buffered from the stream by a minimum distance (mitigation measure BR-3) and biological surveys would be conducted to determine if least Bell's vireo or species protected under the MBTA were present in the area (mitigation measure BR-1). Based on surveys performed by the Corps, it is thought that these protected birds may be present approximately 1,500 ft. south of the project area, but not within or adjacent to the project area, and the habitat within Haskell Creek next to the cricket fields is unsuitable for vireo life history requirements. LASAN and the Corps would perform surveys for this species prior to construction, as specified in mitigation measure BR-1. If nesting pairs of least Bell's vireo or MBTA species were identified during these surveys, mitigation measure BR-2 would be implemented to avoid significant effects to this species during construction. Details of mitigation measures are provided in Section 4. Because listed species including the least Bell's vireo are highly unlikely to be found in the area and because LASAN would confirm this by performing pre-construction surveys, there would be no effect to least Bell's vireo or any other listed species.

Earthen fill needed to modify the dikes would either be locally-sourced offsite, or sourced from a vacant dirt lot located adjacent to the construction laydown area, located south of the Septic Disposal Facility in the northeast portion of the proposed easement area. Limited wildlife use occurs in this area, with only temporary stops to rest in nearby trees. If nesting birds were present, pre-construction surveys would identify nests and species and prescribe avoidance measures. Wildlife would be expected to avoid the area during construction. The loss of availability of the proposed borrow area is not a significant loss to wildlife in the area, as better habitat is available along the Los Angeles River and at the Wildlife Lake to the south of the Plant.

There are no wetlands or other protected habitat types within the project area. Along Haskell Creek, the minimum buffer zone would be established to protect riparian habitat. Operation of the new facilities would not result in increased disturbance or take of protected species or disturbance of nests or breeding habitat. All proposed facilities would be within existing Plant lands, or would be along already highly developed roadways.

3.2 AIR QUALITY, GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ODORS

3.2.1 Baseline Conditions

Air quality conditions are dependent on meteorological conditions as well as emissions in the direct and surrounding areas. Air quality and meteorology are monitored at stations situated throughout a given air quality management area. For the area that includes the Plant, air quality data is recorded at the Reseda air monitoring station, located approximately 4 miles northwest of the Plant. Table 3-2 shows pollutant levels, the Federal and State standards, and the number of exceedances recorded at the Reseda Air Monitoring Station from 2013 to 2015.

Table 3-2. Federal and State Attainment Status Designations for the South Coast Air Basin

Pollutant	Period	Concentration			Standard	Days Above Standard		
		2013	2014	2015		2013	2014	2015
Ozone (O_3)	Max. 1-hr (ppm) Max. 8-hr (ppm)	0.125 0.092	0.116 0.092	0.119 0.094	State = 0.09 State = 0.07 Federal = 0.07	7 21 21	6 31 27	11 34 32
Carbon monoxide (CO)	Max 1-hr (ppm) Max. 8-hr (ppm)	N/A 2.3	4.0 3.0	3.0 2.5	State = 20 Federal = 35 State = 9.0 Federal = 9.0	0 0 0 0	0 0 0 0	0 0 0 0
Nitrogen dioxide (NO_2)	Max. 1-hr (ppb) Ann Average (ppb)	58.2 14.4	58.9 11.7	72.5 13.5	State = 180 Federal = 10	0 0 0	0 0 0	0 0 0

					Federal = 53			
Particulate matter (PM) 2.5 microns or less in diameter ($PM_{2.5}$)	Max. 24-hr ($\mu g/m^3$) Ann. Ave. ($\mu g/m^3$)	41.8 9.71	27.2 9.72	?	Federal = 35 State= 12 Federal =12	1 N/A N/A	0 N/A N/A	? N/A N/A
Source: SCAQMD 2016. Note: ppb = parts per billion. ppm = parts per million. $\mu g/m^3$ = micrograms per cubic meter								

The proposed project is located in Los Angeles County, which is designated as a state nonattainment area for ozone (O_3), particulate matter (PM) 2.5 microns or less in diameter ($PM_{2.5}$), and PM 10 microns or less in diameter (PM_{10}); and as an attainment or maintenance area for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Attainment designations for the region are provided in Table 3-3 (SCAQMD 2016; CARB 2015).

Table 3-3. State and Federal Attainment Status Designations for the South Coast Air Basin

Air Pollutants	State	Federal
O_3 (1-hour)	Nonattainment	Nonattainment - extreme
O_3 (8-hour)	Nonattainment	Nonattainment - extreme
$PM_{2.5}$ (24-hour)	N/A	Nonattainment
$PM_{2.5}$ (Annual)	Nonattainment	Nonattainment -serious
PM_{10} (24-hour)	Nonattainment	Attainment/Maintenance
PM_{10} (Annual)	Nonattainment	N/A
NO_2 (1-hour)	Attainment	Unclassifiable/Attainment
NO_2 (Annual)	Attainment	Attainment/Maintenance
CO (1-hour and 8-hour)	Attainment	Attainment/Maintenance
SO_2 (24-hour and Annual)	N/A	Unclassifiable/Attainment
Lead	Attainment	Nonattainment (Partial)
Particulate Sulfate	Attainment	N/A
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Attainment	N/A
Source: SCAQMD 2016a		

Climate Conditions. The South Coast Air Basin (SCAB), which covers an area of approximately 6,745 square miles, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The southern portion encompasses all of Orange County and Riverside County, Los Angeles County except for Antelope Valley, and the non-desert portion of San Bernardino County. The SCAB lies within the semi-permanent high-pressure zone of the eastern Pacific Ocean. The climate of the region is classified as Mediterranean, and is characterized by warm, dry summers and mild winters with moderate rainfall. Prevailing daily winds in the region are westerly, with a nighttime return flow.

The climate and topography of the SCAB are conducive to the formation of O_3. The heaviest concentrations of O_3 occur during the summer months when there are warm temperatures, stagnant wind conditions, high solar radiation, and an inversion layer at lower elevations. An inversion layer forms when cooler, denser air is trapped by warmer, lighter air. Sea breezes transport air pollutants to adjacent air basins, such as the Mojave Desert Air Basin and the Salton Sea Air Basin. CO concentrations are highest during the winter, when relatively stagnant air conditions result in an accumulation of this pollutant. Highest CO concentrations are found near heavily traveled and congested roadways (SCAG 2008). In the case of PM, maximum concentrations may occur during high wind events or near man-made ground-disturbing activities, such as vehicular activities on roads and earth moving during construction activities.

Air Toxics. The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. The California Air Resources Board (CARB) established a statewide comprehensive air toxics program in the early 1980s. The air toxics program includes the Toxic Air Contaminant Identification and Control Act, California's program to reduce exposure to TACs, and the Air Toxics "Hot Spots" Information and Assessment Act, which requires a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. In addition, the South Coast Air Quality Management District (SCAQMD) Rules 1401 and 1402 specify limits for maximum individual cancer risk, cancer burden, and establish non-cancer acute and chronic hazard indices for new and existing sources.

In 1998, California identified diesel exhaust PM as a TAC based on its potential to cause cancer, premature death, and other health problems (CARB 2015). The CARB adopted the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines* in 2000. Since then, several specific statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles have been developed, including state-of-the-art technology requirements and emission standards. The SCAQMD's Rules 1470 and 1472 establish additional requirements for stationary diesel engines.

3.2.2 Significance Thresholds

The Proposed Action would have significant impacts to air quality under NEPA if it causes or contributes to ambient air concentrations that exceed National Ambient Air Quality Standards (NAAQS). In addition, the SCAQMD developed separate CEQA significance thresholds for regional and localized sources of construction and operational emissions (SCAQMD 2015). These thresholds represent the maximum emission levels that could occur without violating the California Ambient Air Quality Standards (CAAQS). Since the CAAQS are typically at least as stringent as the NAAQS, if not more stringent, these thresholds were used to evaluate effects.

Significant impacts to air quality, greenhouse gases (GHGs), or climate change would occur if construction and/or operation of the alternative would result in the following:

- Daily regional emissions in excess of the SCAQMD Mass Daily Significance Thresholds. The SCAQMD last developed significance thresholds for mass daily emission rates of criteria pollutants for both construction and operational sources in 1993 (SCAQMD

1993) and is in the process of updating the handbook. The GHG significance threshold combines construction amortized over 30 years and operational emissions. On December 5, 2008 the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency (SCAQMD 2008). The guidance provides a tiered approach for significance determinations, including a Tier 3 screening threshold of 10,000 metric tons (MT) of carbon dioxide (CO_2) equivalent emissions (CO_2e).

- Local air quality impacts in excess of the localized significance thresholds (LSTs). The SCAQMD has developed the LST methodology as a way of demonstrating compliance with CAAQS and NAAQS. LSTs only apply to NO_X, CO, PM10, and PM2.5.
- TAC emissions which would expose sensitive receptors to substantial TAC concentrations.
- Annual emissions in excess of the general conformity *de minimis* thresholds promulgated in 40 C.F.R. 93.153. An action would create a significant effect if construction and/or operation would exceed the general conformity *de minimis* thresholds for pollutants in which the region is designated as nonattainment or maintenance (Table 3-3).
- Result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an applicable NAAQS or CAAQS.

3.2.3 Environmental Consequences

An Air Quality and Greenhouse Gas Technical Study was prepared to assess the impacts of construction and operation of the project on air quality and GHG emissions (Tetra Tech 2017, Appendix B). Construction and operational emissions were estimated using the California Emissions Estimator Model® (CalEEMod), Version 2016.3.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. For purposes of comparison to LSTs, the two components of the project, Dike Rehabilitation and AWPF construction and operations, were each assessed. All criteria pollutants were modeled other than lead (Pb), for which there would be no potential sources of emission.

3.2.3.1 No Action Alternative

Under the no action alternative, LASAN would not be granted a new easement and the Plant would be decommissioned. In the long term, decommissioning the Plant would decrease localized emissions. It is expected, however, that the regional water treatment burden, along with the emissions associated with treatment of that water, would be transferred to other facilities in the region, and that regional emissions would therefore remain unchanged. Under the no action alternative, there would be no emissions associated with construction of the proposed facilities. However, demolition of the existing facilities and associated infrastructure, removal of the floodwalls and dikes, and the restoration of topography to pre-project conditions would require

the use of heavy construction equipment and trucks. This would generate substantial short-term emissions, likely similar to those modeled for construction under the Proposed Action. Impacts would be less than significant.

3.2.3.2 Proposed Action

The current operation of the facility would not be expected to change significantly with the implementation of the Proposed Action. Operational emissions associated with the Proposed Action would be limited to increased trips associated with the additional employees required as well as minor increases in emissions associated with operation of the AWPF. The maximum daily regional emissions that would result from the construction and operation of the Proposed Action are compared to regional thresholds in Tables 3-4 and 3-5, respectively. These tables indicate that all emission levels would be below regional thresholds, therefore regional impacts associated with the Proposed Action would be less than significant.

Table 3-4. Daily Regional Construction Emissions associated with the Proposed Action

Emissions Component	Criteria Pollutant Emissions (pounds [lbs] per day [lbs/day])					
	Reactive organic gases (ROG)	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**Sulfur oxides (SO_X)**	**CO**
Estimated Construction Emissions[1]	62.5	68.9	13.4	6.7	0.1	58.3
Regional Threshold[2]	75	100	150	55	150	550
Above Threshold?	No	No	No	No	No	No
[1] CalEEMod output files, Appendix B, [2] SCAQMD 2015						

Table 3-5. Daily Regional Operation Emissions associated with Proposed Action

Emissions Component	Criteria Pollutant Emissions (lbs/day)					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	SO_X	CO
Estimated Construction Emissions[1]	7.4	1.0	0.2	0.1	0.01	1.2
Regional Threshold[2]	55	55	150	55 l	150	550
Above Threshold?	No	No	No	No	No	No

[1] CalEEMod output files, Appendix B, [2] SCAQMD 2015

Table 3-6 summarizes the GHG analysis which shows the CO_2e emissions resulting from the Proposed Action would be less than the SCAQMD significance threshold. Therefore, cumulative GHG air quality impacts resulting from implementation of the Proposed Action would be less than significant.

Table 3-6. GHG Emissions from Construction and Operation under Proposed Action

Activity	CO_2e (MT/year [2,3])
Construction [1]	42.2
Operation	1,754.9
Total Project Emissions	1,797.1
SIGNIFICANCE THRESHOLD	10,000
SIGNIFICANT?	No

[1] CalEEMod output files, Appendix B
[2] 1 MT = 2,205 lbs
[3] GHGs from short-term construction activities are amortized over 30 years

The maximum daily unmitigated emissions that would result from dike rehabilitation under the Proposed Action are compared to LSTs in Table 3-7. Daily emission levels would be below thresholds for all pollutants, therefore, localized impacts resulting from the dike rehabilitation would be less than significant.

Table 3-7. Localized Construction Emissions – Dike Rehabilitation Component

Emissions Component	Criteria Pollutant Emissions (lbs/day)					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	SO_X	CO
Estimated Construction Emissions[1]	3.1	33.9	8.3	5.0	0.1	18.2
Localized Threshold[2]	N/A	142	8.4	5.0	N/A	891
Above Threshold?	N/A	No	No	No	N/A	No

[1] CalEEMod output files, Appendix B
[2] LSTs, linear interpolation between 5-Acre Site and 2-Acre Site for a 3.44-Acre site, 25-meter receptor distance (SCAQMD 2016b).

The maximum daily unmitigated emissions that would result from construction of the AWPF under the Proposed Action are compared to LSTs in Table 3-8. Daily emission levels would be below thresholds for all pollutants except for $PM_{2.5}$. The maximum daily unmitigated emission level of $PM_{2.5}$ would exceed the LST. With mitigation, $PM_{2.5}$ maximum daily emission levels would be reduced from 5.4 pounds (lbs) per day (lbs/day) to 3.1 lbs/day. This mitigated emission rate is less than the significance threshold of 5.3 lbs/day. Therefore, localized impacts resulting from the AWPF construction under Alternative A, the Proposed Action, would be less than significant with mitigation. Details of mitigation measures are provided in Section 4.

Table 3-8. Localized Construction Emissions – AWPF Component of Proposed Action

Emissions Component	Criteria Pollutant Emissions (lbs/day)					
	ROG[3]	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**SO_X**	**CO**
Estimated Construction Emissions[1]	61.4	53.9	8.7	**5.4**	0.1	42.7
Localized Threshold[2]	N/A	153	9.3	5.3	N/A	987
Above Threshold?	N/A	No	No	Yes	N/A	No

[1] CalEEMod output files, Appendix B
[2] Localized Significance Thresholds, linear interpolation between 5-Acre Site and 2-Acre Site for a 4-Acre site, 25-meter receptor distance (SCAQMD 2016b).
[3]ROG is a precursor to ozone, therefore estimated ROG emissions are used to demonstrate that ozone thresholds are not exceeded.

The greatest potential source of TAC emissions under the Proposed Action would be the operation of heavy duty diesel construction equipment, which would generate diesel PM tailpipe emissions. The risk posed to a receptor is a function of both the concentration of PM and the duration of exposure. Potential receptors at the nearest receptor location, the Japanese Garden, would be present for short time periods at infrequent intervals. All other potential receptors are in residential areas that are separated from the project site by large distances and by heavily trafficked thoroughfares (Victory Blvd. to the north and I-405 to the east). Additionally, while construction activity would vary from day to day, construction activity would not occur with enough intensity and duration to significantly increase health risks. Impacts would be less than significant.

As stated above, the operation of the facility would not be expected to change significantly with the implementation of the Proposed Action. Emissions of TACs associated with facility operations would be limited to tailpipe emissions generated by the 16 additional employee trips expected under the Proposed Action. These emissions would not only be minimal in magnitude, they also would be regionally dispersed, and therefore they would not expose sensitive receptors to substantial TAC concentrations. Impacts would be less than significant.

Annual emissions of criteria pollutants under the Proposed Action are compared to the general conformity de minimis thresholds in Table 3-9. Emissions would be below thresholds for all

pollutants for the Proposed Action. Therefore, impacts resulting from the Proposed Action would be less than significant and a conformity determination would not be required.

Table 3-9. Maximum Annual Emissions

Emissions Component	Criteria Pollutant Emissions (tons per year)					
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**SO_X**	**CO**
Estimated Emissions Proposed Action[1]	1.3	6.3	1.1	0.6	<0.1	5.4
Conformity Threshold[2]	10	10	100	70	70	100
Above Threshold?	No	No	No	No	No	No

[1] CalEEMod output files, Appendix B, [2] SCAQMD 2015.

3.3 CULTURAL RESOURCES

3.3.1 Baseline Conditions

The project site area of potential effects (APE) includes the existing Plant area and the surrounding area where new construction is proposed, including access routes, areas of dike construction, areas of planned excavation for infrastructure improvements, and also borrow areas, including off-site borrow areas. As currently defined, the APE measures 105.4 acres. The vertical extent of the APE, defined as the maximum extent of disturbance below ground surface, would vary across the APE depending on the particular alternative and project component, but could reach a maximum depth of 15.5 ft. below ground surface, primarily where the AWPF and Niwa Road sewer project would be constructed, and could encounter native soils. The APE may be refined during the consultation process pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. 300101 et seq.).

A Phase I archaeological and paleontological resources assessment was prepared as part of this project (ArchaeoPaleo 2017). This evaluation included a records search of databases managed by the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System. Archival records reviewed also included current inventories of the National Register of Historic Places (NRHP), California Historical Landmarks, California Points of Historical Interest, the California State Historic Resources Inventory for Los Angeles County, the California Register of Historic Resources, and the Los Angeles Historic-Cultural Monument List to determine if any local resources have been previously evaluated for historic significance. U.S. Geological Survey topographic maps, plat maps, other historic maps, and on-line aerial photographs of the region were also examined to determine approximate locations of historic resources and ethnographic Native American villages.

SCCIC records indicated that only one prehistoric archeological site and an isolated lithic core have been recorded within a mile of the Plant. Three historic period built environment resources have been recorded adjacent to the project area, although not within the APE. These include the Area Maintenance Support Activity 32 (P19-187950) and the Van Nuys Air National Guard Facility property (P19-189772), both of which were once part of the adjacent former Nike

Missile Base, just outside of the project area, and the Sepulveda Flood Control Dam (P19-188093) which is adjacent to the project area on the east side. The dam has been determined eligible for listing on the NRHP and the other two sites have been evaluated as not NRHP eligible (ArchaeoPaleo 2017).

ArchaeoPaleo Resource Management, Inc. (APRMI), on behalf of LASAN, requested a Sacred Lands File Search of the project area and a Native American Contacts list from the Native American Heritage Commission (NAHC) on March 19, 2015. The NAHC search of the Sacred Lands Inventory and a contacts list was received on March 26, 2015. The NAHC Sacred Lands File records search failed to indicate the presence of known Native American cultural resources (sacred sites) within the project boundaries.

The NAHC identified Native American individuals and organizations who may have knowledge of cultural resources in the project area, including representatives of the Chumash, Fernandeño, and Tataviam tribes. APRMI called the tribes/individuals on the NAHC list to verify their mailing information, and to inform them about the Proposed Action and that a package regarding the Proposed Action was being mailed. The Project informational package and cover letter, asking for comments on the potential effects on Native American resources, were sent to the NAHC contact list on March 31, 2015 (Appendix C). One response was received from Beverly Folkes on April 2, 2015, who expressed concern about the proposed project due to its proximity to documented sacred sites and recommended a Native observer be present during any ground disturbance related to the Proposed Action (ArchaeoPaleo 2017:50).

Field reconnaissance surveys of the APE in 2015 and 2017 by APRMI found the area to be mostly developed and urbanized, and those areas that are not developed are disturbed with paths, refuse disposal, and homeless encampments. The construction laydown area, which is undeveloped, also appears to have a deposit of artificial fill. The area that includes the borrow area is also likely disturbed, but since the upper 4 feet has been removed in the past, native soils may be found close to the ground surface. Ground visibility ranged from good in areas devoid of vegetation and structures to poor in much of the Sepulveda Dam Recreation Area due to dense vegetation cover and plant debris.

No prehistoric archaeological resources were encountered during field reconnaissance, although three historic structures were noted. These include the earthen embankment of the previously recorded Sepulveda Dam (P19-188093), which borders the survey area along the northeast section of the project area, the former Nike Missile Base (P19-189772) structure and grounds adjacent to the northern boundary of the project area, and Haskell Creek improvements, including concrete (NETROnline 2011) and asphalt channeling. The Haskell Creek concrete improvements appear to have been constructed prior to 1952 as part of a larger program to channelize most or all of Haskell Creek, including areas upstream and downstream of the project area, by the Corps. No documentation of the asphalt was found. ArchaeoPaleo has further documented these findings in an associated State of California Department of Parks and Recreation Primary Record Form.

The wall separating Woodley Ave. Park from the Japanese Garden and the Plant is not considered historic, as it was built between 1980 and 1984, and therefore is less than 50 years old. A single possible historic artifact was found, a round colorless glass bottle base embossed

with "ETERNALUX" and an "R" in a circle that represents a registered trademark; this was later determined to have been made by a local candlemaker in 2007.

3.3.2 Significance Thresholds

Impacts to cultural resources would be considered significant if they were to cause:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standard for the Treatment of Historic Properties (36 C.F.R. Part 68) and applicable guidelines;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization;
- Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance; and
- Disturbance of human remains, including those interred outside of formal cemeteries (NEPA).

The NHPA protects historic and cultural resources. The NHPA defines a historic resource as significant if eligible for inclusion in the NRHP as defined by one of four eligibility criteria set forth in 36 C.F.R. §60.4A. Determination of historic resource significance is carried out via implementation of the Section 106 process of the NHPA, as set forth by 36 C.F.R. §800 "Protection of Historic Properties." Such significant historic resources can include archaeological sites of pre-historic or historic context; historic buildings, structures, or objects of state, local, or federal importance that retain integrity of location, design, setting, feeling, association, material, and/or workmanship; and

A. Are associated with events which have made a significant contribution to the broad patterns of our history, or
B. Are associated with the lives of persons significant in our past, or
C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or are representative of significant and distinguishable entity of which the component may lack individual distinction, or
D. Yield, or are likely to yield, data important to our understanding of prehistory and/or history.

Adverse effects under the NHPA and significant impacts under NEPA are similar in concept but are not equivalent terms. A range of impacts could be classified as an adverse effect but may not meet the threshold of NEPA significance, as NEPA requires consideration of the degree to which

the action may adversely affect properties listed in or eligible for listing in the NRHP. For example, the introduction of visual intrusions may adversely affect a historic property eligible under criterion A because the intrusions would diminish its integrity, but may not meet the threshold of significance under NEPA. Demolition of the property however, would likely constitute a significant impact because destruction would preclude its NRHP eligibility. An adverse effect would be considered a significant impact under NEPA if:

- After minimization and mitigation, remaining impacts to the property would be substantial enough that implementation of the alternative would result in the loss of a property's eligibility status under criteria A-C;
- The implementation of the alternative would result in the destruction of a site eligible under criterion D with no mitigation of adverse effects; or
- The implementation of the alternative would result in a major modification of a National Historic Landmark or a property meeting the criteria of a National Historic Landmark as defined in 36 C.F.R. Part 65.

