Initial Study

Sunset Complex Project

Prepared for

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Water and Power Department
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April 2022

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SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF INITIAL STUDY

The California Environmental Quality Act (CEQA) (*California Public Resources Code* §21000 et seq.) and the State CEQA Guidelines (*California Code of Regulations,* Title 14, §15000 et seq.) require that local government agencies, prior to taking action on projects requiring discretionary approval, consider the environmental consequences of such projects. Pursuant to Section 15367 of the State CEQA Guidelines, the City of Pasadena (City) is the Lead Agency for the proposed Sunset Complex Project (Project). As the Lead Agency, the City has the principal responsibility for carrying out the Project and has the authority for approving the Project and its accompanying environmental documentation.

The City has prepared this Initial Study (IS) to determine the potential environmental impacts of the proposed Project, prior to preparation of an Environmental Impact Report (EIR). The analysis contained in this IS identifies the environmental factors that will have no impact, a less than significant impact, a less than significant impact with mitigation, or a potentially significant impact as a result of Project implementation. The topics which are not found to have a potentially significant impact have been addressed within this IS and will be scoped out of the EIR. This will allow the EIR to focus the analysis on those environmental factors identified herein for which the Project would have a potentially significant impact.

As the Lead Agency, the City has commissioned the preparation of this IS and has reviewed and revised, as necessary, all submitted drafts and technical studies to reflect its independent judgment, including reliance on City staff for the review of all technical reports. Data for this IS was obtained from on-site field observations; discussions with affected agencies; review of available technical studies, reports, guidelines, and data; and review of specialized environmental assessments prepared for the Project.

1.2 PROJECT SUMMARY

The proposed Project would construct two replacement reservoirs and associated appurtenances including piping connections through the floor of the tank with concrete encasement beneath the floor, a removable silt stop, exterior and interior ladders with safety devices, two access hatches on the roof of each tank, guardrails at the roof ladder, and a roof center vent. The existing reservoirs (Sunset Reservoir 1 [SR1] and Sunset Reservoir 2 [SR2] totaling 15.5 MG of storage) each have several cracks in the walls that leak depending on water levels. Additionally, recent seismic evaluations have identified necessary seismic improvements for the reservoirs' roofing system. Therefore, due to the age and condition of the existing reservoirs, Pasadena Water and Power (PWP) plans to replace these reservoirs with two new prestressed concrete circular reservoirs in the same location. Prestressed Concrete Tank Reservoir 1 (Reservoir 1) would have a capacity of 4.9 million gallons (MG) and Prestressed Concrete Tank Reservoir 2 (Reservoir 2) would have a capacity of 6.1 MG.

In addition, the Project would install a new on-site groundwater treatment plant (GWTP) to be able to treat for perchlorate and volatile organic compounds (VOCs) and utilize their local groundwater supply. This would provide PWP with greater water supply reliability and operational flexibility. The GWTP would be installed in two phases. Phase 1 would allow for a total treatment capacity of up to 3,000 gallons per minute (gpm) and would treat for perchlorate and 1,2,3-Trichloropropane (TCP). The second phase, Buildout, would increase the total

treatment capacity to 4,500 gpm and may include up to 800 gpm of side stream for nitrate removal using biological treatment.

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS

Section 1.0 of this IS provides the purpose of the IS, a summary of the Project, and a summary of the Project's environmental impacts; Section 2.0 discusses the existing environmental setting, and Section 3.0 provides a discussion of the improvements proposed as part of the Project. Section 4.0 of this IS evaluates the impacts that would occur with Project implementation. As analyzed, no impacts on Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Wildfire would result with Project implementation. Through compliance with existing regulations, the Project would have less than significant impacts on Biological Resources, Cultural Resources (Archaeological Resources), Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, and Utilities and Service Systems, and no mitigation measures (MMs) would be required.

Potentially significant impacts may result to Aesthetics, Air Quality, Cultural Resources (Historical Resources), Energy, Greenhouse Gas Emissions, Noise, and Tribal Cultural Resources. These issue areas will be further analyzed in the EIR, and MMs will be developed as appropriate.