3.3.3 Environmental Consequences

3.3.3.1 No Action Alternative

Under the no action alternative, a new easement would not be granted and no construction would occur within the lands currently leased to the Plant. As a result, there would be no impacts from new construction. Under this alternative, the Plant would cease operations in 2019, following the expiration of the current lease. At this time, the Plant would be decommissioned. The Plant and all associated infrastructure (including the floodwalls and dikes) would be removed and the topography of the site would be restored to pre-construction conditions. Excavation and grading associated with decommissioning of the Plant would occur within areas that had previously been disturbed during the initial construction of the Plant facilities and the dikes. As a result, decommissioning of the Plant would not be expected to result in impacts to cultural resources. After the expiration of the lease, lands within the Plant boundaries would be managed by the Corps, which would continue to take responsibility for any cultural or historic resources that may be found at the site in the future. Therefore, this alternative would result in no impacts to cultural resources, and no mitigation is required.

3.3.3.2 Proposed Action

A Phase I archeological and paleontological resources survey was performed within the easement area boundaries (ArchaeoPaleo 2017). Although no recorded historic resources were identified within the easement area, the concrete-lined culvert within Haskell Creek was recorded but recommended as not eligible. The Corps will consult with the SHPO to confirm this recommendation. Historic resources identified nearby, but outside of, the easement boundaries, include Sepulveda Dam, which is eligible for listing as a historic resource. Since the dam is outside of the proposed easement area, it would not be directly affected by construction actions, which would occur primarily at least 100 yards away from it. The view of the dam from surrounding areas is not likely to change, since no trees would be removed in its vicinity, and construction of new facilities would only occur within the diked area that comprises the current grounds of the Plant.

Construction and operation of the Proposed Action would occur primarily in previously disturbed areas, and excavation would occur primarily in soils that would be imported and placed as fill material. Construction in previously disturbed areas is not expected to result in impacts to historic resources, however, excavation to depths of up to 15.5 ft. below the current ground surface for the AWPF and Niwa Road sewer project could uncover native soils. Since several previous surveys have not found evidence of cultural resources at this site, the potential to encounter cultural resources is considered low, however, mitigation measures CR-1 through CR-3 would be implemented to ensure that any accidental discovery of cultural resources would be documented and further construction actions would be planned to avoid any additional cultural resources. With implementation of mitigation measures CR-1 through CR-3, potential impacts to cultural resources would be less than significant. Details of mitigation measures are provided in Section 4.

3.4 PALEONTOLOGICAL RESOURCES

3.4.1 Baseline Conditions

A Phase I cultural and paleontological resources assessment was prepared as part of this project (ArchaeoPaleo 2017). On March 19, 2015, APRMI requested a paleontological resources records search for the Plant from the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County. A vertebrate paleontological records check was conducted on April 15, 2015 and consisted of reviewing the museum's paleontology collection records of recorded fossil sites on and/or near the Plant area. An online Specimen Search was conducted on March 31, 2015 for listed Los Angeles County Quaternary-age sites definitively located within the Plant vicinity was also conducted using the University of California Museum of Paleontology (UCMP) on-line database (http://ucmpdb.berkeley.edu) for the UCMP collections.

The results of the paleontological records search indicate there are no known vertebrate fossil localities within the Plant area, but there are fossil localities nearby within older sedimentary deposits than are present on the surface of the Plant area. While such deposits may not occur on the surface of the Plant, they may occur at an unknown depth in the Plant area, possibly within a few feet of the surface. No Quaternary-age fossil localities in the UCMP database were definitively located near the Plant area.

3.4.2 Significance Thresholds

Impacts to paleontological resources would be considered significant if construction excavation resulted in destruction of paleontologically-sensitive deposits underlaying a project site.

3.4.3 Environmental Consequences

3.4.3.1 No Action Alternative

Under the no action alternative, there would be no construction of the dikes or AWPF, so there would be no impacts from new construction. Under this alternative, the Plant would cease operations in 2019, and lands within the Plant boundaries would be managed by the Corps, which would continue to take responsibility for any paleontological resources that may be found

at the site in the future. Therefore, this alternative would result in no impacts to paleontological resources, and no mitigation is required.

3.4.3.2 Proposed Action

A Phase I paleontological resources survey was performed within the lease area boundaries. No paleontological resources were identified within the lease area (ArchaeoPaleo 2017), although there are three vertebrate fossil localities within 1-1.5 miles in older sediment than is present on the Plant surface. This older sediment is not present on the surface but may be present at an unknown depth within the Plant area.

Construction and operation of the Proposed Action would occur primarily in previously disturbed areas, and excavation would occur primarily in soils that would be imported and placed as fill material. Construction in these types of soils would result in no impacts to paleontological resources. However, excavation to depths of up to 15.5 ft. below the current ground surface for the AWPF and Niwa Road sewer project could uncover native soils. Although the potential to encounter paleontological resources is considered low, mitigation measure PR-1 would be implemented to ensure that any accidental discovery of paleontological resources would be documented and further construction actions would be planned to avoid any additional paleontological resources. With implementation of mitigation measure PR-1, potential impacts to paleontological resources would be less than significant. Details of mitigation measures are provided in Section 4.

3.5 GEOLOGY, SOILS, AND TOPOGRAPHY

3.5.1 Baseline Conditions

The Plant is located in the San Fernando Valley, which lies between the Santa Susana and San Gabriel Mountains to the north, the Santa Monica Mountains to the south, the Verdugo Hills to the east, and the Simi Hills to the west. The valley is approximately 20 miles long and ranges from 2 to 12 miles wide. The Plant is situated on an alluvial outwash complex shedding from the northern flank of the Santa Monica Mountains to the south and the Los Angeles River complex to the west.

The principal geologic materials exposed within the project site and surrounding area include artificial fills and alluvial sediments. Sedimentary and igneous bedrock deposits are exposed in the hill and mountain ranges, located approximately 2 miles to the south (Hitchcock and Wills 2000).

Soils. Soil borings taken in 2013 found that minor accumulations of fill are present within the parking lot and the perimeter dikes (Tetra Tech 2013). These fills are in turn underlain by alluvium to at least the depths of field exploration. Based upon borehole data obtained from GeoTracker records, alluvium is likely in excess of 100 ft. deep at the site. The predominance of fine-grained materials encountered within the on-site borings suggests that the majority of local on-site alluvial deposits were derived from the adjacent sedimentary bedrock units exposed in the hills to the south of the site. More granular beds encountered in the borings may be related to deposition associated with the Los Angeles River (Tetra Tech 2013). Soils found beneath the

project site are Quaternary Alluvium. This soil type consists primarily of gravel, sand, and silt resulting from the weathering of the Santa Monica Mountains (USDA 2015).

Seismology. The southern California region is known to be seismically active. Earthquakes occurring within approximately 60 miles of the site are generally capable of generating ground shaking of engineering significance to the proposed construction. Active faults are those faults that exhibit evidence of movement within the Holocene period (approximately the last 11,000 years). The state of California defines an active fault as a fault that has experienced surface displacement within the Holocene (designation and zoning per the Alquist-Priolo Special Studies Zones Act enacted in 1972). The closest faults to the site which are considered active are the Verdugo Fault, mapped approximately 7 miles northeast of the site and the Hollywood Fault, located approximately 8 miles to the south. The San Andreas Fault is located about 30 miles to the northeast of the site. Other nearby active faults meeting the state of California definition include the Mission Hills, Sylmar and Tujunga faults, located approximately 7 to 10 miles to the north and northeast (ground rupture areas associated with the 1971 Sylmar Earthquake), the Newport Inglewood Fault, located approximately 12 miles to the southeast, and the Northridge Hills Fault, located approximately 8 miles to the north.

Seismic Hazards. Based on the review of the Van Nuys Quadrangle State of California Seismic Hazard Zone Report and Map of Seismic Hazard Zones (CDC 1998), the Plant is located within an area identified by the state of California as subject to the hazards of liquefaction. Site-specific liquefaction analysis performed as part of the engineering evaluation indicated that due to the composition of the substrate and location of the water table, the potential for liquefaction at this site is low (Tetra Tech 2013). The site is not located in an area subject to earthquake-induced landslides.

Surface Fault Rupture. Official maps of earthquake fault zones were reviewed to evaluate the location of the project site relative to active fault zones. Earthquake fault zones (known as Special Studies Zones prior to 1994) have been established in accordance with the Alquist-Priolo Special Studies Zones Act enacted in 1972. The Act directs the state Geologist to delineate the regulatory zones that encompass surface traces of active faults that have a potential for future surface fault rupture. The purpose of the Alquist-Priolo Act is to regulate development near active faults in order to mitigate the hazard of surface fault rupture. The site is not located within a designated Alquist-Priolo Earthquake Fault Zone for fault surface rupture hazard.

Topography. Other than the relief provided by the dikes and structures associated with Plant operations, the site is flat, and located at an elevation of approximately 709 ft. (North American Vertical Datum of 1988). The general topographic trend is towards lower elevation traveling southwards from the Plant, with topographic lows in Sepulveda Dam Reservoir occurring within the bed of the Los Angeles River.

3.5.2 Significance Thresholds

Significant environmental effects associated with soils, topography, or geology would result if any of the following conditions occurred as a result of construction or operation:

- Substantial effects to people or structures from geologic conditions, including expansive soils, liquefaction, earthquakes, landslides, substantial erosion, depletion of groundwater supplies, or interference with groundwater recharge.

3.5.3 Environmental Consequences

3.5.3.1 No Action Alternative

Under the no action alternative, a new easement would not be granted and no construction would occur within the lands currently leased to the Plant. As a result, there would be no impacts from new construction. Under this alternative, the Plant would cease operations in 2019, following the expiration of the current lease. At this time, the Plant would be decommissioned. The Plant and all associated infrastructure (including the floodwalls and dikes) would be removed and the topography of the site would be restored to pre-construction conditions. Excavation and grading associated with decommissioning of the Plant would occur within areas that had previously been disturbed during the initial construction of the Plant facilities and the dikes. All excavated material would be reused offsite or disposed of at an approved landfill facility with sufficient capacity to receive the material. After the site topography was returned to pre-project conditions, barren areas would be seeded and/or planted with native vegetation to reduce the potential for erosion. As a result, decommissioning of the Plant under the no action alternative would have no significant effects on soils, topography, or geology, and no mitigation would be required.

3.5.3.2 Proposed Action

Construction and operation of the dike rehabilitation and AWPF would occur on relatively flat ground within the diked area of the Plant. Due to the flat topography on site and in the immediate area, there is minimal risk of landslides. There would be no landslide-related impacts to geology, soils, or topography.

According to the Geotechnical Investigation Report prepared for the dike rehabilitation (Tetra Tech 2013), the project site and the soils beneath the site have low susceptibility to liquefaction, and with compliance with City of Los Angeles codes for compaction and reuse of such soils, they are suitable to accommodate the proposed structures. Therefore, risk of loss of life or property due to liquefaction is low. Furthermore, the soils sampled during geotechnical analysis had sufficient content of alluvial material (sand and gravel) that it is not considered expansive soil, therefore there would be no effects associated with expansive soils (Tetra Tech 2013).

The Plant's location is within an area where seismic activity from nearby faults could result in ground shaking. The potential severity of ground shaking is not predictable; however, since the structures would be designed in accordance with all applicable design standards, including appropriate shoring during construction, and other measures required by the City of Los Angeles General Plan Safety Element as well as the California Building Code, impacts related to seismic shaking would be less than significant.

The project would be engineered in such a way so as to continue to drain water off the site, and would not alter groundwater infiltration rates. No mineral resources would be lost, and with implementation of the mitigation measures outlined in Section 4, impacts associated with erosion

or sedimentation or effects to people or structures from geologic conditions would be less than significant.

3.6 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

This section evaluates potential impacts associated with hazardous materials and petroleum products.

3.6.1 Baseline Conditions

LASAN prepared an Environmental Baseline Survey (EBS) to assess the potential for the occurrence of any recognized environmental conditions (RECs) (Tetra Tech 2015; Appendix D). RECs may include the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The assessment team completed a detailed search and review of available documentation, records, inventories, and other sources of information in the possession of the Plant staff; interviewed current Plant employees familiar with present and past activities, incidents, and practices in and around the property; and conducted a site reconnaissance and visual inspection of the Plant, including buildings, equipment, utilities, and the environmental setting.

The Plant uses hazardous materials and petroleum products and generates hazardous and petroleum waste in the course of its operations. These include water treatment chemicals, laboratory monitoring chemicals, O&M chemicals, and pesticides used at the Japanese Garden. Hazardous materials and petroleum products are properly stored, handled, and used. Hazardous and petroleum waste is properly stored and regularly picked up and disposed off-site by an outside contractor per Federal Occupational Safety and Health Act (OSHA) requirements (Mays 2015).

The Plant holds a SCAQMD permit for emissions associated with sewage treatment, a storage tank containing ammonia, an activated carbon absorber drum vent, three generators, and a paint booth. The project site is not within a quarter-mile of an existing or proposed school.

One underground storage tank (UST) containing diesel fuel is located on the project site. Two USTs have been removed from the project site. Soil samples collected in the vicinity of the removed USTs showed only residual levels of petroleum products which did not require soil remediation (American Analytics 1993, City of Los Angeles 1993).

In 2011, organochloride pesticides, specifically dichlorodiphenyltrichloroethane (DDT) and its metabolites, dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyldichloroethane (DDD), were found in soil during excavation for construction of two storage basins. The source of these pesticides is likely agricultural activities on the project site and in the surrounding area that occurred in the early to mid-1900s. Pesticide concentrations did not exceed the EPA soil screening levels (FREY Environmental, Inc. 2011). However, affected soil was excavated and disposed of off-site.

The project site is not on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, also known as the Cortese list. To determine if the project site was on the Cortese list, the State of California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) EnviroStor/Geotracker database was searched (DTSC and SWRCB 2016).

The database search identified several sites near the project site where investigation or remediation of hazardous materials or petroleum products has occurred. This includes the California Air National Guard (CANG) facility located immediately to the north of the Plant, where localized soil contamination was found at two sites. The affected soil was removed, groundwater was not impacted, and the contaminants are not likely to have migrated to the project site (DTSC and SWRCB 2016).

The Van Nuys Airport is approximately 0.75 mile north-northwest of the Plant. The Plant is not within the airport's land use plan area or area of influence (City of Los Angeles 2006, Los Angeles County Airport Land Use Commission 2003).

3.6.2 Significance Thresholds

Significant impacts associated with hazardous materials would occur if construction or operation of the alternatives would result in the following:

- Creation of a hazard to the public or the environment through the transport, use, or disposal of hazardous materials;
- Creation of a hazard to the public or the environment through reasonably foreseeable accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; or
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

3.6.3 Environmental Consequences

3.6.3.1 No Action Alternative

Under the no action alternative, demolition, excavation, and grading activities would require the use of heavy equipment onsite, resulting in the potential for accidental introduction of hazardous materials into the environment. Releases could result from oils and grease on equipment, accidental spills from heavy equipment, or leaks resulting from breach of existing facilities. However, through the implementation of a hazardous materials management plan, spills response

plan, and adequate training of onsite laborers, impacts resulting in hazardous conditions during demolition would be less than significant.

Decommissioning of the Plant would result in the termination of hazardous materials use for project operations. In order to secure the site in disuse, or in order to make the site useful in any other capacity than as a treatment plant, the area could require extensive local hazardous materials removal and remediation following demolition. Furthermore, the transfer of water treatment capacity to other treatment plants in the region (such as the HWRP) would place additional pressure on those plants, resulting in greater need for use of hazardous materials and increased generation of hazardous and toxic materials. Under this action, measures could have the potential to place other treatment plants at risk of increased hazardous materials accidents. Through carefully controlled remediation measures, impacts to the Plant property would be less than significant. However, if inadequate water treatment capacity was not found for the San Fernando Valley, the potential exists for significant hazardous waste impacts as a result of overburdening existing treatment facilities.

3.6.3.2 Proposed Action

Granting of a new easement would result in a period of construction lasting approximately four years. During that construction period, additional heavy equipment would be present onsite, resulting in the potential for accidental introduction of hazardous materials into the environment. This would result from oils and grease on equipment, accidental spills from construction equipment, or leaks resulting from breach of existing facilities. However, through the implementation of a hazardous materials management plan, spills response plan, and adequate training of onsite laborers, impacts resulting in hazardous conditions during construction would be reduced to less than significant. Details of mitigation measures are provided in Section 4.

The Plant's Response Plan provides a detailed hazardous materials release response plan and evacuation guidelines (LASAN 2005). If some or all of the facilities identified in this EA were constructed, the Response Plan would be updated accordingly. All contractors involved in construction of the Proposed Action would be subject to the provisions of the Response Plan, or would be required to develop a comparable plan, which would not interfere with the existing plan. If contaminated soil or groundwater is encountered during construction, standard practices would be followed for proper removal and disposal, in accordance with federal, state, and local laws and regulations.

Following construction completion, the Response Plan would continue to be implemented as it currently is. New facilities would be incorporated into the Response Plan's hazardous materials oversight. Consolidation of maintenance warehouse facilities would concentrate hazardous materials storage and reduce the potential for hazardous spills at multiple sites. Therefore, operation of new facilities would not result in significant impacts associated with hazardous materials.

3.7 LAND USE

3.7.1 Baseline Conditions

The Sepulveda Dam Basin Master Plan specifies the area occupied by the Plant as Multiple Resource Management – Inactive. Lands are managed for one or more activities assuming that they are compatible with the primary allocation(s).

Inactive and/or Future Recreation Areas are areas planned for future uses or that have been temporarily closed. These lands will be classified as Multiple Resource Management in the interim.

Land uses surrounding the Plant (within the Sepulveda Dam Reservoir) are primarily recreational. In the immediate vicinity, Woodley Ave. Park surrounds the Plant to the west, south, and east. The portion of Woodley Park that is east of the Plant includes cricket fields and an archery range (Figure 2-1). South and west of the Plant, Woodley Park consists of open areas that are available for passive recreation. West of Woodley Ave. Park, across Woodley Ave., is the Woodley Golf Course, beyond which is Lake Balboa Park (Figure 1-2). Southeast of the Plant and south of Woodley Ave. Park, a section of land between Haskell Creek and Woodley Ave. is managed as a Wildlife Reserve (Figure 1-2). North of the Plant, but within the Sepulveda Dam Reservoir, there is a National Guard training facility (Figure 2-1). Other land uses in the surrounding area (outside of the Sepulveda Dam Reservoir) include transportation and high-density housing. Lands used for transportation are found to the west, north, and east of the Plant, and include freeways and 2- and 4-lane surface streets. The area north of Victory Blvd., which is north of the Plant and outside of the Sepulveda Dam Reservoir (and is therefore not on Corps land), is primarily used for multiple-family apartments.

3.7.2 Significance Thresholds

Construction and operation of the proposed project would have a significant effect on land use if it would result in:

- A permanent inconsistency with the Sepulveda Dam Basin Master Plan or the Corps' Land Use Policy; or
- The introduction of permanent features that would disrupt, divide, or isolate existing neighborhoods, communities, or land uses.

3.7.3 Environmental Consequences

3.7.3.1 No Action Alternative

Under the no action alternative, and following expiration of the lease, jurisdiction of the area currently occupied by the Plant would return to the Corps, who would manage lands in accordance with Corps policies and guidelines. Subsequent land use within the area that is currently leased to LASAN would be determined by the Corps. The land use could change if the Corps converted the land into a Corps-managed recreation area or granted an easement to another agency or entity, such as the City of Los Angeles Department of Recreation and Parks. This impact would be less than significant.

3.7.3.2 Proposed Action

The proposed construction components that would occur if a new easement were granted would include construction of the AWPF facilities, which include buildings of two stories or less. No land use designations would require reclassification under the Sepulveda Dam Basin Master Plan as a result of the Proposed Action. Lands occupied by the Plant would not change in use or classification from Inactive and areas designated as Recreation – Low Density would remain so under all operations of the new facilities.

New facilities would not disrupt or divide existing communities in the area, as all actions are proposed to occur on lands already under operation by the Plant. The extension of a brine line through the Plant would take place underground and have no above ground impacts to neighborhoods or communities. All components of the Proposed Action would comply with local zoning requirements and guidelines for construction, including the Public Facilities General Plan and the Sepulveda Dam Basin Master Plan. Impacts would be less than significant.

3.8 NOISE AND VIBRATION

3.8.1 Baseline Conditions

Noise. Noise at and around the Plant is characteristic of a densely populated urban area, with major noise sources being the I-405 Freeway, located just east of the Plant; Victory Blvd., located just north of the Plant; and noise from aircraft taking off from and landing at the Van Nuys Airport, which is located approximately two miles northwest of the Plant.

Operation of the Plant generates noises that contribute to the ambient noise levels in the vicinity of the Plant. This noise is generated 24 hours per day, 7 days per week. Elevated noise levels occur immediately adjacent to some of the equipment used at the Plant, but this equipment is housed indoors and sound levels are greatly attenuated. Although this ambient noise is noticeable in areas immediately adjacent to the Plant, it is well below any applicable noise thresholds and does not constitute a major noise source.

The Plant is bounded on the north by the CANG. Operational noise from the Plant is audible to the north at the CANG site, but during field visits, sounds levels were low enough to not be disruptive (Tetra Tech 2014). The Plant is surrounded on the south, east and west by parklands that are used for casual recreational activities by the public. Any sensitive receptors would be located to the north of Victory Blvd. There are no schools, hospitals, libraries, nursing homes, or other sensitive receptors in the vicinity of the project area.

Ambient noise conditions are documented in this report based on a field noise measurement study performed the week of November 28, 2016 (Appendix E) (Tetra Tech 2017a). A SoundPro DL sound level meter was used to monitor noise levels at four locations surrounding the Plant; just inside the entrance to the Japanese gardens at the southern end of the gardens; at the northeast corner of the gardens adjacent to the Plant; on the north side of Victory Blvd. adjacent to Blewett Ave.; and at Woodley Park approximately adjacent to the Plant entrance. Measurements were made during mid-morning and early afternoon hours to capture peal noise levels (off-peak traffic levels). Measurements were made in duplicate to ensure representative sound level quantification. Results of the noise measurement study are provided in Table 3-10.

Table 3-10. Recorded Ambient Sound Levels in or Near the Project Area

Location	Measurement 1 (decibels [dB])	Measurement 2 (dB)	Average (dB)
Victory Blvd.	78.3	78.5	78.4
Woodley Park	60.3	61.1	60.7
Japanese Garden, north	58.7	61.2	60.0
Japanese Garden, south	55	57.7	56.4

Vibration. Operation of the Plant is not a significant source of vibration, and no other stationary sources of vibration have been identified in the project area. Vibration could occur as a result of truck traffic or low-flying aircraft, but these sources would be occasional and temporary.

3.8.2 Significance Thresholds

An alternative would result in significant noise or vibration effects during construction if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 A-weighted decibels (dBA) or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use;
- Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday; or
- Construction would generate excessive ground-borne vibration that was annoying or disturbing to humans or caused damage to structures.

An alternative would result in significant noise or vibration effects if operation would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose people to or generate excessive ground-borne vibration or ground-borne noise levels;
- Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

3.8.3 Environmental Consequences

3.8.3.1 No Action Alternative

Under the no action alternative, LASAN would not be granted a new easement and the Plant would be decommissioned. As a result, there would be no onsite construction or construction-related noise impacts. However, decommissioning of the Plant would include demolition of the Plant facilities and associated infrastructure, removal of the floodwalls and dikes, and the

restoration of topography to pre-project conditions. These activities would require the use of heavy construction equipment and trucks, which would result in short term noise and vibration impacts similar to those associated with the construction of the Proposed Action. These impacts would be temporary and less than significant. In the long term, decommissioning the Plant would result in a decrease of ambient noise levels in the immediate vicinity of the Plant.

3.8.3.2 Proposed Action

Noise During Construction. Construction of the project could generate noise at nearby receptors on a short-term, temporary, and fluctuating basis. Noise generated by construction activities would vary depending on the activity and the construction equipment type in use. Noise levels generated by typical construction activities are shown in Table 3-11.

Table 3-11 Typical Outdoor Construction Noise Levels

Construction	Method Noise Level at 50 ft. (dBA, equivalent continuous level [Leq])
Ground Clearing	84
Site Preparation	89
Foundations	78
Structural	85
Finishing	89
Source: EPA 1971	

The nearest noise sensitive receptors are residences on the north side of Victory Blvd., located at least 800 ft. north of the construction area, and residences on the east side of the I-405, which are a quarter mile east of the construction area. Noise from a point source is attenuated by 6 dBA with each doubling of distance (Caltrans 2013), therefore, the noise level at the nearest receptor 800 ft. away on Victory Blvd. would be attenuated by 24 dBA. Considering attenuation rates, the noisiest construction activity would result in a 65 dBA contribution to ambient noise levels at that location. When added to the existing noise levels at that location, this contribution would result in an ambient noise level of 78.6 dBA, an increase of 0.2 dBA. Because this impact is less than 5 dBA, the most stringent significance threshold, there would be no significant noise impacts associated with construction of the project. Furthermore, all construction actions would occur within the allowable construction periods identified in the City of Los Angeles Municipal Code, which restricts construction to the hours between 7:00 a.m. and 9:00 p.m., Monday-Friday, and 8:00 a.m. to 6:00 p.m. Saturday. In addition, the mitigation measures listed in Section 4 would be implemented throughout construction. Impacts would be less than significant.

Vibration during Construction. Construction activities have the potential to produce vibration levels that could be annoying or disturbing to humans and cause damage to structures. Based on the 800-ft. distance to the nearest residential receptor and the fact that project construction would not require a large amount of high-vibration activities and construction activities would be temporary, the Proposed Action would not be expected to generate high vibration levels at the nearest residences. In addition, the contractor would be required to implement the mitigation

measures described in Section 4 of this document. Therefore, impacts associated with vibration during construction would be less than significant.

Operation of the Plant would not change significantly with implementation of the project. Noise and vibration associated with the operation is not anticipated to change, therefore there would be no significant impacts associated with the operation of the project.

3.9 RECREATION

3.9.1 Baseline Conditions

Recreation is an authorized purpose of the Sepulveda Dam Reservoir per the FCA of 1944. This authorization includes recreational uses both within the Plant grounds (the Japanese Garden) and within park lands surrounding the Plant. The area immediately surrounding the Plant is classified as Recreation – Low Density under the Sepulveda Dam Basin Master Plan and is available for passive recreational uses.

Within the Plant, the Japanese Garden is a popular recreation destination and is known for its esthetic value. Designed by Dr. Koichi Kawana and constructed between 1980 and 1984, the Garden was officially dedicated on June 18, 1984. The Japanese Garden is named SuihoEn or "Garden of Water and Fragrance" and occupies 6.5 acres in the northwest corner of the Plant grounds (Figure 3-3). It contains reflecting ponds, walking paths, and extensive ornamental vegetation, and hosts annual events such as the Origami Festival and the Japanese Heritage Celebration. The garden hosts over 1,000 visitors per month (LASAN 2017). Water reclaimed by the Plant is used to irrigate the gardens and fill the ponds.

Park lands immediately surrounding the Plant include Woodley Park, with additional recreation parks and facilities nearby. Woodley Park is present to the west, south and east of the Plant. The east side of the Plant includes the Sepulveda Dam Reservoir Cricket Fields and the Woodley Park Archery Range. The Archery Range amenities include a partially enclosed 18-meter short range and a 90-meter-long range, which has 12 lanes and is equipped with compressed bales. The long range meets accessibility requirements of the Americans with Disabilities Act (ADA). Two cricket fields are on land leased to LASAN. The cricket field facilities include bleachers, a picnic area with picnic tables, restrooms, and a parking lot.

The lawns on the south and west sides of the Plant comprise Woodley Park proper and are available for picnicking, walking, bird watching, and passive recreational uses. Further to the west, recreational opportunities include fishing, bicycling, and golf. The wildlife area is located southeast of the Plant with trails, interpretive signs, parking and restrooms. Recreational facilities within the vicinity of the Plant are listed in Table 3-12.

Table 3-12 Recreational Facilities within 1 Mile of the Plant

Name	Type of Facility	Size	Location (Address, City)	Distance to Plant (miles)
Japanese Garden	Public Gardens	9 acres	6100 Woodley Ave. Van Nuys	0.0
Woodley Ave. Park, Cricket Fields, and Archery Range	Park	46 acres	6350 Woodley Ave. Van Nuys	0.0
Woodley Golf Course	Golf Course	18 holes, 6,803 yards	6331 Woodley Ave. Van Nuys	0.2
Sepulveda Basin Wildlife Area	Wildlife Reserve	175 acres	6350 Woodley Ave. Van Nuys	0.3
Encino Golf Course	Golf Course	18 holes, 6,863 yards	16821 Burbank Blvd. Encino	0.5
Anthony C. Beilenson Park	Park	87 acres	6300 Balboa Blvd. Van Nuys	0.6
Balboa Golf Course	Golf Course	18 holes, 6,359 yards	16821 Burbank Blvd. Encino	0.6
Hjelte Sports Center	Recreation fields	8 acres	16200 Burbank Blvd. Encino	0.9

3.9.2 Significance Thresholds

A significant impact would occur to recreation if the proposed project would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or would be accelerated;
- Include recreational facilities or require the construction or expansion of recreational facilities that might have a physical effect on the environment; or
- Permanently impede access to, or use of, recreational facilities in the vicinity of the Plant.

3.9.3 Environmental Consequences

3.9.3.1 No Action Alternative

Under the no action alternative, there would be no changes to existing recreational opportunities, recreation facilities, or the level of recreation within Sepulveda Dam Reservoir outside of the Plant lands. However, the maintenance and operation of the Japanese Garden would have to be assumed by the Corps or another entity, or it would need to be closed and demolished along with the rest of the facility. At current visitation rates, over 1,000 visitors a month would be turned away from the gardens, and the space would no longer be available to the community to use for public and private special events. Its removal would constitute a substantial loss of recreational

value to the community, and would be a significant impact as there is no substitute for this resource.

Following expiration of the lease, jurisdiction of the land would return to the Corps, who would manage lands in accordance with Corps policies and guidelines. Subsequent land use within the area that is currently leased to LASAN would be determined by the Corps. The land use could change if the Corps converted the land into a Corps-managed recreation area or granted an easement to another agency or entity, such as the City of Los Angeles Department of Recreation and Parks. Decommissioning of the Plant and a potential change in land use could result in the establishment of additional recreational resources, but would have a significant impact on existing recreational resources if the Japanese Garden were to be closed. As a result, recreational impacts associated with the no action alternative would be significant.

3.9.3.2 Proposed Action

During construction of the Proposed Action, most construction activity would take place within the Plant grounds, and at times this would partially affect the availability of parking for the Japanese Garden. Some construction would take place within the existing parking area for the gardens and Plant and could temporarily eliminate up to 10 parking spaces. In this instance, off-site parking for employees and visitors would be available. This would be a temporary change for parking, but would not affect the opening hours of the Japanese Garden. Parking would still be available along Woodley Ave., and off-site parking would only be needed temporarily during the construction period. In addition, notices and information on access to the garden would be provided through local media and signage throughout the project. With these mitigation measures in place, this reflects a less than significant impact. Details on mitigation measures are provided in Section 4 of this document.

All other construction would occur within the active Plant area, other than the proposed staging area north of the cricket field. This area is fenced and is not accessible to the public or used for recreation, therefore its use would not affect recreational opportunities. Impacts to recreation would be less than significant as a result of the Proposed Action.

3.10 SOCIOECONOMICS & ENVIRONMENTAL JUSTICE

3.10.1 Baseline Conditions

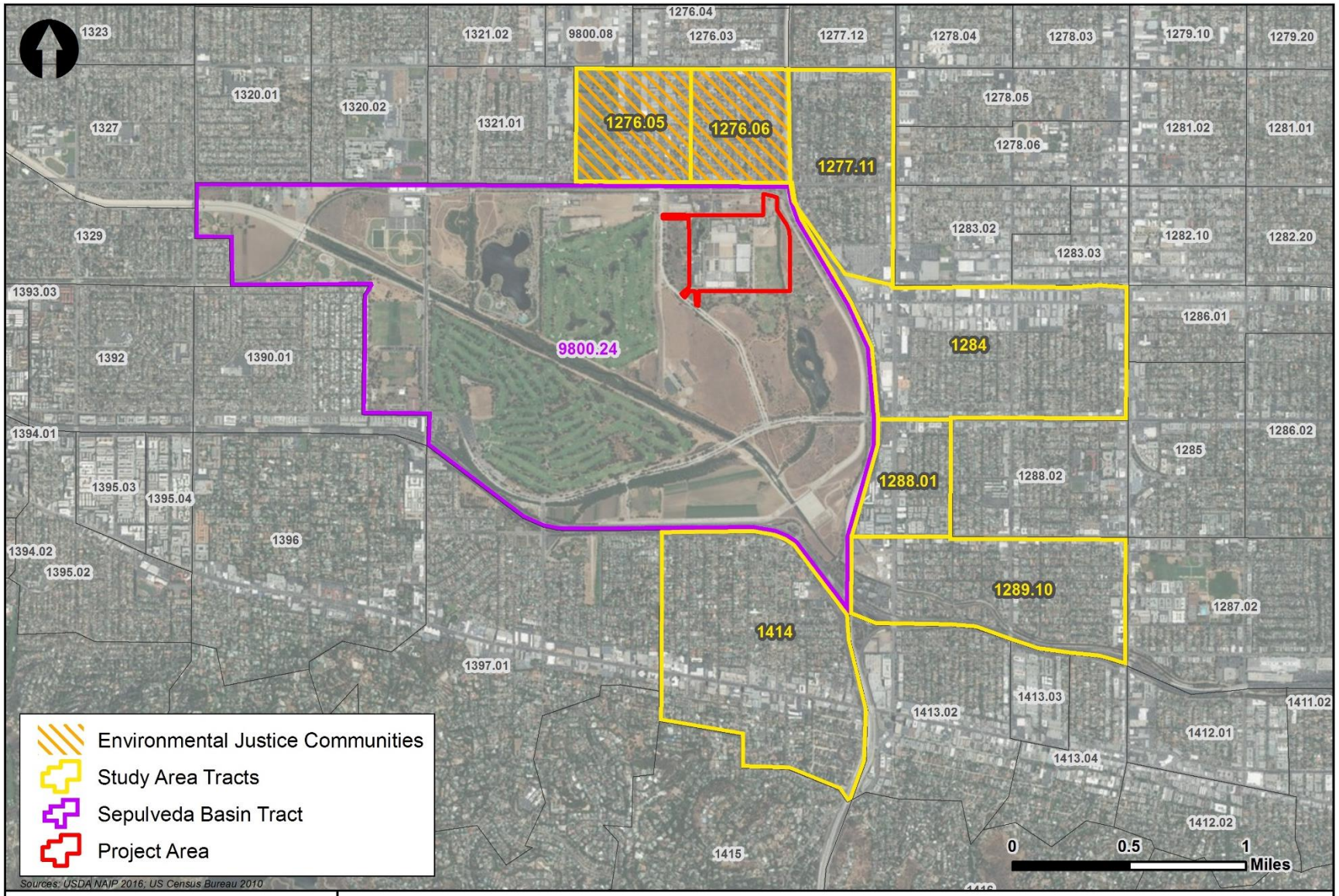
The study area is in a densely populated area of Los Angeles County and completely within the municipal limits of the City of Los Angeles. Socioeconomic and demographic data are presented by census tract in this section, taken from the 2010-2014 American Community Survey as well as other available regional and local data (U.S. Census Bureau 2014). Eight census tracts are found bordering or near the project area (Figure 3-1). These include Tracts 1276.05, 1276.06, 1277.11, 1284, 1288.01, 1289.10, 1397.01, and 1414.

Taken as a whole, the study area appears to be more affluent and less racially diverse than the County (Table 3-13). However, some tracts do not follow this trend. Tracts 1276.05, 1276.06, and 1277.11 have a higher proportion of Hispanic or Latino residents than the County and a greater proportion of residents reporting Some Other Race than the County (Table 3-13). Tract 1277.11 also has a higher proportion of African-American residents compared to the County-

wide value. Tract 1284 has lower median household income and median family income than the County, but per capita income is above the County's. Tract 1288.01 has a median household income which falls just under the County-wide median.

Table 3-13. Population by Race for Census Tracts in the Study Area

Tract	**1276.05**	**1276.06**	**1277.11**	**1284**	**1288.01**	**1289.1**	**1397.01**	**1414**	**Study Area Subtotal**	**Los Angeles County**
White	1,230	1,683	2,031	3,288	2,476	3,091	4,570	3,669	22,038	5,329,333
	34%	45.8%	57.4%	78.1%	75.3%	82.3%	87%	82.1%	69%	53%
Black or African American	180	142	360	152	248	141	73	106	1,402	832,253
	5%	3.9%	10.2%	3.6%	7.5%	3.8%	1.4%	2.4%	4%	8%
American Indian/ Alaska Native	12	0	0	41	0	0	3	0	56	54,409
	0.3%	0%	0%	1%	0%	0%	0.1%	0%	<1%	1%
Asian	408	408	209	386	314	217	530	374	2,846	1,394,349
	11.3%	11.1%	5.9%	9.2%	9.5%	5.8%	10.1%	8.4%	9%	14%
Native Hawaiian/ Other Pacific Islander	0	0	0	0	0	0	0	0	0	26,074
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Some other race	1,684	1,388	837	230	62	84	18	51	4,354	1,949,940
	46.5%	37.8%	23.7%	5.5%	1.9%	2.2%	0.3%	1.1%	14%	20%
Two or more races	106	53	102	114	188	222	56	271	1,112	387,845
	2.9%	1.4%	2.9%	2.7%	5.7%	5.9%	1.1%	6.1%	3%	4%
Hispanic or Latino	2,599	2,160	1,750	1,509	545	282	182	381	9,408	4,800,491
	71%*	58%*	49.4	35.%	16%	7%	3.5%	8.%	30%	48%



DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT

FIGURE 3-1 STUDY AREA CENSUS TRACTS

Tracts 1276.05 and 1276.06 have a greater proportion of minority residents than the rest of Los Angeles County, and are low-income compared to the county by all three metrics (per capita, household, family). Although the rate of unemployment in these tracts is similar to the rest of Los Angeles County, the rate of poverty is higher. Therefore, these two census tracts are considered to be environmental justice communities.

The percentage of the population identifying itself as white within the eight tracts was 69% in 2012, significantly higher than the percentage for the County (Table 3-13). 31% of the population identified itself as a race other than white, and 30% identified themselves as Hispanic/Latino of any race.

Income. Income in the study area is higher on average than the County for both per capita income and median household income (Table 3-14). However, individual tracts were below the County average for one or more income parameters.

Unemployment/Poverty. Only Tract 1284 has an unemployment rate for the civilian labor force which exceeds the County-wide rate (Table 3-14). While their unemployment rates are not higher than the County's, Tracts 1276.05 and 1276.06 appear to have a greater number of people in poverty, both when considering the percentage of all people in poverty, and the percentage of families in poverty.

Table 3-14 Income and Employment for Census Tracts in the Study Area

Tract	1276.05	1276.06	1277.11	1284	1288.01	1289.1	1397.01	1414	Study Area Average	Los Angeles County
Per Capita Income	$15,433	$21,899	$30,301	$31,223	$43,277	$51,160	$65,552	$63,721	**$42,080**	**$27,987**
Median Household Income	$36,605	$46,328	$68,750	$55,737	$54,917	$64,242	$123,507	$86,681	**$70,375**	**$55,870**
Median Family Income	$40,278	$46,094	$75,804	$53,092	$76,344	$105,125	$146,838	$165,809	**$93,215**	**$62,289**
% Un-employed[1]	9.1	9.1	7.7	14.7	7.2	6.2	6.2	8.7	**8.6**[2]	**11.0**
% All People in Poverty	25.9	21.5	16.5	7.8	11.1	5.6	3.7	12.2	**12.0**[2]	**18.0**
% Families in Poverty	27.4	16.9	13.5	0.8	11.6	2.6	1.0	8.4	**10.0**[2]	**15.0**

[1]Of the civilian labor force 16+ and want employment. [2]Weighted by tract population.

Environmental Justice. EO 12898 (1994) directs Federal agencies to address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Environmental justice concerns may arise from impacts on the natural and physical environment, such as human health or ecological impacts on minority populations, low-income populations, and Indian tribes, or from related social or economic impacts.

3.10.2 Significance Thresholds

Alternatives would cause significant impacts if they would:

- Have disproportionately high human health or environmental effects of their programs, policies, and activities on minority and, or low-income populations;
- Result in substantial population growth in the area surrounding the proposed project;
- Result in a substantial shift in population trends, an adverse effect on regional spending and earning patterns, or introduction of an overwhelming demand for public services or utilities;
- Impact a sector of the economy, productivity, competition, prices, or jobs; impact the welfare of minority or low-income populations; or
- Result in a substantial long-term decrease in local employment due to direct loss of jobs or an effect on the local economy that results in an indirect long-term loss of jobs.

3.10.3 Environmental Consequences

3.10.3.1 No Action Alternative

Under the no action alternative, a new easement would not be granted, no construction would occur within the lands currently leased to the Plant, and there would therefore be no construction-related impacts. Upon expiration of the current lease in 2019, the Plant would cease to operate as a treatment facility for the region. The functional capacity of the Plant would need to be shifted to other regional facilities, which do not have the capacity to incorporate and treat the additional flows. Property values in the area would be negatively affected if the Wildlife Lake and Balboa Lake were no longer supported. Decommissioning of the Plant and construction of facilities to replace its capacity would come at great cost to local governments and taxpayers. This would be a significant socioeconomic impact.

The closure and permanent decommissioning of the Plant would result in the loss of several hundred jobs currently provided by LASAN to its Plant employees under an operating budget of $16 million. This would result in a long-term decrease in local employment due to direct loss of jobs and a potential downturn in local spending, as those workers would no longer commute into the area. This would be a significant socioeconomic impact.

3.10.3.2 Proposed Action

None of the tracts in the study area fall below the per capita poverty guideline for 2017 of $12,060 (U.S. Census Bureau 2014). However, Hispanic or Latino minority populations are present at 50% or greater in 1276.05 and 1276.06. Census tract 1277.11 is slightly less than 50% minority. These populations could experience minor impacts from noise and traffic if construction vehicles pass through their neighborhoods. However, a traffic plan would be developed that would require general construction traffic routes to avoid these areas, and would limit off-site truck hauling on weekends to accommodate park user access and recreation-related traffic in adjacent areas. In addition, a comprehensive recreation mitigation plan would be developed in cooperation with local communities to address how all affected recreational opportunities would be maintained during the construction period. News releases would be published on a Corps' and/or non-Federal sponsor's website. With these mitigation measures in

place, there would be no significant impacts that would disproportionately affect these minority populations.

3.11 TRAFFIC AND CIRCULATION

3.11.1 Baseline Conditions

The project site is bounded to the north by Victory Blvd., and to the west by Woodley Ave. US-101, also known as the Ventura Freeway, is found to the south, and I-405, also known as the San Diego Freeway, is found to the east of the project site (Figure 3-2). I-405 and US-101 are classified as Congestion Management Plan (CMP) freeways within Los Angeles County. Victory Blvd. is classified as a CMP principal arterial between Topanga Canyon Blvd. to the west and State Route 170 (also known as the Hollywood Freeway) to the east. Regional and local roadways include:

- **I-405** is a regional freeway with 8 to 10 lanes traversing through the western parts of Los Angeles County that connects the San Fernando Valley with Orange County. I-405 is located approximately one-half mile east of the project site.
- **US-101** is a regional freeway traversing along the Pacific coastline through the northern and western parts of Los Angeles County, connecting Thousand Oaks, Oxnard, and points west with the southern San Fernando Valley, before terminating near downtown Los Angeles. US-101 is located approximately 1.2 miles south of the project site.
- **Victory Blvd**. provides east-west local and regional access between West Hills and Burbank. It has three eastbound and 2 westbound lanes. Victory Blvd. can be accessed from the Plant via its intersections with Woodley Ave. and Densmore Ave. This roadway is located approximately one-quarter mile north of the project site.
- **Woodley Ave**. provides north-south local and regional access from Granada Hills to the north, through Van Nuys, to Sepulveda Dam Reservoir. It has two to four lanes depending on the location. Immediate local access is available from Woodley Ave. directly to the Plant site from a southwest driveway between Densmore Ave. and Burbank Blvd. Woodley Ave. is located approximately 0.25 miles west of the project site.