SECTION 2.0 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The Project site is located in western Pasadena at the intersection of Sunset Avenue and West Mountain Street (Assessor's Parcel Number 5728-021-916), as shown on **Exhibit 2-1**, *Regional Location*, and **Exhibit 2-2**, *Project Vicinity Map*. The Project site is bordered by residences to the north, Sunset Avenue to the east, West Mountain Street to the south, and City of Pasadena buildings to the west. Surrounding land uses also include Brenner Park to the south, Interstate 210 (I-210) to the west, and residential uses on all sides. All proposed Project components under the scope of the Project would be located within the boundary of the existing site, with the exception of pipeline, mechanical and street improvements and site enhancements that would occur within the public right-of-way on Sunset Avenue and Mountain Street adjacent to the reservoir property.

The Project site can be accessed via I-210 by exiting on Mountain Street immediately west of the Project site. The site can also be accessed via West Mountain Street and from the north along Sunset Avenue.

2.2 PROJECT BACKGROUND AND NEED

PWP currently imports approximately 65 percent of its potable water from Metropolitan Water District of Southern California (MWD) of which the City is a member agency. MWD imports water from the Sacramento-San Joaquin Delta (Delta) via the State Water Project (SWP) and from the Colorado River Aqueduct (CRA). The remaining approximately 35 percent of the City's potable water is supplied from the Raymond Basin aquifer (PWP 2020a). A minimal, varying portion of potable water is purchased from neighboring water agencies, which includes a combination of surface and groundwater. The overall intent of the Project is to replace aging and deficient water storage and treatment infrastructure to ensure that the City can continue to provide reliable and clean drinking water.

2.3 EXISTING CONDITIONS

2.3.1 LAND USE

The Project site is zoned as Public and Semi-Public (PS) in the City's Zoning Map and designated as Institutional in the City's Land Use Plan diagram (City of Pasadena 2018a, 2015a). The site is owned, operated, and maintained by the City. The Project site is bordered by residences to the north, Sunset Avenue to the east, West Mountain Street to the south, and City of Pasadena buildings to the west. Surrounding land uses also include Brenner Park to the south, I-210 to the west, and residential uses on all sides.

2.3.2 EXISTING FACILITIES

As part of PWP's critical water supply infrastructure, PWP owns and operates Sunset Reservoir, located at the corner of Sunset Avenue and West Mountain Street. This facility consists of two partially buried, concrete lined reservoirs totaling 15.5 MG of storage (SR1 can store 5.6 MG and SR2 can store 9.9 MG), two well facilities (Bangham Well and Sunset Well) with a total capacity of 4.4 MG, a disinfection facility, the Glorieta Pump Station (PS), and the Sheldon Building housing electronic controls for the existing MWD point of interconnection (POI). The reservoirs are fed a blend of local well supplies and MWD import supplies to meet their water

quality standards due to key constituents found in the local well supplies. These constituents include perchlorate, TCP, and nitrate. The Glorieta PS pumps from the Sunset pressure zone (including SR1 and SR2) to the Calaveras and Sheldon pressure zones. The combination of local groundwater and MWD-imported water that is delivered to the existing reservoirs is blended in an inlet structure referred to as the A-Basin. The layout of the existing facilities is shown on **Exhibit 2-3**, *Existing Sunset Reservoir Facilities*.

The original Sunset Reservoirs were open earth embankment structures first constructed in the late 1800s and early 1900s. The reservoirs were lined with concrete in the 1890s/1900s and were also covered with wood-framed roofs and corrugated steel deck. Four-foot concrete walls were constructed around the reservoirs in the 1930s to increase the storage capacity.