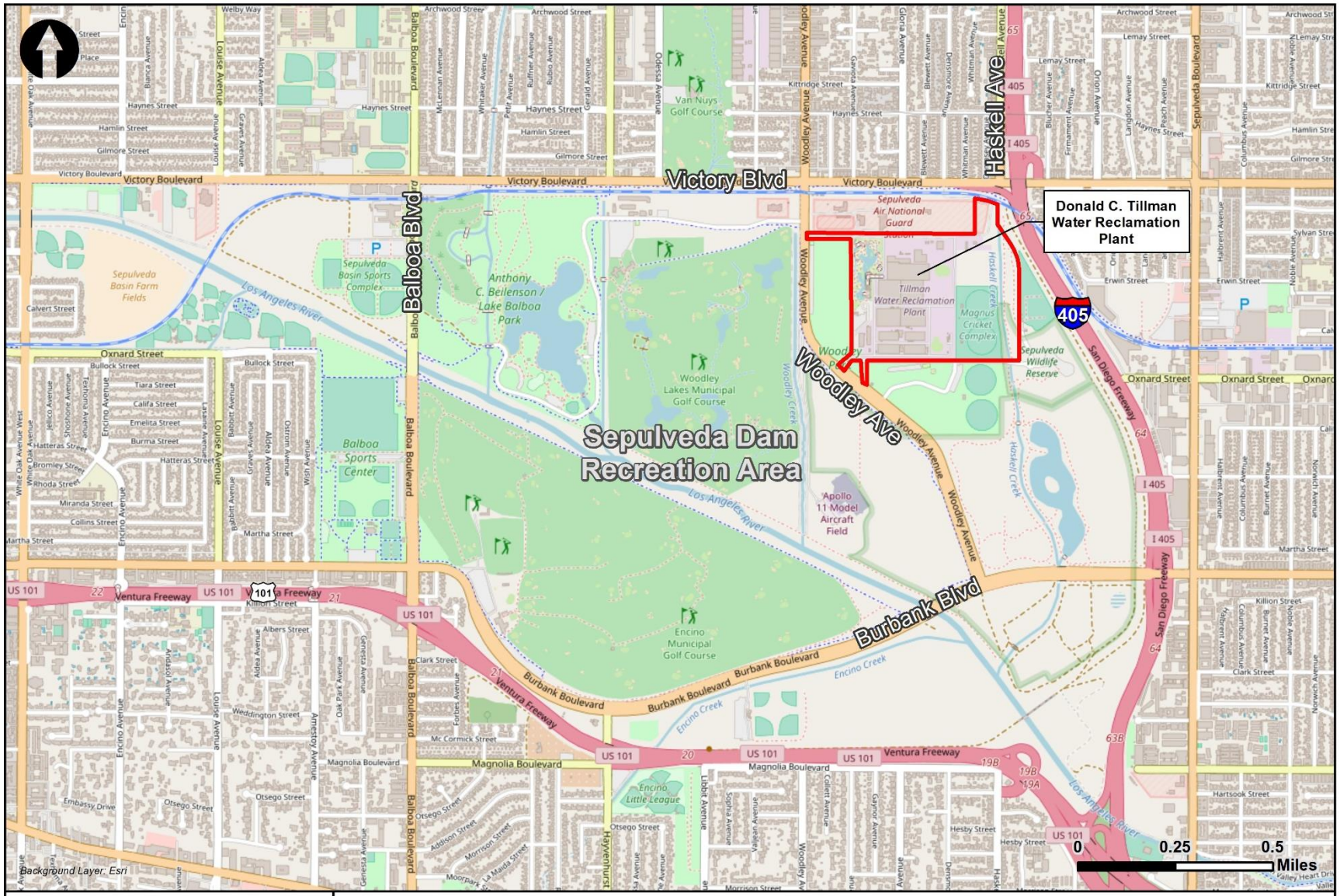
LOS is a measure used to rate intersections, based on their traffic conditions. It is a qualitative description of traffic flow based on factors including speed, travel time, delay, and freedom of maneuver. Six levels of service are defined for each intersection, varying from LOS A to LOS F. LOS A indicates that traffic flows freely, with little or no delay and LOS F indicates that traffic demand exceeds the capacity, generally resulting in long queues and delays. LOS definitions are provided in Table 3-15.

Volume-to-capacity ratio (V/C) is another measure of intersection or roadway performance expressed as a ratio of the volume of traffic to the total capacity to accommodate traffic. For example, a V/C of 0.5 indicates that a roadway or intersection is operating at half its capacity, while a V/C of 1 indicates that a roadway or intersection is operating at capacity. V/C and corresponding LOS are shown in Table 3-15.

Major intersections and roadway segments of designated CMP roadways located in the vicinity of the project site operated at LOS A and LOS F during Year 2016 a.m. and p.m. peak hours (Koa Corporation 2016). The LOS at various intersections and roadway segments near the project site are shown in Table 3-16.

Parking. The Plant's parking plan indicates that there are 256 parking spaces available and a current demand of 180 spaces.

Public Transit. The project area is served by public transit buses operated by the Los Angeles County Metropolitan Transportation Authority (Metro). The project site is generally serviced by the Orange Line Busway, found to the north of the site. Metro lines 237 and 164 use the busway. There are no other public transit facilities that service this area.



DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT

Legend

Project Area

FIGURE 3-2 TRANSPORTATION

Table 3-15 Level of Service Criteria for Intersections

LOS	Description of Operations	V/C
A	LOS A describes primarily free-flow operations at average travel speeds, usually about 90% of the free-flow speed for the arterial classification. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.	0.00-.060
B	LOS B represents reasonably unimpeded operations at average travel speeds, usually about 70% of the free-flow speed for the arterial classification. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.	0.61-0.70
C	LOS C represents stable operations; however, ability to maneuver and change lanes in mid-block locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average speeds of about 50% of the average free-flow speed for the arterial classification. Motorists will experience appreciable tension while driving.	0.71-.080
D	LOS D borders on a range in which small increases in flow may cause a substantial increase in delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors. Average travel speeds are about 40% of free-flow speed.	0.81-.090
E	LOS E is characterized by significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.	0.91-1.00
F	LOS F characterizes arterial flow at extremely low speeds below one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays and extensive queuing. Adverse progression is frequently a contributor to this condition.	1.01 or greater

Table 3-16 Current Intersection and Roadway Performance in the Study Area

Intersection or Street Segment	a.m. Peak		p.m. Peak	
	V/C	LOS	V/C	LOS
Intersections				
Woodley Ave. and Victory Blvd.	1.107	F	0.985	E
Densmore Ave. and Victory Blvd.	0.650	B	0.564	A
Haskell Ave. and Victory Blvd.	1.071	F	1.044	F
I-405 NB Ramps and Victory Blvd.	0.734	C	0.760	C
Street Segments				
Haskell Ave. between Victory Blvd./ Orange Line Busway	0.278	A	0.172	A
Victory Blvd. between Woodley Ave. and I-405	0.891	D	0.913	E

Pedestrian (including ADA) and Bicycles. Pedestrian access is provided to the Japanese Garden on a series of paved paths. These paths are ADA-compliant and allow access for visitors in wheelchairs. The operations area of the Plant is also served by paved paths and there is a paved path along the tops of the dikes. However, the operations area is not open to public access. A bike lane is found along Woodley Ave., providing bicycle access to the Plant.

3.11.2 Significance Thresholds

CEQA criteria have been used to determine the level of effect of the proposed project. The proposed project would result in significant effects to traffic and circulation if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; or
- Result in inadequate emergency access.

The City of Los Angeles Department of Transportation (LADOT) has established specific thresholds for significant project related increases in the V/C of signalized study intersections, as shown in Table 3-17.

Table 3-17 LADOT Significance Criteria for Operational Traffic Increases

LOS	Final V/C[1]	Project Related V/C Increase
C	0.701 to 0.800	Greater than or equal to 0.040
D	0.801 to 0.900	Greater than or equal to 0.020
E and F	0.901 or greater	Greater than or equal to 0.010

Note: V/C = volume-to-capacity ratio.
[1]Final V/C is the V/C ratio at an intersection, considering impacts from the project, ambient and related project growth, and without proposed traffic impact mitigations.

These increases are meant to apply to projects that would permanently increase traffic volumes (for example, development projects), not construction projects that would only increase traffic temporarily. Nevertheless, to quantify the impacts of construction of the AWPF on performance of the roadway system, construction traffic increases were compared to the "project related V/C increase" threshold (the "final V/C" threshold was not used for comparison) for two scenarios:

- Existing V/C compared to existing with-project V/C
- Future baseline V/C compared to future with-project V/C

The criteria shown in Table 3-17 are applied as follows. For an intersection or roadway operating at LOS C, a change less than 0.040 would be less than significant while a change greater than or

equal to 0.040 would be significant. The same logic is used for intersections or roadways operating at LOS D, E, or F. Impacts to intersections or roadways operating at LOS A or B would be significant if project-related traffic caused the LOS to degrade to LOS C or lower.

3.11.3 Environmental Consequences

3.11.3.1 No Action Alternative

Under the no action alternative, decommissioning of the Plant would include demolition of the Plant facilities and associated infrastructure, removal of the floodwalls and dikes, and the restoration of topography to pre-project conditions. These activities would require the use of heavy construction equipment onsite and the use of trucks to remove material to a regional landfill, which would add truck trips and worker vehicle trips to area roads. These impacts would be temporary and less than significant, and would likely be similar to the impacts that would occur under the Proposed Action. In the long term, traffic associated with Plant operations would cease, since the Plant would no longer be operational, but this reduction in traffic would be insignificant relative to the existing volume of traffic on local roads. This impact would be less than significant.

3.11.3.2 Proposed Action

Dike Improvements. As described in Section 2.2.2.1, construction of the dike improvements would add up to 40 one-way worker vehicle trips and 15 one-way truck trips per weekday to area roads. Project-associated trips would likely peak during the early to middle portion of the one-year construction period, with lower numbers later in the construction period.

Although truck trips would be scheduled to avoid peak morning and evening travel hours to the extent practicable, even if all worker and truck trips occurred during peak morning and evening travel hours, the difference in traffic volumes and travel times on area roadways would not be perceptible. Therefore, there would be no impact on the traffic circulation system and no conflict with plans, ordinances, or policies related to circulation system performance or the Los Angeles County Congestion Management Program.

During construction, one lane of the main entrance to the Plant and Japanese Garden at 6100 Woodley Ave would temporarily be closed for installation of the flood gates. Construction would occur in the closed lane, while traffic would be allowed to pass in the open lane. When construction is completed on the closed lane, it would be reopened and the other lane would be closed. These closures would last approximately 1 week each. Flaggers or signage would be implemented to ensure traffic would flow smoothly around the work area and to ensure access to parking areas. During periods of heavy park use, including on weekends or during special events, deliveries of materials to the site by large trucks will be restricted. For these reasons, impacts on traffic and parking would be less than significant.

Overall, with the traffic and circulation mitigation measures detailed in Section 4 in place, construction associated with dike rehabilitation would not be anticipated to affect parking, public transit, pedestrian or bicycling facilities, or emergency access in the project vicinity.

Advanced Water Purification Facility. Construction of the AWPF would add worker vehicles and truck trips to area roads as described in Section 2.2.2.2. A traffic study was prepared in

conformance with the procedures mandated by the Los Angeles County Congestion Management Program to assess impacts to intersections and roadways near the project (Koa Corporation 2016). The traffic study identified the following intersections and roadway segments as those most affected by construction traffic:

- Intersection of Woodley Ave. and Victory Blvd.
- Intersection of Densmore Ave. and Victory Blvd.
- Intersection of Haskell Ave. and Victory Blvd.
- Intersection of I-405 NB Ramps and Victory Blvd.
- Haskell Ave. between Victory Blvd. and the Orange Line Busway
- Victory Blvd. between Woodley Ave. and I-405

Traffic counts were conducted at these intersections and roadways to establish baseline traffic volumes and associated LOS and V/C measurements. These baseline measurements are referred to as the "existing" conditions. The traffic study also looked at projected population growth and development projects planned in the area to determine future baseline traffic volumes in 2022 and associated LOS and V/C measurements. These are referred to as "future" conditions and approximate ambient traffic volumes in 2022 near the end of the construction period.

The traffic study then assessed the amount of project-generated traffic and which intersections and roadway segments that traffic would be most likely to traverse to establish what is referred to as "with project" conditions. The "with project" conditions were then added to the existing and future baselines to establish the "existing with project" and "future with project" LOS and V/C. The existing and future with project LOS and V/C were then compared to the existing and future baselines to determine the project-related change in LOS and V/C.

The results of these calculations and comparisons are shown in Tables 3-18 to 3-21. As shown in these tables, project-related traffic would only cause one change in LOS. LOS on Haskell Ave. between Victory Blvd. and the Orange Line Busway would change from LOS A to LOS B during the a.m. peak travel period. Because LOS B is still considered reasonably unimpeded circulation at average travel speeds, this impact would be less than significant. V/C would increase at every intersection and roadway studied. However, the increase in V/C would not exceed the LADOT project related V/C increase (see Table 3-17) for the associated LOS. Therefore, impacts would be less than significant.

Prior to initiating construction, a detailed construction plan, traffic control plan, and health and safety plan would be developed. Development of these plans is a standard LADPW procedural requirement, but is also considered a mitigation measure since the plans would help minimize the impact of project construction on traffic and circulation. The plans would detail the necessary permits and authorizations, the sequencing of construction activities, the procedures for safely implementing construction operations (such as signage), methods of complying with applicable federal, state, and local regulations, and more.

At this location, Haskell Ave. allows access to the northeast part of the Plant, but not to the rest of the reservoir outside of the Plant. For a portion of the construction period, one lane would be closed along Haskell Ave. This would reduce traffic flow to one-way since Haskell Ave. is a two-lane road. Lane closures and methods for controlling traffic during lane closures would be detailed in LADPW's construction plan and traffic control plans, which would be submitted to

the LADOT and the City of Los Angeles Department of Public Works, Bureau of Engineering (LABOE) for review and approval. LADPW would obtain the necessary roadway encroachment permits for closures. Furthermore, during periods of heavy park use, including on weekends or during special events, deliveries of materials to the site by large trucks will be restricted.

LADPW is a member of the California Joint Utility Traffic Control Committee, which in 1996 published the *Work Area Protection and Traffic Control Manual*. LADWP would follow the recommendations in the manual regarding basic standards for the safe movement of traffic upon highways and streets in accordance with Section 21400 of the California Vehicle Code. These recommendations include provisions for safe access of police, fire, and other rescue vehicles during construction. By following the provisions for emergency access in the manual, the project would not result in inadequate emergency, so effects would be less than significant.

Construction activities would typically occur from 7:00 am to 3:30 pm; however, the City of Los Angeles Mayor's Directive Number (No.) 2 prohibits construction on selected roads between 6:00 am and 9:00 am and between 3:30 pm and 7:00 pm. The project would comply with this directive.

Table 3-18 Existing and Existing with-Project LOS in the Study Area

Intersection or Street Segment	Existing		Existing with-Project		Project-Related Change	
	A.M. Peak LOS	P.M. Peak LOS	A.M. Peak LOS	P.M. Peak LOS	A.M. Peak LOS	P.M. Peak LOS
Intersections						
Woodley Ave. and Victory Blvd.	F	E	F	E	None	None
Densmore Ave. and Victory Blvd.	B	A	B	A	None	None
Haskell Ave. and Victory Blvd.	F	F	F	F	None	None
I-405 NB Ramps and Victory Blvd.	C	C	C	C	None	None
Street Segments						
Haskell Ave. between Victory Blvd./ Orange Line Busway	A	A	A	A	None	None
Victory Blvd. between Woodley Ave. and I-405	D	E	D	E	None	None

Source: Koa Corporation 2016
Note: LOS = level of service

Table 3-19 Existing and Existing with-Project Volume-to-Capacity Ratio in the Study Area

Intersection or Street Segment	Existing		Existing with-Project		Project-Related Change	
	A.M. Peak V/C	P.M. Peak V/C	A.M. Peak V/C	P.M. Peak V/C	A.M. Peak V/C / Exceeds LADOT Criterion (Yes or No)	P.M. Peak V/C / Exceeds LADOT Criterion (Yes or No)
Intersections						
Woodley Ave. and Victory Blvd.	1.107	0.985	1.109	0.987	0.002 / No	0.002 / No
Densmore Ave. and Victory Blvd.	0.650	0.564	0.655	0.597	0.005 / No	0.033 / No
Haskell Ave. and Victory Blvd.	1.071	1.044	1.079	1.045	0.008 / No	0.001 / No
I-405 NB Ramps and Victory Blvd.	0.734	0.760	0.739	0.768	0.005 / No	0.008 / No
Street Segments						
Haskell Ave. between Victory Blvd./ Orange Line Busway	0.278	0.172	0.556	0.344	0.278 / No	0.172 / No
Victory Blvd. between Woodley Ave. and I-405	0.891	0.913	0.899	0.921	0.008 / No	0.008 / No

Source: Koa Corporation 2016
Note: V/C = volume-to-capacity ratio

Table 3-20 Future and Future with-Project LOS in the Study Area

Intersection or Street Segment	Future		Future with-Project		Project-Related Change	
	A.M. Peak LOS	P.M. Peak LOS	A.M. Peak LOS	P.M. Peak LOS	A.M. Peak LOS	P.M. Peak LOS
Intersections						
Woodley Ave. and Victory Blvd.	F	F	F	F	None	None
Densmore Ave. and Victory Blvd.	C	B	C	B	None	None
Haskell Ave. and Victory Blvd.	F	F	F	F	None	None
I-405 NB Ramps and Victory Blvd.	D	D	D	D	None	None
Street Segments						
Haskell Ave. between Victory Blvd./ Orange Line Busway	A	A	B	A	A to B	None
Victory Blvd. between Woodley Ave. and I-405	F	F	F	F	None	None

Source: Koa Corporation 2016
Note: LOS = level of service

Table 3-21 Future and Future with-Project Volume-to-Capacity Ratio in the Study Area

Intersection or Street Segment	Future		Future with-Project		Project-Related Change	
	A.M. Peak V/C	P.M. Peak V/C	A.M. Peak V/C	P.M. Peak V/C	A.M. Peak V/C / Exceeds LADOT Criterion (Yes or No)	P.M. Peak V/C / Exceeds LADOT Criterion (Yes or No)
Intersections						
Woodley Ave. and Victory Blvd.	1.272	1.132	1.274	1.133	0.002 / No	0.001 / No
Densmore Ave. and Victory Blvd.	0.747	0.648	0.751	0.681	0.004 / No	0.033 / No
Haskell Ave. and Victory Blvd.	1.231	1.199	1.238	1.200	0.007 / No	0.001 / No
I-405 NB Ramps and Victory Blvd.	0.843	0.873	0.849	0.881	0.006 / No	0.008 / No
Street Segments						
Haskell Ave. between Victory Blvd./ Orange Line Busway	0.319	0.198	0.639	0.395	0.320 / No	0.197 / No
Victory Blvd. between Woodley Ave. and I-405	1.024	1.049	1.032	1.057	0.008 / No	0.008 / No

Source: Koa Corporation 2016
Note: V/C = volume-to-capacity ratio

With implementation of the mitigation measures described here and detailed in Section 4 of this document, construction-related impacts to traffic and circulation would be less than significant.

After construction, operation of the Plant would require approximately 16 additional personnel. Assuming each of these workers drives to work alone, the project would add up to 32 one-way trips to area streets each weekday. Plant operation would also require approximately 7 delivery trucks per month, or 14 one-way trips per month. Even if all of these trips occurred during peak morning and evening travel hours, the difference in traffic volumes and travel times on area roadways would not be perceptible. Therefore, there would be no long-term impact on the traffic circulation system and no conflict with plans, ordinances, or policies related to circulation system performance or the Los Angeles County Congestion Management Program.

3.12 PUBLIC SERVICES

3.12.1 Environmental Setting

The Plant is located within the service area of City of Los Angeles Fire Department (LAFD) and the City of Los Angeles Police Department (LAPD). The Plant is served by the following LAFD stations:

- Fire Station No. 88, located at 5101 Sepulveda Blvd., is approximately 2 miles from the Plant.
- Fire Station No. 39, located at 14415 Sylvan Street, is approximately 3 miles from the Plant.

As the Plant is a City of Los Angeles facility, the LAPD has officers staffed at the Plant. No schools or library are located within the vicinity of the Plant. The surrounding parklands are maintained by the Corps.

Emergency room availability is provided on a 24-hour basis by two medical hospitals offering full service emergency care, including:

- Valley Presbyterian Hospital, located at 15107 Vanowen Street, approximately 1.5 miles from the Plant.
- Encino Hospital Medical Center, located at 16237 Ventura Blvd., approximately 2.7 miles from the Plant.

3.12.2 Thresholds of Significance

A significant impact to public services would occur if construction and/or operation of the alternatives would result in:

- The need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any public services (i.e., fire, police, schools, libraries); or
- Increased police or fire department response times, or impaired implementation of an adopted emergency response plan or emergency evacuation plan.

3.12.3 Environmental Consequences

3.12.3.1 No Action Alternative

Under the no action alternative, LASAN would not be granted a new easement and the Plant would be decommissioned. There would be no onsite construction or construction-related impacts to public services. However, decommissioning of the Plant would include demolition of the Plant facilities and associated infrastructure, removal of the floodwalls and dikes, and the restoration of topography to pre-project conditions. These activities would require the use of heavy construction equipment and trucks onsite. This could increase the potential for emergency response needs, if injury accidents, fires or spills were to occur. However, these impacts would be temporary and less than significant, as all current safety precautions required by the Plant and any company hired to decommission the Plant would be implemented. Once the Plant was fully decommissioned, this area would no longer require emergency services associated with the operation of a water treatment plant.

3.12.3.2 Proposed Action

During construction of the Proposed Action, additional equipment and up to 45 workers would be onsite. This could increase the potential for emergency response needs, if injury accidents, fires or spills were to occur. Construction activities would last for approximately four years and during that time would experience the presence of numerous pieces of large equipment, truck trips, redistribution of traffic patterns within the parking lot of the Plant, and additional personnel onsite. However, measures would be taken to ensure the avoidance or minimization of additional risks. The Plant Response Plan puts into place the safety measures needed to protect personnel from accidents that may be man-made or natural. This safety plan would not be undermined by construction activities, as all construction contractors would be required to adhere to it. In addition, the contractor would be required to develop a Public Safety Management Plan, a Worker Health and Safety Plan, and a Communication Plan for communication with local authorities. With implementation of these and other mitigation measures detailed in Section 4, impacts to public services in the area would be less than significant.

Operation of the new facilities would occur entirely within the existing Plant grounds. New facilities would not require additional police, fire, or medical emergency services and would not disrupt the response times or implementation of any emergency response or evaluation plan. The Proposed Action would not result in increased numbers of residents, and would not increase the demand for libraries, schools, parks, or other public facilities.

3.13 UTILITIES

3.13.1 Baseline Conditions

No utilities or pipelines are known to penetrate through the dikes, although several pipelines do pass beneath the dike embankments. Information on these pipelines taken from as-built plans is outlined below:

- A 108-inch diameter reinforced concrete pipe trends underneath the western portion of the southern dike with an invert elevation of roughly 687 ft. This line is the major outlet for the water reclamation facility.
- Two ductile iron pipes, one 30 inches in diameter and one 54 inches in diameter, cross underneath the eastern end of the southern dike at an invert elevation varying from roughly 693 to 691 ft. (the pipes are sloped at an angle of approximately 2.2% beneath the dike). These lines carry reclaimed water.
- A 24-inch diameter pipe of unknown material crosses beneath the central portion of the southern dike with an invert elevation of approximately 694 ft. This line carries reclaimed water to a nearby lake.
- A 16-inch diameter waterline of unknown material crosses beneath the central portion of the southern dike at an invert elevation of approximately 698 ft. This pipeline provides potable water to the Plant, provided by LADWP.

Primary utility features that are in place to serve the Plant are provided by the City of Los Angeles, and include:

- **Wastewater:** although the Plant is a wastewater treatment plant, biosolids are released back into the City of Los Angeles sewer system for treatment downstream at HWRP.
- **Solid Waste*:*** collection is provided by the City of Los Angeles and is disposed at any of the three landfills that serve the City. Hazardous waste is disposed of at the Kettleman Hills Landfill. LASAN currently disposes of refuse at the Sunshine Canyon Landfill, located in the community of Sylmar, City of Los Angeles, approximately 9.6 miles north of the Plant.
- **Electricity*:*** is provided by LADWP through overhead lines.
- **Natural gas*:*** is used at the Plant for various functions related to its primary mission.

3.13.2 Significance Thresholds

The proposed project and alternatives would cause a significant impact if they would result in the following:

- A substantial increase in the consumption of resources, disruption in the use of utilities, or generation of outputs that compromise the provision of adequate utilities services, including water, wastewater, solid waste, electricity and natural gas, to Sepulveda Dam Reservoir and greater Los Angeles area.

3.13.3 Environmental Consequences

3.13.3.1 No Action Alternative

Under the no action alternative, the functional capacity of the Plant would need to be absorbed by other wastewater facilities found in the area. Since all other wastewater plants that operate as part of the same system as the Plant are operating at or near capacity, it is unlikely that they would be able to absorb and treat the additional amount of wastewater that is currently treated at the Plant, therefore this impact would be significant.

Numerous pipes and other infrastructure that supply water and electricity to the Plant would be capped at the boundaries of the Plant, and the utilities found within the Plant would be removed. Likewise, pipes that send treated water to the Los Angeles River and lakes within Sepulveda Basin would be removed within the Plant, and capped at the boundaries. This infrastructure would be demolished and hauled to a local landfill with capacity to accept it.

3.13.3.2 Proposed Action

Under this alternative, LASAN would be required to prepare an erosion control plan and a Stormwater Pollution Prevention Plan (SWPPP) outlining the Best Management Practices (BMPs) they would implement to avoid or minimize runoff discharge. Any wastewater discharged during construction or operations would be in compliance with the Plant's National Pollutant Discharge Elimination System (NPDES) permit requirements.

Increased amounts of water would be used during construction for dust control. This type of use would be limited and temporary, and would not require construction of additional facilities to import or treat water. Small increases in water use and wastewater generation would occur during construction as a result of temporarily increased number of workers at the Plant. This increase would be relatively minimal, and temporary. In accordance with mitigation measure UTIL-1, there would be no interruption to or reduction of water treatment services provided by the Plant.

Approximately 48,000 cy of material would need to be excavated. About 12,000 cy would be reused onsite during project construction and 36,000 cy hauled off site for disposal. Although any recyclable materials including asphalt, concrete, or clean soils would be diverted to a recycling facility, it is assumed that the majority of the excavated materials would be sent to an area landfill. Landfills serving the project area, including the Sunshine Canyon Landfill, accept construction materials, and have remaining capacity for this amount of material.

Impacts to utilities as a result of construction of the Proposed Action would be less than significant.

Operation of the Plant would result in a nominal increase in water use as result of approximately 16 additional workers. However, this amount would not require additional water supply or treatment facilities. Existing resources would be sufficient to serve the operations of the Plant.

3.14 ESTHETICS

3.14.1 Baseline Conditions

The Plant is located in the northeast corner of the Sepulveda Dam Reservoir, where esthetic conditions are driven by four dominant characteristics; the industrial nature of the Plant facilities, the natural beauty of the Japanese Garden, the recreational uses of the surrounding lands, and the highly developed surrounding lands.

The Plant itself is a well-organized industrial facility, with relatively low-profile gray buildings placed closely together to minimize the Plant's overall footprint. Facilities range from large square footage buildings of one to two stories, to low-profile treatment pond facilities, to

retention basins with concrete walls and bottoms. Parking lots, roadways, and walls also comprise portions of the Plant grounds and contribute to the industrial appearance.

Green areas are also present within the Plant grounds, including grassed retention basins, treed and grassy margins between buildings, and the Japanese Garden.

Lands to the west and south of the Plant include Woodley Park, which includes a field with grass and trees. Lands to the east include the Woodley Park cricket fields and archery range, as well as the Sepulveda Basin Wildlife Reserve. To the north is the Orange Line Busway and Victory Blvd. The Sepulveda Basin Wildlife Reserve was also noted as having high quality esthetic and environmental value in the Sepulveda Basin Master Plan.

The Plant is surrounded on three sides by a raised earthen dike or flood wall, or combination of both, which varies in height from 6 to 10 ft. The southern boundary of the Plant grounds is bordered by a rock wall with a vegetated dike. The wall prevents the Plant from being viewed from access roads, parking lots, recreational fields, and Woodley Ave. The southern earthen dike has a paved path for bikes and pedestrians, but is within the operations area, which is not open to public access. A wall without an earthen dike comprises the border of the Plant to the west. This wall limits views from surrounding park areas and Woodley Ave., allowing only the tops of the buildings and trees within the Plant grounds to be seen. The east border has an earthen dike with a chain link fence. Only the tops of the buildings can be seen from the east. The paved pedestrian and bike path continues from the southern dike onto the top of the eastern earthen dike. This section of the path is also not available for public use, as it is within the restricted operations area of the Plant. Earthen dikes are generally vegetated with drought-tolerant shrubs and trees. The Plant is operated continuously and, for safety and security purposes, lighting is provided 24 hours a day.

3.14.2 Significance Thresholds

The proposed project and alternatives would cause a significant impact if they would result in the following:

- Substantia effects on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view of a state scenic highway;
- Substantial degradation of existing visual character or quality of a site and its surroundings; or
- Creation of a new source of substantial light or glare that would affect day or nighttime views in the area.

3.14.3 Environmental Consequences

3.14.3.1 No Action Alternative

Under the no action alternative, removal of the Plant facilities and subsequent grading and re-vegetation of the land would alter the visual condition of the Sepulveda Dam Reservoir. Although the visual condition of the industrial portions of the Plant would be improved by

demolition, recontouring, and revegetation, decommissioning of the Plant would have additional impacts on visual resources within and surrounding the Plant. Unless other water sources were identified and another entity or agency assumed operation of the resources, the Japanese Garden would be lost as an esthetic resource, as would the Japanese Garden Lake, Wildlife Lake, and Lake Balboa, which rely on recycled water for filling. Loss of these resources would constitute a substantial degradation of the visual character and quality of this part of Sepulveda Basin, and the impacts to visual resources would be significant.

3.14.3.2 Proposed Action

During construction of the new facilities and rehabilitation of the dikes, which would take approximately four years, the visual condition of the site would change. There would be large, heavy construction equipment onsite throughout most of that time, as well as additional workers. Most construction activities would occur within the Plant, which is mostly hidden from public view by dikes. Within the Plant, viewer groups that would be affected include Plant employees and visitors to the Japanese Garden. Mitigation of visual effects would include measures identified in Section 4 such as dust control, concentrating large equipment onto staging areas when not in use, establishing a minimum buffer zone between the staging area and Haskell Creek, and using fenced screening as necessary. Dike rehabilitation would be the most visible activity, and would be limited to a one-year period. Those affected would include Plant employees, visitors to the Plant and to the surrounding recreation areas, as well as those traveling along Woodley Ave. During brine line construction, equipment and workers could also be visible from Victory Blvd. However, construction effects would be temporary, and in conjunction with visual mitigation measures, the impacts to esthetics would be less than significant.

Following construction, the site would be returned to its original visual condition. The staging area and borrow pit would be restored to their former condition. The presence of new facilities within the Plant would not change the existing visual character of the site, remaining industrial in appearance. New dikes would look similar to old dikes, but would be slightly higher in elevation and would have a low concrete wall on the top. Light and glare would also not substantially increase from existing conditions. The Plant is already lighted for industrial uses and safety and new facilities would have similar lighting. No scenic vistas or scenic resources would be affected by the final configuration or operation of the Plant.

3.15 WATER QUALITY AND HYDROLOGY

3.15.1 Baseline Conditions

Watershed. The drainage area of the Los Angeles River and its tributaries above the Sepulveda Dam Reservoir is 152 square miles, comprising the northwestern most portion of the Los Angeles River watershed, and covering virtually the entire San Fernando Valley and surrounding mountain slopes west of I-405. The drainage area boundary on the south is formed by the Santa Monica Mountains; on the west, by the Simi Hills; on the north, by the Santa Susana Mountains; and on the east by a line extending approximately north and south across the valley and generally along I-405. The headwaters of the Los Angeles River are in the Simi Hills on the west, formed by Chatsworth Creek, Dayton Canyon Wash, Bell Creek, and Arroyo Calabasas. The longest watercourse above the Sepulveda Dam Reservoir is formed by Devil Canyon-Brown's Canyon-

Los Angeles River reaches which is about 19 miles long with an average slope of 143 ft. per mile. The proposed project area is located within the 100-year floodplain of the Los Angeles River (Tetra Tech 2013a).

Hydrology. The climate of the drainage area above the Sepulveda Dam Reservoir is generally temperate and semi-arid, with warm dry summers and mild, moist winters. Within the Sepulveda Dam Reservoir drainage itself, normal annual precipitation ranges from less than 15 inches over much of the valley floor to more than 22 inches atop both the Santa Susana Mountains to the north and the Santa Monica Mountains to the south. There can be great year-to-year variability in monthly as well as annual precipitation. The minimum observed monthly precipitation values for rain gage stations in the watershed are at most 0.01 or 0.02 inches for every month of the year (WRCC 2010).

Most precipitation in southern California coastal drainages occurs during the cool season, primarily from November through early April, as mid-latitude cyclones from the northern Pacific Ocean occasionally move across the west coast of the United Sates and bring precipitation to southern California. Most of these storms are of the general winter type, with hours of light to moderate steady precipitation, but with occasional heavy showers or thunderstorms.

All of the major inflow and impoundment events in the history of the Sepulveda Dam Reservoir have been the result of general winter storms. Runoff from the watershed is characterized by high flood peaks of short duration that result from high-intensity rainfall on the urban watershed. Flood events are typically of less than 12 hours duration and nearly always less than 48 hours in duration. Inflow rates drop rapidly between storms. Summer flows in the Los Angeles River average 100 cubic feet per second (cfs) due to outflow from the Plant.

Haskell Creek is a small, intermittent stream found outside the eastern boundary of the Plant, near the onramp to the I-405 freeway. Within the dikes, the Japanese Garden Lake is in the northwest corner of the Plant, within the Japanese Garden. The Los Angeles River is approximately 0.5 mile south of the Plant.

Groundwater. The Plant is located on top of the San Fernando Valley Groundwater Basin, which consists of water-bearing sediment. The 226 square-mile groundwater basin boundaries include the Tujunga Valley, Brown's Canyon, and the alluvial areas of the Verdugo Mountains close to La Crescenta and Eagle Rock. The basin's groundwater is confined and bounded in the south by the Santa Monica Mountains and the Chalk Hills, in the west by Simi Valley, and in the north by the Santa Susana Mountains.

Groundwater quality is under the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB) Region 4. The Board has designated beneficial uses for the San Fernando Valley Groundwater Basin including:

- **Municipal (MUN).** Water used for military, municipal, individual water systems, and may include drinking water.
- **Industrial Service Supply (IND*).*** Water supply for industrial uses that do not depend on water quality.
- **Industrial Process Supply (PROC).** Uses of water for industrial activities that depend primarily on water quality.

- **Agricultural (AGR).** Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Groundwater was not encountered in any of the test borings performed by Tetra Tech to the depth of exploration during the geotechnical field investigation (Tetra Tech 2013). Borings drilled for previous investigations within the Plant were also reviewed with regard to evidence of groundwater and the findings are summarized below:

- Borings drilled for the Blower Building in the northern portion of the facility did not encounter groundwater to depths as deep as 53 ft. (City of Los Angeles 2006a). These borings were drilled in late September 2005.
- Borings drilled for the in-plant storage basins within the eastern portion of the facility did not encounter groundwater to depths as deep as 51 ft. (approximate elevation 660 ft.). These borings were drilled in September 2009 (City of Los Angeles 2010).
- One boring drilled for the Multi-Use Building within the western portion of the facility did encounter evidence of perched water at a depth of 39 ft. (approximate elevation 670 ft.). This boring was drilled in March 2012 (City of Los Angeles 2012).

The above information indicates that groundwater levels below the Plant likely fluctuate seasonally and in response to periods of high rainfall.

The San Fernando Valley Groundwater Basin can be characterized as calcium sulfate-bicarbonate dominating the eastern part of the basin (close to the Sepulveda Dam Reservoir) and calcium bicarbonate dominating the western side of the basin (ULARAW 1999). Total dissolved solids (TDS) in the San Fernando Valley Groundwater Basin range from 326 to 615 milligrams/liter (mg/L) and electrical conductivity ranges from 540 to 996 siemens (ULARAW, 1999). Well monitoring data taken from 125 public supply wells shows an average TDS content of 499 mg/L and a range from 176 to 1,160 mg/L.

Groundwater quality impairments in the San Fernando Valley Groundwater Basin consist of trichloroethylene (TCE), perchloroethylene (PCE), petroleum compounds, chloroform, nitrate, sulfate, and heavy metals (ULARAW, 1999). In general, the western part of the basin is impaired by elevated concentrations of sulfate; the eastern part of the basin is impaired by TCE, PCE, and nitrates (ULARAW, 1999).

Water Quality. The urban storm runoff entering the Los Angeles River in the Sepulveda Dam Reservoir is generally of poor quality. Routine base flow (usually less than 10 cfs) is typically high in salinity, whereas storm runoff is generally low in salinity. Flows are supplemented by the release of approximately 26 mgd, or 40 cfs, from the Plant. About 2.5 mgd are recycled at the Plant for treatment processes, landscape irrigation, cooling of Plant equipment, air conditioning, and other applications. Over 23 mgd are recycled to the three nearby lakes, the Japanese Garden Lake, the Wildlife Lake, and Lake Balboa, all located within the Sepulveda Dam Reservoir, and all of which ultimately drain into the Los Angeles River. The remainder of the Plant's treated water is discharged directly to the Los Angeles River. The Plant's discharge, combined with the outflow from the three lakes, provides a minimum of 20 mgd (31 cfs) to the Los Angeles River for support of the river's riparian habitat (LADWP 2010).

Stormwater within the Plant is collected by storm drains and discharged to the Plant's headworks for treatment. The City of Los Angeles holds a NPDES discharge permit for the Plant, which

regulates the discharge of treated wastewater to the Los Angeles River and its tributaries. A portion of the treated effluent from the Plant is discharged to the Los Angeles River per the NPDES Permit, while the other portion is recycled. The excess effluent (beyond recycled water demands) is discharged to the Los Angeles River approximately 900 ft. downstream from Sepulveda Dam. Overflows from the Japanese Garden, Lake Balboa, and Wildlife Lake also are discharged to the Los Angeles River. The current NPDES permit was adopted in December 2006 and became effective in February 2007. The recycled water requirements, LARWQCB Orders #R4-2007-2009, and waste discharge requirements, #R4-2007-2008, were adopted and became effective in January 2007. The Plant is operating under a SWPPP that was completed in 2013 (LASAN 2013).

3.15.2 Significance Thresholds

Implementation of the proposed project would be considered to have significant effects on water resources if it were to result in the following:

- Discharges that create pollution, contamination, or a nuisance as defined in Section 13050 of the California Water Code or that cause state or federal regulatory standards to be violated, as defined in the Water Quality Control Plan for the receiving water body; or
- Removal of flood storage capacity below the SPF.

3.15.3 Environmental Consequences

3.15.3.1 No Action Alternative

Under the no action alternative, demolition excavation, and grading activities would temporarily increase the production of dust and debris on-site, and could therefore increase pollutant loads if the site were inundated due to a flood or heavy rain event during the decommissioning period. During this time, any runoff or erosion from disturbed areas would be contained by measures contained in a project-specific SWPPP and erosion control plan, which would be prepared and implemented by the contractor. As a result, impacts to water quality and hydrology associated with demolition, excavation, and grading would be less than significant.

In the long term, demolition of the Plant facilities and restoration of the site's topography to pre-project conditions would reduce the variation in topography within the leased area, would remove all impervious surfaces, and would include revegetation of barren ground with native vegetation. These actions would decrease onsite generation of stormwater runoff and reduce the potential for localized erosion, both of which would be positive impacts. However, any stormwater that was generated on-site would no longer be collected and treated in the Plant's headworks, and would run off untreated into receiving waters.

Upon the expiration of LASAN's current lease with the Corps to operate the Plant in 2019, the Plant would cease to operate as a treatment plant facility for the region. At that time, the functional capacity of the Plant would need to be shifted to other facilities. LASAN operates three other water reclamation plants: HWRP, Terminal Island, and Los Angeles-Glendale Water Reclamation Plants. Each of these plants are operating near their functional capacity and it is unlikely that they would have the capacity to treat the amount of water currently treated at the

Plant. The HWRP, downstream of the Plant, could provide capacity for the Plant's normal flows. However, the sewer collection system feeding HWRP would not be able to adequately accommodate high flows. As a result, the number of sanitary sewer overflows would significantly increase, and would contaminate receiving waters such as the nearby Wildlife Lake and Lake Balboa as well as the Los Angeles River. This impact would be significant.

If the current lease expires and a new easement is not granted, the Plant would no longer operate and the site would no longer provide recycled water to Wildlife Lake, Lake Balboa, and the lake in the Japanese Garden, all of which are located within the Sepulveda Dam Reservoir, and all of which ultimately drain into the Los Angeles River. Over time, unless another water source was located, the three lakes water would begin to dry up, causing water quality in those lakes to deteriorate. Under current operations, the Plant also discharges treated water directly into the Los Angeles River. The Plant's discharge, combined with the outflow from the three lakes, provides a minimum of 20 mgd (31 cfs) to the Los Angeles River for support of the river's riparian habitat (LADWP 2010). Under the no action alternative, the cessation of operations at the Plant would eliminate these inflows to the Los Angeles River, reducing summer flows by approximately 30% and thereby impairing water quality in the Los Angeles River. Given the already very poor water quality in the Los Angeles River, this impact would be less than significant.

Removal of the existing floodwalls and dikes would restore the floodplain connection between the leased lands and the surrounding recreational areas within the Basin. This re-connection would increase the flood storage capacity of the floodplain by approximately 690 acre-feet, furthering the primary purpose of the Sepulveda Dam Reservoir, which is flood risk management. Removal of the floodwalls and dikes would not expose people or structures to additional risk as a result of inundation, as all structures would be removed from the currently leased land and visitors to the restored site would be transient. This impact would be less than significant.

3.15.3.2 Proposed Action

Construction associated with the rehabilitation of the on-site dikes would include clearing and grubbing and the installation of the proposed modifications. Construction associated with the AWPF would involve demolition, clearing, grading, excavation, and foundation construction. These activities would increase the production of dust and debris on-site, and could therefore increase pollutant loads if the facility were inundated during a flood or heavy rain event. Any runoff from disturbed areas or staging areas would be contained by measures contained in a project-specific SWPPP, which would be prepared and implemented by the construction contractor. The SWPPP would outline the BMPs to be implemented to avoid or minimize runoff discharges to the Los Angeles River and other watercourses. In addition, when a major storm event was forecast within 48 hours, work would stop and all equipment and vehicles would be moved to an area not subject to flooding by the 100-year flood event (approximately 712 ft.). An erosion control plan would also be prepared and would specify appropriate BMPs to control runoff from the project site during construction. Upon implementation of the Proposed Action, stormwater produced on-site would continue to be collected by storm drains and would be discharged to the Plant's headworks for treatment, as specified by the 2013 SWPPP. Stormwater treatment and release is also regulated under the Plant's NPDES permit, which is held by the City of Los Angeles, and which regulates the discharge of treated wastewater to the Los Angeles

River and its tributaries. The NPDES permit would be renewed periodically over the life of the easement, and would cover all future construction actions. With the mitigation measures listed in Section 4 in place throughout construction, the Proposed Action would not result in significant effects on water quality.

Installing the concrete mat on the south and east faces of the levees and installing the bump ramp at Teibo Drive would reduce available space for flood waters in the event of a SPF. The volume of the concrete mat and the portion of the bump ramp below the 100-year flood elevation was calculated based on design plans, and it was found that this action would result in the loss of approximately 150 cubic yards of flood storage within the 100-year floodplain. This loss would be mitigated by removing soils from the borrow area located near the construction laydown site in the northeast portion of the easement area, as specified in . These soils would be removed from the easement area. Therefore, this impact would be less than significant.

Operation of the Proposed Action would require an additional 16 staff at the Plant to operate and maintain the AWPF, which would cause a nominal increase in the demand for water supply and a resulting increase in wastewater generation. It is anticipated that these effects would be less than significant.

4 ENVIRONMENTAL COMMITMENTS

Environmental commitments include those measures taken to decrease the level of impact to resources in the area. The Proposed Action in this EA would result in a spectrum of impacts from less than significant with mitigation to no impact. For all resource areas, environmental commitments are either required mitigation or voluntary measures that could be taken to further reduce impacts.

4.1 BIOLOGICAL RESOURCES

BR-1. Pre-Construction Nesting Bird Surveys. LASAN would conduct pre-construction surveys for work conducted between March 1 and September 15, to determine if active nests of the federally and state listed endangered least Bell's vireo were present within 500 ft. of construction work areas. Up to eight surveys would be performed, consistent with survey protocols of the USFWS.

BR-2. Breeding Bird Avoidance. Construction activities with the potential to generate noise levels in excess of 60 dB equivalent continuous level (Leq) or ambient (if ambient is greater than 60 dB Leq) within 500 ft. of areas determined to support nesting least Bell's vireos or MBTA species would be postponed until (1) all nesting (or breeding/nesting behavior) had ceased, as determined by a qualified biologist, or until after September 15; or (2) temporary noise attenuation (e.g., construction of a noise wall, noise berm, noise blankets, equipment baffles, etc.) and monitoring measures were implemented at the edge of the construction footprint to ensure that noise levels did not exceed 60 dB Leq or ambient (if ambient is greater than 60 dB Leq), as measured from the location of the active nest(s) under the direction of a qualified biologist and acoustician. Alternatively, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB Leq or ambient in lieu of or in concert with a wall or other sound attenuation barrier. If noise levels could not be reduced below 60 dB Leq or ambient at the location of the nest(s), then the construction activities causing the excess noise would be postponed until all nesting (or breeding /nesting behavior) had ceased, as determined by a qualified biologist. All grading permits and improvement plans would specify these restrictions.

BR-3. 50-ft. wide buffer zones would be established between Haskell Creek and any construction activity areas.

4.2 AIR QUALITY

AQ-1. A Fugitive Dust Emission Control Plan would be developed and implemented. Measures to be incorporated into the plan would include, but would not be limited to, the following:

- Unpaved and other disturbed areas of the active sites would be watered at least two times per day, or apply CARB certified soil binders.
- Wheel washers/cleaners would be installed or the wheels of trucks and other heavy equipment would be washed where vehicles exited the site or used unpaved access roads.
- If equipment were operating on soils that cling to wheels, the contractor would be required to use a "grizzly" or other such device using rails, pipes, or grates to dislodge

mud, dirt, and debris from the tires and undercarriage of vehicles on the road exiting the project site, immediately before the pavement in order to remove most of the soil from vehicle tires.