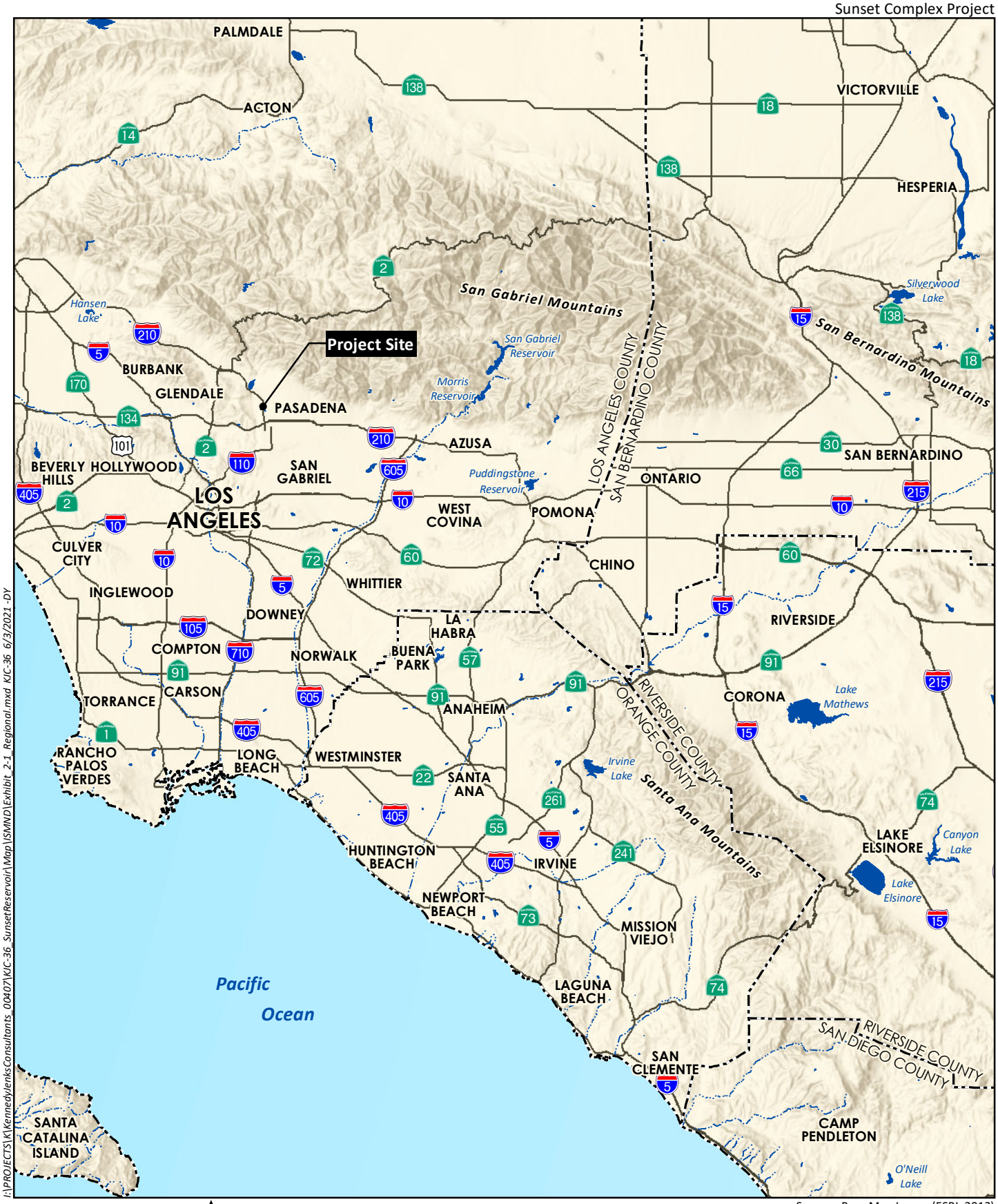
Dive inspections discovered the presence of several cracks in the walls of both SR1 and SR2 that leak depending on water levels. To minimize losses, PWP deliberately operates the reservoirs at a lower high-water level, reducing PWP's overall storage capacity. Recent seismic evaluations also identified necessary seismic improvements for the reservoirs' roofing system. Therefore, due to the age and condition of the existing reservoirs, the reservoirs are in need of replacement.

2.4 CEQA REVIEW PROCESS

This IS has been prepared to analyze the impacts associated with construction and operation of the proposed Project. The City of Pasadena is the Lead Agency for the CEQA environmental review process and has submitted a Notice of Preparation (NOP) and IS to responsible and trustee agencies, as well as other potentially affected agencies. The NOP and relevant attachments are available online at https://ww5.cityofpasadena.net/water-and-power/sunsetcomplex/ and https://www.cityofpasadena.net/planning/environmental-notices/. The NOP and associated technical reports can also be viewed in person at the PWP office (150 South Los Robles Avenue, Suite 200), La Pintoresca Branch Library (1355 North Raymond Avenue), City of Pasadena Office of the City Clerk (100 North Garfield Avenue, Room S228), and City of Pasadena Permit Center (175 North Garfield Avenue). Notices were also posted at the site and in the surrounding neighborhood.

In accordance with Section 15082 of the State CEQA Guidelines, a NOP is subject to a 30-day public review period and will be submitted to the State Clearinghouse for review by State agencies. Accordingly, the public review period for this NOP and IS has been set from **April 7, 2022 to May 9, 2022.** In accordance with Section 15082 of the State CEQA Guidelines, the EIR will include environmental information related to a responsible or trustee agency's area of responsibility as requested during the public review period.

In reviewing the IS, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and whether these issues require further analysis in an EIR. Comments should be sent in writing and postmarked by 5:00 pm on **May 9, 2022**, by mail or email to Mr. Michael Lin of the City of Pasadena at the address below.



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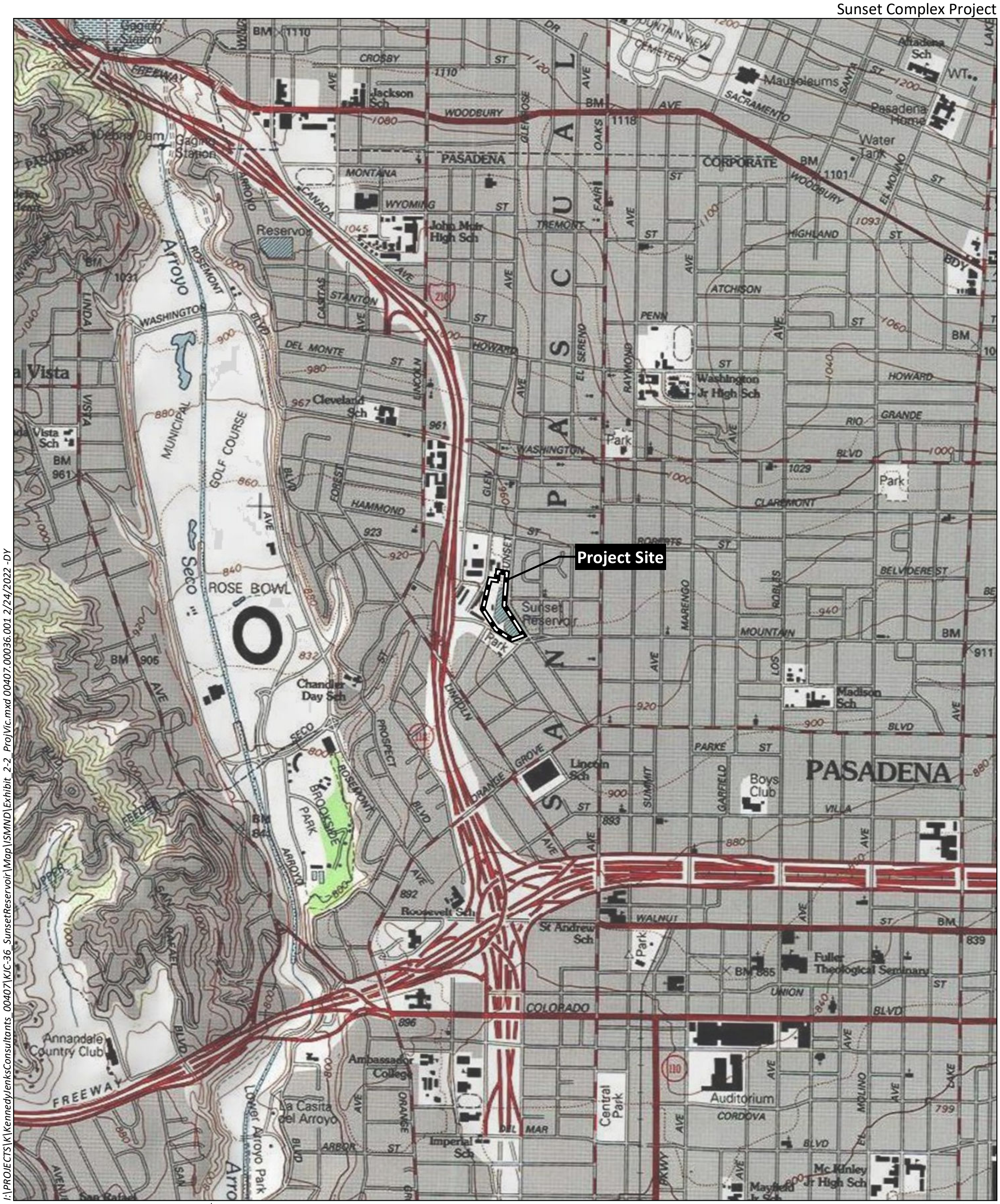
0 10 Miles

Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Exhibit 2-1



Source: PASADENA 7.5' Quad (USGS)

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HELIX Environmental Planning

Project Vicinity Map

Exhibit 2-2

Sunset Complex Project

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0 200 Feet

Source: Aerial (Nearmap, 2020)

HELIX Environmental Planning

Existing Sunset Reservoir Facilities

Exhibit 2-3

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email: mlin@cityofpasadena.net

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SECTION 3.0 PROJECT DESCRIPTION

Information for this Project Description is based primarily on the Sunset Complex Final Basis of Design Report (BODR), prepared by Kennedy Jenks for PWP dated March 9, 2021 and information provided by PWP staff. The Project site plan is provided in **Exhibit 3-1**, *Site Plan*, of this IS.

3.1 PROJECT COMPONENTS

3.1.1 REPLACEMENT RESERVOIRS

Tanks

The Project would construct two new reservoirs at the site, herein referred to as Reservoir 1 and Reservoir 2. Reservoir 1 would be constructed to have an internal diameter of approximately 210 feet and a capacity of 4.9 MG. Reservoir 2 would be constructed to have an internal diameter of approximately 224 feet and a capacity of 6.1 MG. The reservoirs would be constructed at different sizes due to the geometry of the existing site, which narrows at the south end of the site. By installing the smaller reservoir (Reservoir 1) in the south end of the site, the Project would be able to preserve more space for the GWTP and parking at the north end of the site. Collectively, the two reservoirs would provide a total capacity of 11.0 MG.

The two proposed reservoirs would be circular, prestressed concrete tanks with a height of approximately 12 feet above finished grade on the north side of Reservoir 2 and 18 feet above finish grade on the south side of Reservoir 1, which would be designed and constructed in accordance with the American Water Works Association (AWWA). The tanks would have Type I cast-in-place concrete core walls with vertical prestressed reinforcement and circumferential strand prestressing. The floors, wall footings, column footings, core walls, and two-way column supported flat slab roofs would be constructed of concrete. The joints between the wall footings and the core walls and the roof slabs would be anchored flexible joints with minimum restraint of radial movement. After circumferential prestressing strand is applied to the core walls, the strands would be covered with pneumatically applied concrete (shotcrete) as embedment and corrosion protection of the circumferential wall reinforcement. The circumferential strand and vertical tendons for prestressing would be galvanized for corrosion protection.