- Increased frequency of watering of all disturbed fugitive dust emission sources, or implementation of other additional fugitive dust Environmental Commitments, if wind speeds (as instantaneous wind gusts) were to exceed 25 miles per hour.
- Activities and operations on unpaved roads and areas would be minimized to the extent feasible during high wind events
- Vehicle speeds would be limited to 15 miles per hour or less within the work areas.
- Roadways next to the Proposed Action site would be kept clean and daily project-related accumulated silt and debris would frequently be removed.

AQ-2. All on-road construction vehicles would meet all applicable California on-road emission standards and would be licensed in the State of California.

AQ-3. All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, would be required to meet, at a minimum, the Tier 3 California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1). If a Tier 3 or Tier 3-equivalent engine were not available for a particular item of equipment, Tier 2 compliant engines would be allowed on a case by case basis.

AQ-4. Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by the EPA or CARB would be installed on equipment operating on-site.

AQ-5. Idling of heavy-duty diesel trucks during loading and unloading would be limited to five minutes; auxiliary power units would be used whenever possible.

AQ-6. All equipment would be maintained as recommended by manufacturers' manuals.

AQ-7. Any equipment not in use for more than 30 minutes would be shut down.

AQ-8. Electric equipment would be substituted whenever possible for diesel- or gasoline-powered equipment.

4.3 CULTURAL RESOURCES

CR-1. LASAN would retain an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards to oversee preparation of the Cultural Resources Monitoring Plan (CRMP), construction monitoring, and preparation of a final monitoring report. The CRMP would be based on Project design plans, the results of the Phase I archaeological study prepared for the Proposed Action (ArchaeoPaleo 2017), input from Native American representatives, Secretary of the Interior's standards for identification and evaluation of historic properties, NRHP Bulletins, California SHPO guidance, and other relevant information.

CR-2. LASAN would retain a Native American monitor who is traditionally and culturally affiliated with the Proposed Action site to accomplish monitoring as required by the CRMP in mitigation measure CR-1. The Native American monitor would also be empowered to halt and

re-direct work in the event of a discovery until it was assessed for significance, consultation was completed, and treatment implemented, if necessary. The provisions of the Native American monitoring plan would be included in the CRMP.

CR-3. The CRMP would include protocols for the identification, assessment, and treatment of known resources and any unanticipated discoveries of archaeological resources during Project implementation, including notification procedures, significance evaluation procedures, reporting procedures, and other prescribed actions. The CRMP would state that avoidance or preservation in place would be the preferred means to avoid effects to historic properties, but would provide procedures to follow should avoidance not be feasible. The CRMP would specify the roles and responsibilities of involved parties, and the location, duration, and timing of monitoring until a depth at which the potential to encounter buried archaeological deposits was greatly reduced. The buffered areas would be identified on construction plans to guide monitoring. The CRMP would outline procedures for determining when/where monitoring could be reduced or discontinued in consultation among the Corps, LASAN, qualified archaeologist, and appropriate Native American representatives.

4.4 PALEONTOLOGICAL RESOURCES

PR-1. Surface grading and shallow excavations would be unlikely to produce significant fossil specimens (McLeod 2015). Older, Pleistocene age alluvium, which has the potential to yield significant fossils, may occur at an unknown depth beneath the surficial sediments. Therefore, paleontological monitoring of excavations that encounter undisturbed native alluvial sediment or bedrock of Pleistocene age or older within any part of the easement area would be performed by a qualified paleontological resources monitor (SVP 2010). Such monitoring would be conducted full-time until the Paleontologist assigned to the Proposed Action determined that such excavations would be unlikely to yield significant paleontological resources, and thus such monitoring was no longer required. Sediment samples would be collected and processed for wet screening in order to determine the potential for microfossils (significant vertebrate fossils too small to be "readily visible within the sedimentary matrix" and "non-vertebrate paleoenvironmental indicators" such as single-celled organisms, mollusks, and plant remains). If the qualified paleontological resources monitor determined that the sediment uncovered by project excavations had the potential for microfossils, then a test sample (about 600 lbs of sediment or matrix) would be collected from the project and screen washed (SVP 2010). The monitor could determine that a larger standard sample (at least 6,000 lbs) from each locality or deposit was required.

4.5 GEOLOGY, SOILS, SEISMOLOGY AND MINERALS

GSSM-1. An Erosion and Sedimentation Control Plan (Plan) would be prepared. The Plan would identify measures to be implemented to minimize the erosion effects of grading and excavation. Erosion control methods to be described in the Plan and implemented would include:

- Avoiding soil disturbance during periods of heavy precipitation or high winds.
- Keeping disturbed areas to the minimum necessary for construction.
- Reducing surface water flows across graded or exposed areas.
- Using straw bales, soil mats, or silt fences to stabilize disturbed areas.

- Using culvert, ditches, water bars and sediment traps to control runoff and erosion.
- Bioengineering techniques for erosion control.

GSSM-2. All requirements would be shown on grading plans. Conditions would be adhered to throughout all grading and construction periods.

GSSM-3. If a significant rain event occurred during construction activities, activities would cease.

GSSM-4. Slope stability measures would be implemented at each construction and borrow site.

GSSM-5. All suitable excavated fill material would be stockpiled for the shortest period of time possible. If any unsuitable material was found or generated, it would be disposed at a commercial landfill or approved site.

GSSM-6. All clearing, grading, earth moving, and excavation would cease during periods of winds greater than 20 miles per hour (averaged over one hour) when disturbed material is easily windblown, or when dust plumes of 20 percent or greater opacity impacted public roads, occupied structures, or neighboring property.

GSSM-7. Watering would take place a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations to minimize fugitive dust.

GSSM-8. All fine material transported off-site would be sufficiently watered or securely covered to prevent excessive dust.

GSSM-9. Stockpiles of soil or other fine loose material would be stabilized by watering or other appropriate method to prevent windblown fugitive dust.

GSSM-10. Areas temporarily disturbed by construction would be returned to pre-construction conditions by grading and re-vegetating. Barren areas would be seeded and /or planted with native vegetation to reduce potential erosion.

4.6 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

HTRW-1. The contractor would be required to prepare a Solid and Hazardous Materials and Waste Management Plan.

HTRW-2. Construction and maintenance fluids (oils, antifreeze, fuels) would be stored in closed containers (no open buckets or pans) and disposed of promptly and properly away from the channel to prevent contamination of the site.

HTRW-3. Refueling of equipment would be accomplished on site least 50 ft. away from flowing water and with the use of liners. BMPs would be used and would include such actions as having hazardous waste clean-up equipment and spill kits staged on-site and using the appropriate size and gauge drip pans and absorbent diapers. Spill kits would be in close proximity to the fuel truck in case of fuel or other fluid spills. Contractor equipment would be checked for leaks prior to operation and repaired as necessary.

HTRW-4. The contractor would comply with all applicable local, regional, state, and Federal laws, policies, and regulations regarding the transportation, storage, handling, management, and disposal of hazardous materials and wastes.

HTRW-5. Contractors would have in place an accidental spill prevention and response plan for all hazardous materials that could be used on site. In the event of a spill or release of hazardous substances at the construction site, the contaminated soil would be immediately contained, excavated and treated per Federal and state regulations developed by the EPA, as well as local hazardous waste ordinances. All contaminated materials would be disposed of promptly and properly to prevent contamination of the site. Someone would be present to monitor refueling activities to ensure that spillage from overfilling, nozzle removal, or other action did not occur.

HTRW-6. Only trained contractors or personnel would participate in the application of pesticides and herbicides. Such personnel would adhere to regulations and guidelines for the safe application of pesticides, including, but not limited to storage and handling of materials, operation of application equipment, suitable climatic conditions for application, and avoidance of sensitive receptors. The herbicides used would need to be approved for use in or near water.

HTRW-7. During construction, if an area of suspected contamination were encountered, construction activity in the area would cease and soil sampling would be conducted to determine the nature and extent of the potential contamination. If testing indicates that contamination did exist, the area would be cleaned up in accordance with applicable Federal and state regulations.

4.7 LAND USE

LU-1. The proposed project would comply with local zoning requirements and guidelines for construction, including the Public Facilities General Plan and the Sepulveda Dam Basin Master Plan.

4.8 NOISE AND VIBRATION

NV-1. Activities would comply with local ordinances. Any nighttime or weekend activities would be coordinated with local ordinances and would require a noise permit.

NV-2. All equipment would include noise reduction measures, as applicable. These measures would include, but would not be limited to, properly operating and maintaining mufflers, correct placement of equipment engine covers, and ensuring that small loading equipment was equipped with rubber tires. Equipment would be maintained in accordance with manufacturer's recommendations. All machinery would be equipped with the best available exhaust mufflers and "hush kits," as applicable.

NV-3. Residents within ½ mile of construction activity would be notified 1 week prior to construction activity. The notifications would describe the character of the activities and their duration to enable local residents to modify their activities to reduce potential impacts.

NV-4. As part of the Proposed Action's advanced notification to all residences and property owners, a contact person name and phone number would be provided.

NV-5. Noise producing signals, including horns, whistles, alarms, and bells would be limited to safety warning purposes only.

4.9 Recreation

REC-1. To maintain public access to the Japanese Garden throughout the duration of construction, LASAN would arrange for alternative temporary public parking and support facilities in Woodley Ave. Park south and west of the Plant and Garden. Pedestrian access from the alternative temporary parking to the Japanese Garden would be provided and maintained throughout the duration of construction. In addition, access to the Garden from the north would be considered. Coordination with the City Department of Recreation and Parks would be undertaken to secure adequate off-site parking prior to the start of construction.

REC-2. All recreation uses would be detoured from the area for safety of workers and the public.

REC-3. Notices and information on current recreation use status would be provided during the construction period through local media and signage.

4.10 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

SEJ-1. In cooperation with local communities, a comprehensive recreation mitigation plan would be developed to address how all affected recreational opportunities would be maintained during the construction period. The plan would include news releases on a Corps' and/or the City's or LASAN's website.

SEJ-2. Off-site truck hauling would be limited on weekends to accommodate Park user access and recreation-related traffic adjacent to the Proposed Action area.

SEJ-3. A Traffic Safety Plan would be prepared in coordination with local emergency services.

4.11 TRAFFIC AND CIRCULATION

TC-1. The contractor would prepare a Traffic Management Plan (TMP) for the Proposed Action in coordination with the local jurisdictions having authority over specific roadways. The Plan would be prepared by a registered traffic or civil engineer, as appropriate, based on City of Los Angeles permit guidelines. The TMP would be submitted to LADOT and LABOE for review and approval. The TMP would consist of traffic control plans for each distinct construction area showing any temporary modifications to intersections or roadways (such as lane closures or modifications to the timing of traffic signals) and how these would be implemented and controlled. The TMP would also include the following:

- Identification of temporary traffic control devices in accordance with Caltrans' California Manual on Uniform Traffic Control Devices. This could include slow-moving-vehicle warning signs, barriers for separating construction and non-construction traffic, use of traffic control flagmen, and any additional measures required for safely passing non-construction traffic through and around construction areas and access points.
- Scheduling of worker shift changes to minimize existing background traffic peak periods if feasible.
- Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by Project construction. Proper notification and coordination with the local

emergency response agencies would be critical for these road closures to ensure that emergency vehicle access was not affected.

- Methods to inform the public about construction impacts and alternate routes.
- Details on effects on bicycle and pedestrian access and facilities, including signed detour routes to ensure continued through access during construction.
- Specific traffic management strategies to mitigate traffic impacts on Haskell Ave. where one-way-only traffic flow would be created due to lane closure.
- Description of signage within the construction corridors for traffic, in advance of the first encountered work area, warning of potential delays ahead on the route.
- Description of signage that would be used to alert motorists to temporary or limited access points to adjacent properties; appropriate barricades for road closures; construction speed limit signage; and parking restrictions during construction.
- Specifications that, if additional haul routes were required, existing roadways would be selected that would result in the least amount of impact to existing background traffic.
- Requirements to provide dedicated turn lanes for vehicles entering and exiting the Proposed Action site from local roadways to minimize impacts to vicinity traffic.
- Mandates to observe and comply with the City's traffic plan, including using designated truck routes as applicable.
- Restrictions on deliveries made by large trucks during periods of high use, including Saturdays and special events.

TC-2. Public streets would be kept operational, particularly during the morning and evening peak hours of traffic. If required, any lane closures would be minimized during peak traffic hours.

TC-3. Haul routes would be designed to minimize distances to the work site and avoid heavily congested areas or large residential communities to the maximum extent feasible.

TC-4. If damage to roads occurred, the contractor would coordinate repairs with the affected public agencies to ensure that any impacts to area roads were adequately repaired. Roads disturbed by trucks or equipment would be properly restored to ensure long-term protection of road surfaces. Such repairs would occur as part of the active construction period.

TC-5. The contractor would obtain all applicable permits and clearances from appropriate agencies for transporting and hauling equipment and debris.

TC-6. To the extent feasible, construction worker travel and all construction truck traffic to and from the site would avoid peak traffic hours.

TC-7. Traffic would be controlled during construction by adhering to the guidelines contained in Standard Specifications for Public Works Construction used by many municipalities in California and the California Department of Transportation (Caltrans) Traffic Manual, Chapter 5, "Manual of Traffic Controls for Construction and Maintenance Work Zones" and applicable City requirements. These guidelines provide methods to minimize construction effects on traffic flow.

TC-8. There would be coordination with the local transportation department of the applicable jurisdiction to implement standard construction traffic controls, such as the posting of notices, signage, detours, flag men, and other appropriate measures as needed.

TC-9. If necessary during construction, temporary overflow parking could be provided in the Woodley Park parking lots adjacent to the Plant. Use of these parking lots by construction workers during the approximately 18-month construction period would be coordinated with the City of Los Angeles, Department of Recreation and Parks. Coordination and arrangement for alternate parking would occur prior to the start of construction.

TC-10 Deliveries of materials by large trucks will be restricted on Saturdays and during special events when traffic is likely to be heavier than under normal conditions.

4.12 PUBLIC SERVICES

PS-1. Contractor would prepare a *Public Safety Management Plan* to maintain public health and safety during all phases of construction. Components of the plan would include:

- Notifying the public of the location and duration of construction activities, closing pedestrian and bicycle paths and trails, and restricting other impacted recreation;
- Coordinating with the public and local jurisdictions to minimize impacts and plan contingencies for maintaining emergency response, emergency evacuation plans and capacity of emergency services during construction;
- Posting signs locating construction sites and warning of the presence of construction equipment;
- Fencing construction staging areas; and
- Providing temporary walkways (with appropriate markings, barriers, and signs to safely separate pedestrians from vehicular traffic) and posting detour signs where a sidewalk or pedestrian or bicycle path or trail would be closed during construction.

PS-2. All contractors would prepare and implement a *Worker Health and Safety Plan* to be approved by the Corps' Safety Office prior to start of construction activities. At a minimum the plan would include:

- All appropriate worker, public health, and environmental protection equipment and procedures;
- Designated heavy equipment traffic circulation route plans;
- Emergency evacuation routes and procedures;
- Emergency response procedures;
- The most direct route to a hospital and safe air ambulance landing zone;
- Name of the Site Safety Officer; and
- Documentation that all workers had reviewed and signed the plan.

PS-3. The contractor would consult with local jurisdictions to ensure that construction activities did not impede adopted emergency response plans.

PS-4. Prior to construction activities, the Contractor would notify relevant fire and police of traffic management methods to be used to ensure access at all times.

PS-5. A Communication Plan would be developed by The Corps' Public Affairs Office and would be implemented during all construction activities. The Communication Plan would describe how local authorities would be notified of public safety concerns, incidents, and emergencies.

PS-6. Fluids released because of spills, equipment failure (broken hose, punctured tank) or refueling would be immediately controlled, contained, and cleaned-up per Federal regulations. All contaminated materials would be disposed of promptly and properly to prevent contamination of the site. Someone would be present to monitor refueling activities to ensure that spillage from overfilling, nozzle removal, or other action did not occur.

PS-7. Construction employees would strictly limit their activities, vehicles, equipment, and construction materials to the proposed footprint and designated staging areas and routes of travel. The construction area(s) would be the minimal area necessary to complete the project and would be specified in the construction plans. All people on site would be instructed that their activities are restricted to the construction areas.

PS-8. Contractor would not allow ponding or puddles of standing water to remain within the construction area that would be subject to mosquito breeding.

PS-9. All work and staging areas would be clearly marked and appropriately guarded to ensure public safety.

PS-10. Signs would be posted prohibiting trespassing.

PS-11. The contractor would be required to comply with OSHA and applicable LASAN safety standards.

4.13 UTILITIES

UTIL-1. Ensure the Plant provides water treatment services without interruption or reduction.

4.14 ESTHETICS

ESTH-1. Signs would be posted prohibiting trespassing within the "construction zone".

ESTH-2. Vehicular traffic would be confined to routes of travel to and from the project site, and cross-country vehicle and equipment use would be prohibited outside designated work and storage-staging areas.

ESTH-3. Work and staging areas would be kept orderly and free of trash and debris.

ESTH-4. A storage area for collection and storage of recyclable and green waste materials would be kept within the work area. All trash and debris would be removed from the work area at the end of each day.

ESTH-5. When not in use, large equipment would be concentrated in staging areas.

ESTH-6. A buffer zone would be established between the staging area and Haskell Creek.

ESTH-7. Fenced screening would be used as necessary.

4.15 WATER QUALITY AND HYDROLOGY

WQH-1. A SWPPP would be prepared to reduce the potential for accidental release of fuels and other toxic materials. Consistent with Federal and state regulations, all other applicable permits for construction would be obtained. A Notice of Intent would be sent to the SWRCB in Sacramento. Workers would be educated on measures included in the SWPPP at the pre-construction meeting or prior to beginning work in the Proposed Action area. The SWPPP would include such actions as having hazardous waste clean-up equipment and spill kits staged on-site and using the appropriate size and gauge drip pans and absorbent diapers. Spill kits would be in close proximity to the fuel truck in case of fuel or other fluid spills. Contractor equipment would be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" would be designated on construction plans. Fluids released because of spills, equipment failure (broken hose, punctured tank) or refueling would be immediately controlled, contained, and cleaned-up as per Federal and state regulations. All contaminated materials would be disposed of promptly and properly to prevent contamination of the site. The barriers would be such that spills would be contained and easily cleaned up. Someone would be present to monitor refueling activities to ensure that spillage from overfilling, nozzle removal, or other action did not occur.

WQH-2. If a major storm event were forecast to occur within 48 hours, work would stop and all equipment and vehicles would be moved to an area not subject to flooding by the 100-year flood event (approximately 712 ft.).

WQH-3. A minimum of 150 cy of soil will be removed from the borrow area adjacent to the construction laydown area in the NE portion of the Plant. This soil may be used for the levee rehabilitation if it is needed, or may be removed from the premises and disposed of offsite.

5 GROWTH INDUCING IMPACTS

5.1 INTRODUCTION

Proposed actions, in addition to having potential effects on the resource areas described in Section 3, may also have direct or indirect effects on growth in the region. Growth may, in turn, have effects that must be more clearly defined. Direct or indirect growth-inducing effects that may significantly affect the environment under NEPA (40 C.F.R. 1508.8[b]) may include changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural systems including ecosystems. This section evaluates whether the Proposed Action would directly or indirectly stimulate growth in the surrounding area.

5.2 GROWTH CONSIDERATIONS

The Proposed Action may result in a direct or indirect effect on growth in the area, if it:

- Results in the construction of additional housing;
- Fosters economic growth that results in increased population growth; or
- Removes obstacles to population growth.

5.2.1 No Action Alternative

Under the no action option, there would be no direct increase in constructing housing and no economic growth would result in additional population growth.

5.2.2 Proposed Action

The Proposed Action would result in the continued easement of lands to LASAN and operation of the Plant. The area surrounding the Plant is largely built out and limited to future growth by the capacity of the Plant and the availability of lands surrounding the Plant. The continued operation of the Plant, the dike rehabilitation, and the future Capital Improvement Projects are not designed to provide treatment capacity with the goal of increasing population growth in the area; instead, the Proposed Action is intended to allow the Plant to keep up with increasing demand for water treatment in the San Fernando Valley.

6 CUMULATIVE IMPACTS

CEQ regulations implementing NEPA define a cumulative impact as "the impact on the environment resulting from incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (CEQ 1997). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.7). A cumulative impact includes the total effect on a natural resource, ecosystem, or human community due to past, present, and future activities or action of Federal, non-Federal, public, and private entities. Cumulative impacts may also include the effects of natural processes and events. Accordingly, there may be different cumulative impacts on different resources. Significant cumulative impacts occur when incremental impacts of the Proposed Action, in addition to the impacts of past, present, and reasonably foreseeable future actions would result in significant impacts to resources assessed in this EA.

Past Actions

Sepulveda Basin and the surrounding area were historically used primarily for agriculture. Starting in the mid-1800s, substantial portions of the San Fernando Valley were modified to accommodate ranching and agriculture operations prior to the construction of Sepulveda Dam in 1941. Construction of Sepulveda Dam itself required grading and clearing of land within the Basin and substantial modifications to the river.

Urbanization of the San Fernando Valley after World War II created a need for outdoor recreational areas. In 1951, the Corps and the City entered into a 50-year recreational lease where a large portion of the Basin was leased for recreational purposes to the City. Recreational facilities were first constructed in the Basin in 1959. Multiple supplements to the original 50-year lease with the City for recreational purposes have been extended; thus, recreational use of the Basin will continue at least until 2042. The construction of the recreational facilities would not have resulted in additional impacts on natural habitat, since lands within the Basin had been used for agriculture.

Present Actions

Sepulveda Basin primarily functions as a flood risk management facility. Sepulveda Basin also supports a variety of recreational amenities, including three golf courses, parkland, a sports center, baseball and soccer fields, the garden center, model airplane center, cricket fields, tennis courts, hiking/jogging/bicycle trails, and a lake for fishing. In addition to the lease for the Plant, several leases have also been granted for non-recreational purposes including a fire station, a National Guard Armory, maintenance shops, and a Naval Reserve Training Center. In addition, several parcels in the Basin are leased for agricultural purposes. Easements have also been granted for water lines, power lines, sewer lines, storm drains, gas lines, and traffic arteries, such as freeways and city streets.

In the waterways adjacent to the Proposed Action Area, the Corps annually removes approximately 5,000 cubic yards of sediment and emergent vegetation from grouted stone

portions of the Los Angeles River from just below Burbank Boulevard to the outlet works and from Haskell and Encino Creeks. These activities are typically completed within a four-week duration. Furthermore, the Corps has authorized operation of a seasonal non-motor boating program within the reach of the Los Angeles River traversing the Basin.