The two structures would have 6-inch-thick membrane floors, and concrete core walls between 10 and 14 inches thick. The roofs would consist of two-way spanning flat slab approximately 12 inches thick that are supported by concrete columns with square column footings above the membrane floor slab and square drop panels recessed beneath the underside of the roof slab. The 12-inch-thick roof would support potential future installation of photovoltaic solar panels that could be mounted to the roofs of the reservoirs. A waterproofing system would be incorporated into the roofs of the reservoirs to protect the drinking water from rainwater intrusion associated with future cracks. The roofs would be provided with roof scuppers and downspouts to direct rainwater from the roof to the site drainage facilities. The tanks would also include polyvinyl chloride (PVC) waterstops placed in joints and between the floors, walls, and roofs to prevent the passage of water through a construction of expansion joint between adjacent elements of concrete construction. The tank walls would receive a natural gun shotcrete finish in an earth tone color and roof would receive a smooth trowel finish.

The perimeter and floor of the proposed tanks would contain drainage systems to limit hydrostatic pressures on the exterior face of the tank walls and floors. The automated

circumferential prestressing and shotcrete for the wall of the tanks would require 10 feet of clearance outside of the wall of the tanks for the prestressing wrapping machinery.

Depending on the site grading differential, backfill may be placed around both reservoirs. The depth of the backfill is dependent on the sliding stability of the empty tanks. Where possible, the tanks would be backfilled approximately 12 feet above the base of the walls all around the tanks to restore grades to their original levels or higher to provide positive drainage away from the new tanks. If the backfill depth is less than 12 feet, sliding calculations and the appropriate design modifications would be provided as part of the final design.

Piping

The inlet, outlet, and drain pipelines for each of the reservoirs would enter the tanks through the floors of the tanks and would be completely encased in concrete beneath the floor and footings of the tanks. Concrete encasement of all piping placed under the foundation and/or floor slab would be used for added corrosion protection. It also reduces the potential for leakage of the piping during the useful life of the structure. Concrete encasement provides a uniform, dense, stiff backfill around the pipes that eliminates potential problems with inadequate compaction of soil under and around the pipes. Flexible couplings would be provided outside the wall footings to accommodate movement caused by differential settlement or seismic activity on piping connections.