Future Actions

The Corps has recently completed planning and environmental studies for the Sepulveda Dam Basin Vegetation Management and Access Maintenance Plan. This action would contribute to minor cumulative impacts to biological resources, recreation, noise, and aesthetics. Sepulveda Basin will continue to function primarily as a flood risk management facility. Recreational amenities will continue to be operated and maintained by the City's Department of Recreation and Parks. Multiple supplements to the original 50-year lease with the City for recreational purposes have been extended, thus recreational use of the Basin will continue at least until 2042.

Table 6-1 identifies permits that have been issued by the Los Angeles District for projects in and around Sepulveda Basin since Year 2000. Table 6-2 identifies present and reasonably foreseeable future actions within a 2-mile radius of the Plant that were considered in determining whether other projects could contribute to cumulative effects. Figure 6-1 identifies locations of proposed projects within a 2-mile radius of the Plant. Table 6-3 identifies present and future actions within the Plant property that were considered when evaluating potential cumulative effects. Over a 10-year term starting in 2018, LASAN is likely to implement additional projects needed for maintenance of the plant or to increase the capacity of the Plant and the quality of the water that it treats. The majority of these projects are associated with routine maintenance of the Plant facilities. For those projects that involve improvements or expansion beyond the scope of O&M, additional, project-specific documentation to fulfill NEPA requirements would be prepared prior to their implementation.

6.1 CUMULATIVE EFFECTS FOR BIOLOGICAL / NATURAL RESOURCES

Any potentially significant impacts resulting from implementation of the Proposed Action would be mitigated to a less than significant level through implementation of the mitigation measures identified in Section 4. Projects listed in Table 6-2 that may occur simultaneously as the Proposed Action, which are planned, or which have been recently completed are primarily within highly urbanized areas that offer little value for biological resources. All of the projects listed in Table 6-3 would occur within the highly developed Plant boundary, and would not impact biological resources. Any proposed future actions that would affect resources east of the eastern dike in the direction of Haskell Creek could affect biological resources in or near Haskell Creek. However, such effects are not likely to occur under current or proposed actions, and cumulative impacts to biological resources would be less than significant.

6.2 CUMULATIVE EFFECTS FOR AIR QUALITY

The SCAB is a designated state non-attainment area for several criteria pollutants including O_3, PM_{10} and $PM_{2.5,}$ and is in maintenance for PM_{10} (24-hour), NO_2 (annual), and CO (1-hour and 8-hour) under federal standards. Therefore, there is the potential for a regional cumulative impact associated with the emission of these pollutants. The SCAQMD has developed regional mass emission rate significance thresholds which are designed to enable the basin to reach attainment

for these pollutants. These thresholds can be used to assess whether or not the project emissions would contribute to a cumulative impact. As stated above, the unmitigated emissions associated with construction of the AWPF and flow meter vaults components of the Proposed Action would exceed these thresholds for $PM_{2.5.}$ Therefore, without mitigation, the Proposed Action would contribute to a cumulatively considerable increase in criteria pollutants.

As stated above, fugitive dust emissions associated with the construction of the AWPF would be mitigated to less than significant levels. Therefore, with mitigation, the Proposed Action would not contribute to a cumulatively considerable increase in emissions of criteria pollutants.

Table 6-1. Corps-Authorized (CWA-Permitted) Projects in the Project Vicinity Since 2000

Agency	Location	Year	Project
LA City Dept. of Public Works (LACDPW)	Approximately 200 yards north of the project area.	2007	Replace open concrete-lined storm drain channel with a closed box culvert to accommodate widening of Victory Boulevard.
LACDPW	South of the Plant, along Haskell Creek and south of Burbank Blvd.	2007	Vegetation removal.
LACDPW	Sepulveda Basin	2006	Well decommissioning.
Caltrans	South of wildlife area.	2006	Wetland creation as mitigation for the widening of the West Sylmar Overhead Structure for a High Occupancy Vehicle Connector.

Table 6-2. Ongoing and proposed project actions within 2 miles of the Plant (Figure 6-1)

# on Map[1]	Distance from the Plant	Project Name	Project Location	BOE Project Category	Scope Of Work, from BOE Uniform Project Reporting System	Timeline
1	1.1 miles	Burbank Blvd. & Hayvenhurst Ave Intersection Improvements	Intersection of Burbank Blvd. & Hayvenhurst Ave, Encino, CA	Bridges and Streets	"This project will narrow the existing median island to provide a second left turn lane on the westbound Burbank Blvd. for additional queue capacity required during peak hours to access the US-101 FWY ramps."	11/03/2014 to 10/31/2017
2	0.6 miles	Burbank Blvd. & Woodley Ave Intersection Improvements	Intersection of Burbank Blvd. & Woodley Ave, Encino, CA	Bridges and Streets	"Modify the existing median to add a left turn pocket on eastbound Burbank Blvd. to northbound Woodley Ave. New trees will be planted in the median and additional street lights will be provided."	08/15/2014 to 10/31/2017
3	1 mile	Vanowen St Bridge/Bull Creek-1361	Vanowen St between Forbes Ave and De Celis Pl, Lake Balboa, CA	Bridges and Streets	"This project proposes to rehabilitate and widen the existing bridge deck by a total of 21 ft.; 9 ft. on the north side and 12 ft. on the south side. Construction of new architectural barriers."	06/17/2015 to 10/13/2017
4	1.3 miles	Van Nuys Fire Station No. 39	14615 Oxnard St, Van Nuys, CA	Municipal Facilities	"The City of Los Angeles (City) is proposing to construct a replacement fire station on two vacant lots located on the corner of Oxnard Street and Vesper Ave. in Van Nuys. The replacement fire station will include an approximate 18,533 ft^2 facility and other associated improvements."	04/02/2017 to 05/01/2019
5	1 mile	Sepulveda Basin Lake Balboa (Irrigation System)	16821 Burbank Blvd., Encino, CA 91436	Recreational and Cultural Facilities	"Upgrade irrigation system to water conservation standards."	06/02/2018 to 06/02/2019

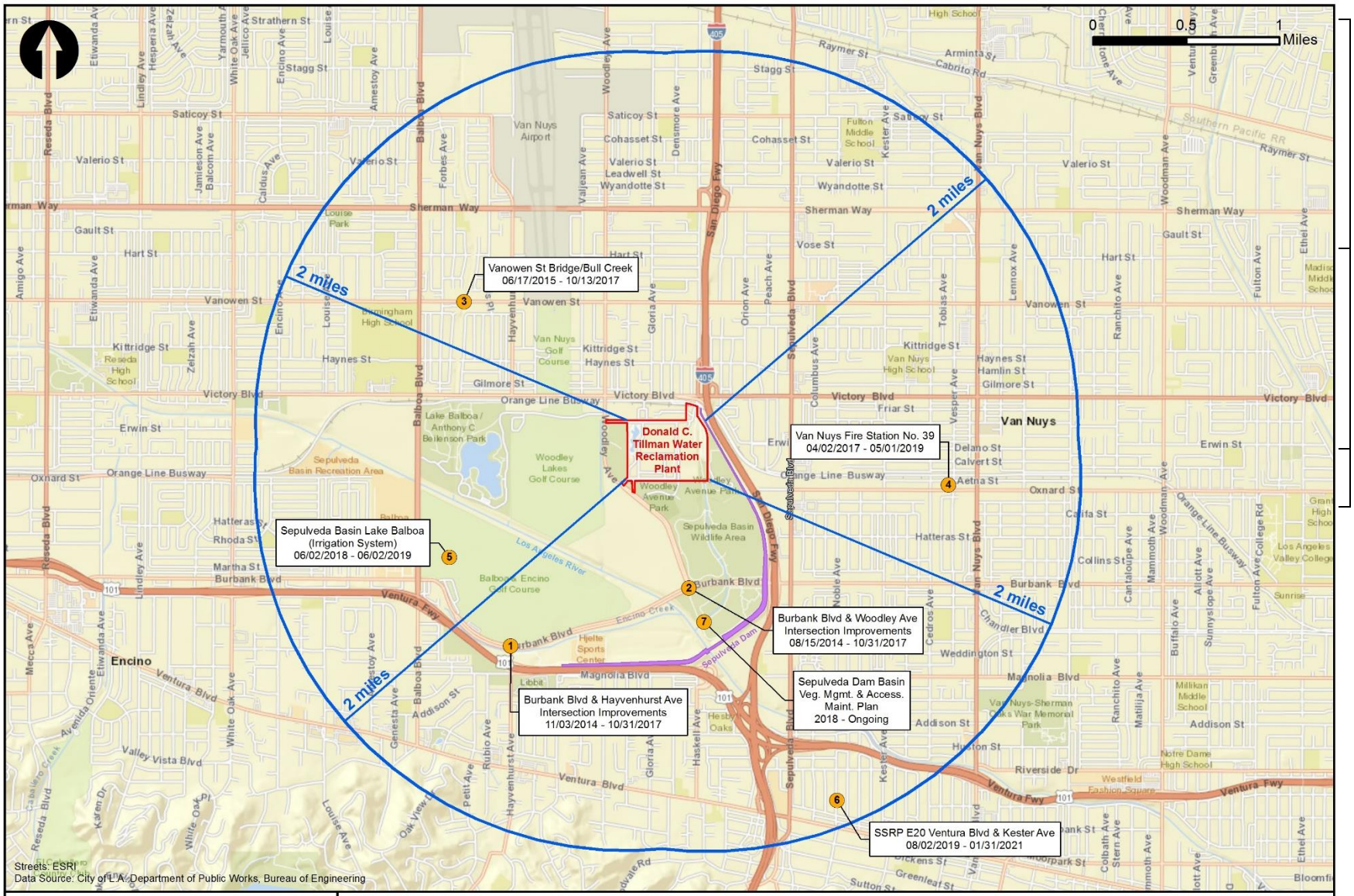

0
0.5
1
Miles
2 miles
2 miles
2 miles
2 miles
Vanowen St Bridge/Bull Creek
06/17/2015 - 10/13/2017
3
Donald C. Tillman Water Reclamation Plant
Van Nuys Fire Station No. 39
04/02/2017 - 05/01/2019
4
Aetna St
Sepulveda Basin Lake Balboa (Irrigation System)
06/02/2018 - 06/02/2019
5
Burbank Blvd & Woodley Ave Intersection Improvements
08/15/2014 - 10/31/2017
2
7
Sepulveda Dam Basin Veg. Mgmt. & Access. Maint. Plan
2018 - Ongoing
Burbank Blvd & Hayvenhurst Ave Intersection Improvements
11/03/2014 - 10/31/2017
1
SSRP E20 Ventura Blvd & Kester Ave
08/02/2019 - 01/31/2021
6
Streets: ESRI
Data Source: City of LA, Department of Public Works, Bureau of Engineering
Encino
Van Nuys
Sherman Way
Victory Blvd
Burbank Blvd
Ventura Blvd
Ventura Fwy
Magnolia Blvd
Addison St
Valley Vista Blvd
Riverside Dr
Haynes St
Kittridge St
Gilmore St
Vanowen St
Saticoy St
Valerio St
Wyandotte St
Cohasset St
Leadwell St
Hart St
Vose St
Friar St
Delano St
Calvert St
Oxnard St
Hatteras St
Rhoda St
Martha St
Erwin St
Collins St
Weddington St
Hilton St
Orange Line Busway
Los Angeles River
Encino Creek
Sepulveda Dam
Van Nuys Airport
Woodley Lakes Golf Course
Balboa Encino Golf Course
Sepulveda Basin Recreation Area
Lake Balboa / Anthony C Bellenson Park
Woodley Avenue Park
Sepulveda Basin Wildlife Area
Louise Park
Van Nuys Golf Course
Van Nuys-Sherman Oaks War Memorial Park
Hjelte Sports Center
Libbit
Hesby Oaks
Reseda High School
Birmingham High School
Van Nuys High School
Fulton Middle School
Millikan Middle School
Notre Dame High School
Westfield Fashion Square
San Diego Fwy
Sepulveda Blvd
Balboa Blvd
Reseda Blvd
Lindley Ave
Woodley Ave
Haskell Ave
Hayvenhurst Ave
Van Nuys Blvd
Southern Pacific RR
405
101
DONALD C. TILLMAN WATER RECLAMATION PLANT EASEMENT IMPLEMENTATION ENVIRONMENTAL ASSESSMENT
Legend
Project Area
FIGURE 6-1 ONGOING AND PLANNED PROJECTS WITHIN 2 MILES OF THE DONALD C. TILLMAN WATER RECLAMATION PLANT

Table 6-3. Donald C. Tillman Water Reclamation Plant Capital Improvement Project List – Present to Year 2050

Project Title	Total Cost	Timeline	Project Description	Project Type			Project Status				
				O&M	Infrastructure Upgrade	Technology Upgrade	On Hold	Predesign Phase	Design Phase	In Bid and Award Phase	Under Construction
Wastewater Control System Replacement	$12,701,811	2015 – 2018	This project replaces the existing control system with the latest technology that is uniform with the other three City of Los Angeles water reclamation plants. This is mainly replacement of electrical and communication equipment.			•					
Electrical Power System Modifications	$10,508,060	2017 – 2020	This project will replace all existing switchgear that is 20 years old and will configure the current "loop system" to a more reliable configuration using doubled-ended type power distribution system. Double-ended distribution system will provide the use of duplicate feeder that will allow switching flexibility to downstream electrical equipment.			•				•	
Blower Air Cleanup System	$4,346,000	2016 – 2018	Project will construct a centralized odor system if the Plant Odor Study determines that odor control facilities are needed as a result of the nitrification-denitrification operation. It will also remove the existing blowers. The Corps has already issued a letter of no objection and the project is ongoing.	•						•	
Grit Chamber Flush System	$920,000	2015 – 2017	Replacement of grit pumps and piping for grit removal system. Project will require a new flush system, either a high-pressure effluent (HPE) or an air blast system for the grit pumps in phase 1 and 2 to back -flush the line and clear the blockages.	•							•
Channel 1 Air Spargers Improvement	$891,155	2017 – 2019	This project replaces existing air spargers in the grit removal phase of treatment. Air spargers force air into the influent water to ensure that suspended solids remain in suspension for treatment in the Primary settling tanks. A bulkhead (retaining wall) will also be installed for maintenance purposes ensuring flow separation between the grit removal process and the primary settling tanks. This project will take place within the current footprint of the existing Grit Chamber.	•				•			

Project Title	Total Cost	Timeline	Project Description	Project Type			Project Status				
				O&M	Infrastructure Upgrade	Technology Upgrade	On Hold	Predesign Phase	Design Phase	In Bid and Award Phase	Under Construction
Screw Pumps Installation & Upgrade	$5,859,000	2015 – 2017	Replacement of 8 Inlet Screw Pumps and associated equipment (i.e. controls, grease lubrication system, screws, maintenance water supply). Remove and recycle 8 existing screw pump barrels and upper and lower bearings. Repair and form concrete troughs. Install stainless steel trough liners and stainless-steel profile plates. Install eight new screw pump barrels including upper and lower bearings. Replace four gearboxes, four motors and two motor starters. Install condition sensors on all eight screw pump assemblies.	•							•
Primary Tank High Pressure Effluent Piping Replacement	$895,000	2016 – 2017	Replace existing copper piping at the Plant primary tanks. Pipes are being used for 120 lbs per square inch HPE recycled water supplied from the treatment plant for spraying/wash down of primary tanks. Pipe runs are in the headspace underneath the tank covers.	•					• 97 %		
Chlorine Tank Gate Actuators	$895,294	2017 – 2019	Installation of the gate actuators on gates in the chlorine contact tanks. Procure and install 10 actuators for the gates at the chlorine contact tanks and filter effluent dump gates.	•							• 50 %
Chemical Lines Upgrade	$1,150,000	2017 – 2019	This project relocates chemical lines above ground at the Plant as is stipulated by authorities.	•						•	
Niwa Road Parking	$250,000	2018 – 2019	Project will provide parking for Japanese Garden Only. Currently Japanese Garden patrons park in the Plant Employee parking lot. This project will provide for the construction of public parking for garden events and contracts at the north end of the garden between Woodley and the current Plant boundary along Niwa Road.		•		•	•			

Project Title	Total Cost	Timeline	Project Description	Project Type			Project Status				
				O&M	Infrastructure Upgrade	Technology Upgrade	On Hold	Predesign Phase	Design Phase	In Bid and Award Phase	Under Construction
Administration Building Heating, Ventilation, and Air Conditioning Replacement	$2,881,600	2017 – 2019	The heating, ventilation, and air conditioning (HVAC) system in the Administration Building has reached its service life expectancy and requires replacement. The existing HVAC system currently requires excessive maintenance and is prone to shutdowns and leakage. This project will replace the HVAC system in the Administration Building.	•					• 90 %		
Stormwater First Flush Collection	$1,000,000	2018 – 2021	First flush stormwater is currently collected at the Plant and discharged to the Additional Valley Outfall Relief Sewer (AVORS) for treatment at HWRP. This project will provide for the collection of all stormwater within the Plant treatment facility footprint and will route the water to Head Works for treatment at the Plant. This project will utilize existing storm water collection galleries to achieve this.		•			July 2017			
Secondary Clarifier Structural Improvements	$2,000,000	2017 – 2020	Structural repairs improvements. Install new fiberglass baffle plates to improve settling (like at the Los Angeles-Glendale Water Reclamation Plant). Replace sludge and scum collection system. Replace sludge pumps, valves, flow meters and controls. Scum to AVORS by-pass system.	•				Sept 2017			
Primary & Secondary Tank Guardrails	$1,346,720	2016 – 2018	Install removable guard rail support system on all primary tanks and secondary clarifier tanks. Provide removable guard rails for three tanks.	•							• 61 %
Chlorination System Improvements	$887,000	2017 – 2019	This project will install a new chemical diffuser, replace four sodium hypochlorite (NaOCl) storage tanks with tanks of similar size and volume, replace piping and install a tie line between Phase I and Phase of the NaOCl injection system, install a canopy to provide protection from the elements to the pumps, replace 10 pumps with peristaltic pumps, replace the sump pump, and recoat the NaOCl containment area. This system replaces a system that is at the end of	•		•			• 74 %		

Project Title	Total Cost	Timeline	Project Description	Project Type			Project Status				
				O&M	Infrastructure Upgrade	Technology Upgrade	On Hold	Predesign Phase	Design Phase	In Bid and Award Phase	Under Construction
			its project lifespan and is necessary for compliance with recycled water guidelines and NPDES discharge guidelines.								
Chlorine Tank High Pressure Effluent System Improvements	$770,000	2016 – 2018	This project replaces existing HPE recycled water lines to the chlorine contact tanks. The replacement HPE lines will be installed in the same location(s) as the existing lines. A new ~300 ft. 10-inch pipe will be installed underground to connect the Phase I and Phase II HPE systems. The project is necessary for continuing normal operations at the Plant.	•					• 90 %		
Phase 2 Tertiary Effluent Meter Replacement	$116,000	2015 – 2017	Structural repairs and improvements. Replace sludge and scum collection system. Replace tank covers with aluminum sealed covers. Replace HPE system.	•							
Primary Sludge Withdrawal System	$298,000	2017 – 2019	Replace Primary sludge piping, valves and controls.	•							• 56 %
Phase 1 Bare Screens	$1,410,000	2018 – 2020	This project replaces the existing headworks bar screens with fully enclosed bar screens. These new bar screens replace the existing bar screens with components that reduce the hydrogen sulfide gas production in the headworks facility.	•				July 2018			

Project Title	Total Cost	Timeline	Project Description	Project Type			Project Status				
				O&M	Infrastructure Upgrade	Technology Upgrade	On Hold	Predesign Phase	Design Phase	In Bid and Award Phase	Under Construction
Primary Settling Tanks Improvements	$12,000,000	2019 – 2022	Structural repairs and improvements. Replace sludge and scum collection system. Replace tank covers with aluminum sealed covers. Replace HPE system.	•				July 2017			
Secondary Reactors Rehabilitation	$11,280,000	2019 – 2022	Structural repair and improvements, corrosion protection coating. Replace air pipes, manifold, dampers, and diffusers within the biological treatment phase of the wastewater treatment process. Replace existing deteriorated equipment and install new Inlet gates and Submersible recycle pumps. Replace Y-wall concrete covers with aluminum covers providing better erosion protection.	•				• 12 %			
Administration Building Improvement	$2,000,000	2017 – 2019	Replace inefficient and leaking windows with new weather light windows. Replace inefficient light system with power efficient light-emitting diode (LED) lighting system.	•				• 52 %			
Main Switchgear Air Conditioning	$77,250	2017 – 2019	Install a new air conditioning system in the existing electrical building at the Plant to protect new switchgear that will require larger capacity air conditioning.			•					• 52 %

6.3 CUMULATIVE EFFECTS FOR CULTURAL RESOURCES AND PALEONTOLOGICAL RESOURCES

The Proposed Action would not result in cumulative impacts to cultural or paleontological resources since no such resources would be impacted by the project. Other projects listed in Table 6-2 would likewise occur in areas that were already developed and would only occur after adequate surveys or database searches had been performed to clearly show that no cultural resources would be affect. The projects listed in Table 6-3 would occur within the developed portion of the easement areas, within the current boundaries of the Plant, and would occur in areas that have already been disturbed. Any proposed future projects that would occur in the currently undeveloped lands in the easement area, east of the east dike, may occur in native soils, where there would be potential to encounter previously undetected cultural or paleontological resources. Any such locations would be surveyed for cultural and paleontological resources prior to construction, and if any such resources were discovered, construction would not occur until they had been cataloged and were covered by a protection plan.

6.4 CUMULATIVE EFFECTS FOR GEOLOGY, SOILS, AND TOPOGRAPHY

Any potentially significant impacts related to seismic issues including earthquakes, settling, liquefaction, and slope failure would occur on a case by case basis, and would not result in cumulative impacts. Minor loss of topsoil would occur at most construction sites, but the cumulative effects would be minor and less than significant.

6.5 CUMULATIVE EFFECTS FOR HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

Some of the actions listed in Tables 6-2 and 6-3 likely involve construction and maintenance activities that use hazardous materials and petroleum products and may generate some waste. These actions would be expected to implement BMPs and compliance measures to safely manage hazardous materials and waste and minimize effects. Excavation for the Proposed Action would make a negligible contribution to cumulative effects on hazardous materials and waste. It is not likely that excavation of the Proposed Action would coincide with another project in time and physical proximity such that cumulative effects would occur. Likewise, excavation activities in the project area would be physically separate from other construction areas such that there would be no cumulative effects.

6.6 CUMULATIVE EFFECTS FOR LAND USE

Since the Proposed Action would not alter authorized land uses at the site during the operations period, and would not divide an established community, it is not likely to contribute to cumulative land use impacts. Any proposed projects occurring in the project vicinity would need to comply with the land use designations of the general plans that govern the area. Conformance with the applicable land use plans would not result in the implementation of incompatible land uses, and cumulative impacts would be less than significant. Current and proposed projects occurring at the Plant itself would not alter authorized land uses at the site during the operations period, and would not divide an established community. Therefore, these projects would not contribute to cumulative land use impacts.

6.7 CUMULATIVE EFFECTS FOR NOISE AND VIBRATION

Noise and vibration impacts from the Proposed Action would be less than significant. The proposed projects listed in Table 6-2 are located beyond the range of noise and vibration effects that would occur as a result of the Proposed Action. It is unlikely that implementation of the Proposed Action would coincide with the projects listed in Table 6-3 in time or occur in the same immediate vicinity as those projects such that cumulative effects for noise and vibration would occur. As a result, cumulative impacts would be less than significant.

6.8 CUMULATIVE EFFECTS FOR RECREATION

The Proposed Action could cause temporary, less than significant impacts to the enjoyment of users of the Japanese Garden due to noise and disturbance during construction. Temporary restrictions to other recreational facilities near the Plant could occur during construction staging and access. The proposed projects listed in Table 6-2 would not add to these effects. Ongoing and proposed projects listed in Table 6-3 would occur within the industrial portion of the Plant, and would not limit access to the Japanese Garden. Noise and disturbance due to construction associated with these projects could impact the enjoyment of visitors to the Japanese Garden, but these impacts would be temporary and less than significant and would not coincide with impacts associated with the Proposed Action. As a result, implementation of the Proposed Action and the projects listed in Table 6-3 would not lead to cumulative effects for recreation. Cumulative impacts to recreation would be less than significant.

6.9 CUMULATIVE EFFECTS FOR SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

In combination with other proposed or ongoing construction projects listed in Tables 6-2 and 6-3, the Proposed Action would likely result in a minor increase in the demand for construction-related services. Although the increase in economic activity associated with these projects would only last for the duration of the construction period, the cumulative effects would be to increase employment in the foreseeable future. This would be a beneficial cumulative impact to the surrounding community. The Proposed Action would not limit or otherwise negatively affect the economy of the region, and would not contribute to significant cumulative impacts associated with socioeconomic resources. Although the Proposed Action would occur near environmental justice communities, it would not place a disproportionate environmental burden on these communities, and would not contribute to cumulative impacts to these communities.

6.10 CUMULATIVE EFFECTS FOR TRAFFIC AND CIRCULATION

The Proposed Action would create temporary, less than significant impacts on circulation at intersections in the immediate vicinity of the Plant. The projects listed in Table 6-2 are dispersed from the Plant to a degree that additive effects on traffic and circulation associated with these projects are not likely to increase the cumulative effects to an appreciable degree. Furthermore, the Proposed Action would incorporate a traffic control plan which would take into account the projects listed in Table 6-2 and any of the projects listed in Table 6-3 that could occur during the construction period. Projects listed in Table 6-3 as occurring within the Plant are relatively minor and would result in minimal truck or worker commute trips. The traffic control plan and similar

plans for other proposed projects will ensure that cumulative traffic and circulation impacts remain less than significant.

6.11 CUMULATIVE EFFECTS FOR PUBLIC SERVICES

Cumulative effects for public services would occur if the Proposed Action, in combination with other ongoing, completed, or proposed projects, would increase the need for public services including fire, police, or other emergency services, or for services such as libraries or hospitals. The Proposed Action and the projects listed in Tables 6-2 and 6-3 would not increase the need for such services, as they would not increase the local population or contribute to increased hazards. There would be no cumulative impacts associated with public services.

6.12 CUMULATIVE EFFECTS FOR UTILITIES

It is assumed that all proposed projects identified in Table 6-2 and the projects listed in Table 6-3 that involve excavation would export waste products to area landfills. The Proposed Action would result in the export of up to 36,000 cy of material to area landfills, which is well within the remaining capacity of these facilities. Even if the other proposed projects resulted in similar volumes of waste products, the area landfills would have ample capacity to accept these materials. The proposed projects may cumulatively increase the need for water or power, but all projects would be constructed in consideration of the existing water and power availability and would not create the need for new facilities. Likewise, each of the projects listed in Table 6-2 would comply with the requirements of the NPDES permit for the communities in which they would be located, and each of the projects listed in Table 6-3 would comply with the requirements of the Plant NPDES permit, therefore cumulative impacts would be less than significant.

6.13 CUMULATIVE EFFECTS FOR ESTHETICS

The geographic scope of potential cumulative impacts for visual resources includes the project area and immediate vicinity. Cumulative esthetics impacts could occur if the Proposed Action and the projects identified in Tables 6-2 and 6-3 involved actions that would affect the same sensitive visual resources, or if impacts to visual resources arising from individual projects were either long-term or their construction schedules overlapped with the Proposed Action.

The Proposed Action and the projects listed in Table 6-3 would occur in an area that has already been disturbed by past actions, and which is located in a highly developed area. All construction associated with these projects would occur within the dike prism or on the sides of the dike, and would not impact the visual surroundings of Sepulveda Basin. Cumulative impacts would be less than significant.

The projects identified in Table 6-2 would not be within the same viewshed as the Proposed Action, so there would be no cumulative effects associated with the project.

6.14 CUMULATIVE EFFECTS FOR WATER RESOURCES

All present and reasonably foreseeable projects are subject to water quality control measures specified in the respective NPDES permits for the communities in which they are found. New developments would be subject to new development requirements in the Los Angeles County

MS4 permit to control pollutants in stormwater runoff. Discharges for each proposed project would be controlled by implementation of project-specific SWPPPs. Completion of the AWPF would increase the availability of purified water for groundwater recharge. Development of the Proposed Action and the ongoing and proposed projects listed in Tables 6-2 and 6-3 would not be expected to substantially alter drainage patterns or increase flood hazards. No significant cumulative impacts to water resources would be anticipated as a result of the Proposed Action.

7 OTHER NEPA CONSIDERATIONS

7.1 UNAVOIDABLE SIGNIFICANT EFFECTS

There would be no significant effects resulting from the Proposed Action. During the construction period, temporary effects could occur. However, it is anticipated that the application of mitigation measures would reduce all impacts to less than significant.

7.2 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

Construction of the Proposed Action would result in local short-term impacts and uses of resources, while providing long-term benefits through the improvement of flood protection, continued provision of adequate sewage and water treatment capacity and improved groundwater recharge.

Short-term environmental impacts related to project construction include generation of noise and dust, decline in esthetic conditions, increased potential for soil erosion, disturbance to common wildlife species in the area. Use of mitigation measures would eliminate or reduce these impacts. Following construction, the area would no longer be subject to these effects.

The operation of the Plant would not substantially change once all new components are constructed. The Plant would continue to operate and expand on a trajectory commensurate with growth and increasing water treatment needs in the region. The installation of the AWPF would provide increased groundwater recharge to the region.

7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

An irreversible or irretrievable commitment of resources would be the permanent loss or degradation of resources, which could not be recovered or reversed. During construction, irreversible commitments of resources would include the use of the following; fuel for heavy equipment, water for dust control or other construction activities, borrow area soils for dike raising, concrete and other materials for construction of new facilities, and laborer hours and equipment for construction work.

8 COMPLIANCE WITH FEDERAL LAWS

National Environmental Policy Act of 1969 (Public Law 91-190), as amended. This EA has been prepared in accordance with the requirements of NEPA of 1969 (42 U.S.C. 4321, as amended) and the CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 C.F.R. 1500-1508), dated 1 July 1988. NEPA requires that agencies of the Federal government shall implement an environmental impact analysis program in order to evaluate "major Federal actions significantly affecting the quality of the human environment." A "major Federal action" may include projects financed, assisted, conducted, regulated, or approved by a Federal agency. By completing an EA, the proposed project would comply with NEPA. Construction and operation of the upgraded dikes, and implementation of the new easement, would not significantly affect any resources outside the existing Plant or the general population including low income and minority populations.

Endangered Species Act of 1973, as amended. The Endangered Species Act protects threatened and endangered species, as listed by the USFWS, from unauthorized take, and directs Federal agencies to ensure that their actions do not jeopardize the continued existence of such species. Section 7 of the Act defines Federal agency responsibilities for consultation with the USFWS. There would be no effect on listed species. The nearest listed species habitat is least Bell's vireo territory, located over 1,000 ft. downstream of the project area on Haskell Creek. The habitat within Haskell Creek next to the project area is unsuitable for vireo life history requirements. Moreover, the City would conduct protocol surveys for avian biota prior to construction (EC-1) to ensure that there hasn't been any nesting by listed species in the meantime. If nesting pairs were identified during these surveys, the Corps would consult with USFWS on an informal basis to ensure that proposed mitigation measures were suitable to reduce potential effects to this species. Therefore, the Proposed Action is in full compliance with this act, and there would be no impact to listed species.

Migratory Bird Treaty Act. The MBTA (16 U.S.C. 703-712) prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the U.S. and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A "migratory bird" includes the living bird, any parts of the bird, its nests, or eggs. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the C.F.R.

As discussed in Section 3.1, Biological Resources, construction activities could result in a significant impact if an active migratory bird nest is disturbed. However, construction would be timed as much as possible to occur outside the migratory bird nesting season. If construction must occur during the nesting season, Environmental Commitment BR-1 would be implemented to postpone construction if an active nest of a migratory bird is detected. Therefore, the Proposed

Action would not result in the harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit and the actions would be consistent with requirements of the MBTA.

Clean Water Act. The Clean Water Act (CWA), as amended (33 U.S.C. 1251-1387) authorizes water quality programs; requires certification from the state water control agencies that a proposed water resource project is in compliance with established effluent limitations and water quality standards (Section 401); establishes conditions and permitting for discharges of pollutants under the NPDES (Section 402); and requires that any non-Corps entity acquire a permit from the Corps for any discharges of dredged materials into Waters of the United States (WOUS), including wetlands (Section 404). The Act also defines the conditions which must be met by Federal projects before they may make discharges into WOUS. Under the Section 404(b)(1) guidelines, as published in 40 C.F.R. 122.6, only the Least Environmentally Damaging Practicable Alternative should be recommended. The EPA has primary responsibility for implementing the programs designed to clean up WOUS.

The proposed project would not affect waters subject to Section 404, therefore Section 404 does not apply to this project. The proposed project and alternatives would not affect effluent releases or water quality as regulated under Section 401, and NPDES requirements would remain unchanged during construction and operations. Therefore, the proposed project and alternatives would be in compliance with the CWA.

Clean Air Act of 1970, as amended. The Clean Air Act (CAA), as amended (42 U.S.C. 7401-7671q), establishes Federal standards for seven toxic air pollutants. It also establishes attainment and maintenance of NAAQS (Title I), motor vehicles and reformulation (Title II), hazardous air pollutant (Title III), acid deposition (Title IV), operation permits (Title V), stratospheric O_3 protection (Title VI), and enforcement (Title VII). Under Section 176(c) of the CAA Amendments of 1990, the Lead Agency is required to make a determination of whether the Proposed Actions "conform" to the State Implementation Plan (SIP). Conformity is defined in Section 176(c); compliance with the SIPs is for the purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. If the total direct and indirect emissions from a Proposed Action are below the General Conformity Rule "de minimis" emission thresholds, then a Proposed Action would be exempt from performing a comprehensive Air Quality Conformity Analysis, and would be in conformity with the SIP. In addition, the analysis must consider whether the emissions would be "regionally significant" before determining no comprehensive Air Quality Conformity Analysis is required.

The Proposed Action would comply with rules and regulations used to regulate sources of air pollution, and would not release criteria pollutants above local, state, and Federal thresholds; therefore, the Proposed Action would be in compliance with the CAA.

National Historic Preservation Act. The NHPA (54 U.S.C. 300101 et seq.), protects historic and cultural resources. The NHPA requires that Federal agencies consider the effect of their undertakings, including Federally-licensed activities or programs, on properties eligible for the NRHP. NRHP evaluations were conducted for historic and prehistoric archeological sites located within the APE. The Proposed Action is not anticipated to affect cultural or historical resources. However, if any such resources were discovered during operation and maintenance, they would

need to be evaluated for their eligibility for inclusion in the NRHP pursuant to 36 C.F.R. 800.13(b).

The Corps' obligation is to consult with the SHPO, federally recognized Indian Tribes, and other interested parties to ensure that effects to any historic resources are fully considered.

Four steps are required for compliance with the NHPA, pursuant to 36 C.F.R. 800: (1) initiate the Section 106 process (establish the undertaking, identify the appropriate SHPO/THPO, plan to involve the public, identify other consulting parties); (2) identify significant resources (i.e., historic properties) that may be affected by an undertaking; (3) assess project impacts on those resources; and, (4) resolve adverse impacts by avoidance, minimization, or developing and implementing mitigation measures to offset or eliminate adverse impacts. All steps require consultation with interested Native American Indian tribes, local governments, and other interested parties.

Results of literature searches, field surveys and tribal consultation are coordinated with the SHPO. When an agency finds that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them, then the agency will make a "no historic properties affected" determination. If the agency finds that there are historic properties which may be affected by the undertaking, the agency will make a "historic properties affected" determination (36CFR Part 800.4(d)).

Archeological and Historic Preservation Act, as amended. The Archaeological and Historic Preservation Act, as amended (16 U.S.C. 469), requires that Federal agencies consider the effect of their undertakings, including Federally-licensed activity or program, on historic American sites, buildings, objects, and antiquities of national significance when taking actions that include, but are not limited to, flooding, the building of access roads, relocation of railroads or highways, and other alterations of the terrain caused by the construction of a dam.

The Proposed Action is not anticipated to affect archeological resources. However, if any such resources were discovered during construction, the Contractor would immediately cease excavation in the area of discovery and would not continue until directed to do so by the Corps' archeologist.

Americans with Disabilities Act of 1990, as amended, (42 U.S.C. 126 et seq.). Passed by Congress in 1990, the ADA is the nation's first comprehensive civil rights law addressing the needs of people with disabilities, prohibiting discrimination in employment, public services, public accommodations, and telecommunications. Buildings must be constructed to be ADA accessible.

ADA prohibits public entities, defined as any state or local government, or division thereof, from excluding any individual with a disability from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity. A "qualified individual with a disability" is an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or

activities provided by a public entity. By complying with the building codes of the City of Los Angeles, the Proposed Action would meet the requirements of the ADA.

Comprehensive Environmental Response, Compensation and Liability Act, Superfund Amendments and Reauthorization Act, and Emergency Planning and Community Right-to-Know Act (42 U.S.C. §§ 11001-11003). The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), passed in 1980, provided the EPA with the authority to identify and clean up contaminated hazardous waste sites. CERCLA is also referred to as "Superfund," and priority cleanup sites as "Superfund sites." In 1986, the Superfund Amendments and Reauthorization Act (SARA) reauthorized and continued CERCLA with certain amendments and additions. Additions included additional enforcement authorities and authorizing the Emergency Planning and Community Right-to-Know Act (EPCRA), which is Title III of SARA. The EPCRA of 1986 was created to help communities plan for hazardous substance emergencies by requiring hazardous chemical emergency planning and by requiring industry to report to government on hazardous chemical use, storage, and releases.

The EBS (Appendix D) performed for this project and this assessment found that the Proposed Action and alternatives would not occur in contaminated areas. Therefore, in combination with mitigation measures and BMPs to control and respond to inadvertent release of hazardous materials, the Proposed Action would be in compliance with CERCLA, SARA, and EPCRA.

Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.). The Resource Conservation and Recovery Act (RCRA), along with its implementing regulations and EPA policy and guidance, are the framework for the proper management of hazardous and non-hazardous solid waste. Individual states may implement hazardous waste programs under RCRA with EPA approval. In 1992, DTSC received authorization from the EPA to implement the RCRA, Subtitle C requirements and the associated regulations and thus became the primary authority enforcing the RCRA hazardous waste requirements in California. RCRA Subtitle C establishes standards for the generation, transportation, treatment, storage, and disposal of hazardous waste in the U.S. By adhering to and updating the Plants' Response Plan, the Proposed Action will remain in compliance with RCRA.

Federal Occupational Safety and Health Act (29 U.S.C. Ch.15, §§651-678). The OSHA administers this legislation which requires special training of handlers of hazardous materials, notification to employees who work in the vicinity of hazardous materials, acquisition from the manufacturer of material safety data sheets which describe the proper use of hazardous materials, and training of employees to remediate any accidental releases of hazardous material. The Proposed Action would not require the use of hazardous materials other than fuels or solvents generally used during construction, or alter current hazardous materials management activities at the Plant. Therefore, it would be in compliance with OSHA.

EO 11514 – Protection and Enhancement of Environmental Quality. Under this EO, the Federal government must provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. Federal agencies must initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals. This EA analyzes potential environmental effects associated with the project and alternatives. Where required, environmental commitments would be introduced and would be enforced by the

Corps to protect and enhance the quality of the environment in and around the Plant and the Sepulveda Dam Reservoir.

EO 11988 – Floodplain Management. EO 11988, Floodplain Management, outlines the responsibilities of Federal agencies in the role of floodplain management. Federal agencies are required to evaluate the potential effects of actions on floodplains, and should avoid undertaking actions which directly or indirectly induce growth in the floodplain or adversely affect natural floodplain values. Agency regulations and operating procedures for licenses and permits are directed to include provisions for the evaluation and consideration of flood hazards. Construction of structures and amenities in floodplains must consider alternative approaches that avoid adverse effects and incorporate flood proofing and other accepted flood risk management measures. Agencies shall attach appropriate use restrictions to property proposed for lease, easement, right-of-way, or disposal to non-Federal public or private parties. This EO requires Federal agencies to provide leadership and take action to: (1) avoid development in the base (100-year) floodplain unless it is the only practicable alternative; (2) reduce the hazards and risk associated with floods; (3) minimize the impact of floods on human safety, health and welfare; and (4) restore and preserve the natural and beneficial values of the base floodplain. By complying with the Corps' direction on the height of the dike and including levee superiority, and avoiding further development outside of the currently-diked areas to the degree possible, the Proposed Action is in compliance with this EO.

EO 12088 – Federal Compliance with Pollution Control Standards. This EO requires all Federal agencies to be in compliance with environmental laws and fully cooperate with EPA, State, interstate, and local agencies to prevent, control, and abate environmental pollution. This EA analyzes potential environmental effects associated with the project and alternatives. Where required, environmental commitments would be introduced and would be implemented by the City of Los Angeles and enforced by the Corps to protect and enhance the quality of the environment in and around the Plant and the Sepulveda Dam Reservoir, ensuring the Proposed Action would be in compliance with this EO.

EO 12898 – Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994. EO 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) was signed on February 11, 1994. This order was intended to direct Federal agencies "To make achieving environmental justice part of its mission by identifying and addressing ... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.] ..." To comply with the EO, minority and poverty status in the vicinity of the project was examined to determine if any minority or low-income communities would potentially be disproportionately affected by implementation of the Proposed Action. This EA includes an environmental justice analysis (Section 3.10) and is thus consistent with requirements and policies pertaining to environment justice.

Additionally, the project alternatives would not have a significant impact on operations within the Sepulveda Dam Reservoir, and as discussed in Section 3.12, Public Services, the proposed project would not create risk to human health and safety. The overall intent of this project is to support the greater good and improve overall public health and safety.

EO 13112 – Invasive Species. This EO requires Federal agencies to expand and coordinate efforts to prevent the introduction of invasive species and to minimize the economic, ecological, and human health impacts that invasive species may cause. Construction BMPs requiring trucks to be clean and free of weed seeds would ensure compliance with this EO.

EO 13148 – Greening the Government through Leadership in Environmental Management. Under this EO, environmental management considerations must be a fundamental and integral component of Federal Government policies, operations, planning, and management. The primary goal of this EO in the natural resources arena is for each agency to strive to promote the sustainable management of Federal facility lands through the implementation of cost-effective, environmentally sound landscaping practices, and programs to reduce impacts to the natural environment. To ensure compliance with this EO, revegetation of the area disturbed during construction will incorporate native species to the degree possible.

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ACRONYMS

ADA	Americans with Disabilities Act
AOP	the advanced oxidation processes
APE	area of potential effect
APRMI	ArchaeoPaleo Resource Management, Inc.
Ave.	Avenue
AVORS	Additional Valley Outfall Relief Sewer
AWPF	Advanced Water Purification Facility
BAC	biologically activated carbon
Blvd.	Boulevard
BMPs	Best Management Practices
C.F.R.	Code of Federal Regulations
CAA	Federal Clean Air Act
CAAQs	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CANG	California Air National Guard
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	Cubic feet per second
City	City of Los Angeles
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
Corps	U.S. Army Corps of Engineers
CRMP	Cultural Resources Monitoring Plan
CWA	Clean Water Act
cy	cubic yards
dB	decibels
dBA	A-weighted decibel
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DTSC	California Department of Toxic Substances Control
EA	Environmental Assessment
EBS	Environmental Baseline Survey
EO	Executive Order
EPA	U.S. Environmental Protection Agency

EPCRA	Emergency Planning and Community Right-to-Know Act
EVRWL	East Valley Recycled Water Line
FCA	Flood Control Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
ft.	feet
ft^2	square feet
GHG	greenhouse gas
HPE	high-pressure effluent
HVAC	heating, ventilation, and air conditioning
HWRP	Hyperion Water Reclamation Plant
I-405	Interstate 405/San Diego Freeway
LABOE	City of Los Angeles Department of Public Works Bureau of Engineering
LACDA	Los Angeles County Drainage Area
LADOT	City of Los Angeles Department of Transportation
LAFD	City of Los Angeles Fire Department
Lake Balboa	Balboa Recreation Lake
LAPD	City of Los Angeles Police Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	City of Los Angeles Department of Public Works, Bureau of Sanitation
lbs	pounds
lbs/day	pounds per day
LED	light-emitting diode
Leq	equivalent continuous level
LOS	level of service
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MF	microfiltration
mg/L	milligrams per liter
mgd	million gallons per day
MT	metric ton
N/A	Not available
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NaOCl	sodium hypochlorite
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
No.	Number
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System

NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O&M	operations and maintenance
O_3	ozone
OSHA	Federal Occupational Safety and Health Act
PCE	Perchloroethylene
Plant	Donald C. Tillman Water Reclamation Plant
PM	particulate matter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter 10 microns or less in diameter
ppb	parts per billion
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RECs	recognized environmental conditions
RO	reverse osmosis
ROG	Reactive Organic Gases
SARA	Superfund Amendments and Reauthorization Act
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
Sepulveda Dam Reservoir	Sepulveda Dam Flood Control Reservoir
SHPO	California State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
SPF	Standard Project Flood
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCE	trichloroethylene
TDS	total dissolved solids
TMP	Traffic Management Plan
UCMP	University of California Museum of Paleontology
µg/m3	micrograms per cubic meter
US-101	United State Highway 101/Ventura Freeway
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VGS	Valley Generating Station
WOUS	Waters of the United States

APPENDICES

APPENDIX A – Bird Species Identified in 2017 Survey

APPENDIX B – Air Quality and Greenhouse Gas Technical Study

APPENDIX C – Tribal Outreach Letters

APPENDIX D – Environmental Baseline Survey

APPENDIX E – Baseline Noise Monitoring Data