Inlet and Outlet

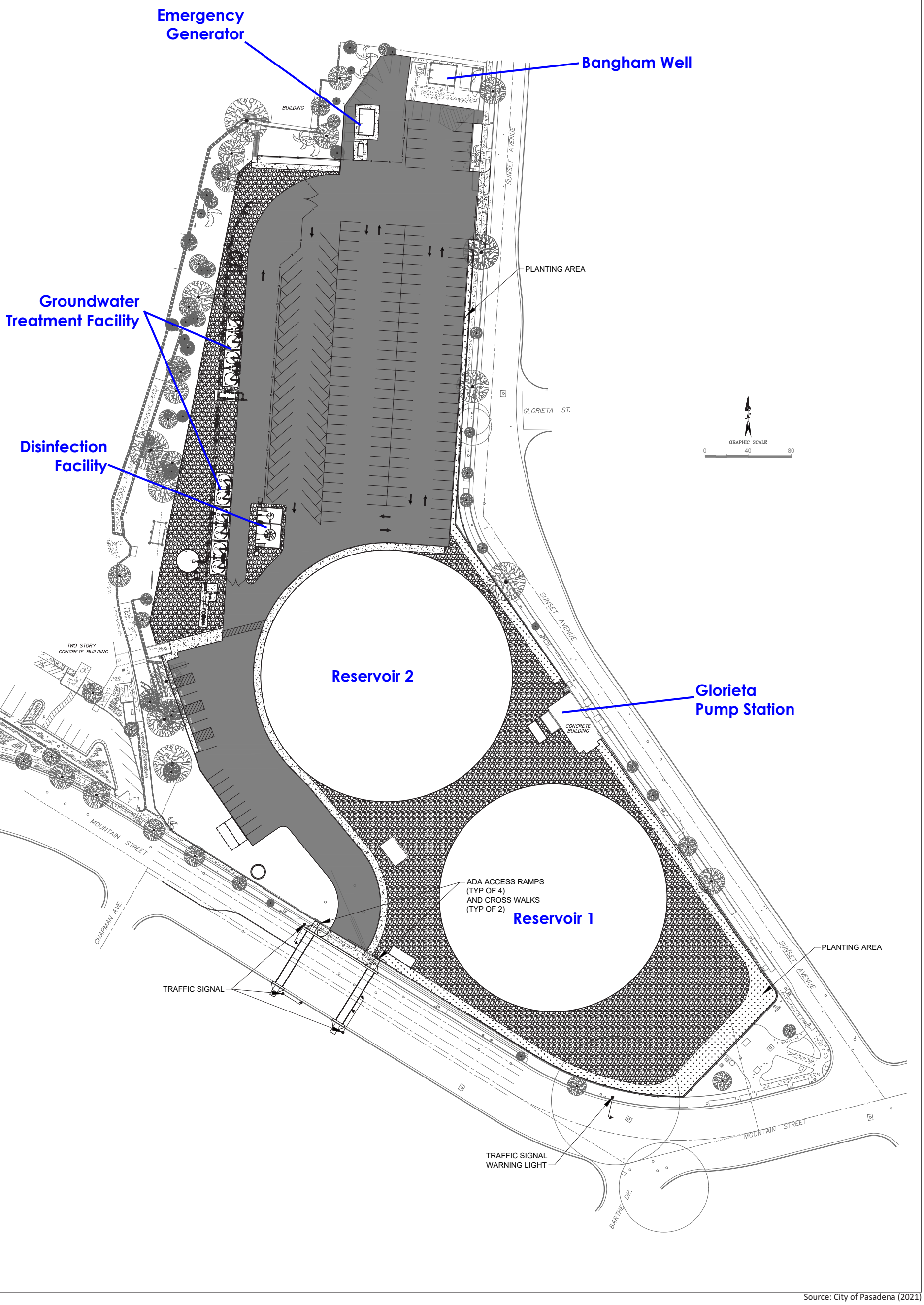
For the reservoirs, separate 36-inch diameter inlet and outlet pipes would penetrate the tank floor slab and pass beneath the perimeter footing. The inlet and outlet points in the reservoirs would be separated by approximately 180 degrees to minimize water from short circuiting. The pipes would be encased in concrete starting where they pass under the perimeter footing and continue under the floor. Both pipes would be oriented vertically and would extend above the floor a minimum of 6 inches to prevent sediment on the floor from entering the distribution system. Buried, manually operated isolation valves on the inlet and outlet pipes would be provided just outside the tank perimeter.

Reservoir Seismic Isolation Valve System

PWP may implement a seismic isolation valve system in the new reservoir design to prevent the reservoirs from excessively draining during a recorded seismic event coupled with an unusually large increase in downstream system demand (indicative of a water main break). One option is the FLOSAFE Flow Monitoring Safety System by FLOLOC, which only shuts valves when a break in the pipeline is detected in the minutes after a serious seismic event, eliminating the possibility of an unnecessary shutdown. This system has been successfully implemented for several other Southern California water agencies/districts. If implemented, the FLOSAFE system would be installed on the downstream isolation valve of one of the reservoirs so that the other is still available to the distribution system in case fire suppression is required following the seismic event and maintain minimum system pressure.

Reservoir Mixing

The design of the circular prestressed concrete reservoirs reduces the likelihood for creation of any mixing “dead zones” in the reservoirs. Given that these reservoirs serve PWP’s largest



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Source: City of Pasadena (2021)

pressure zone, the reservoirs are expected to cycle regularly, reducing concerns for water age and residual management.

Overflow and Drain

The overflow pipe for each reservoir would be designed for a 9,500-gpm flowrate. The overflow weir, reducing inlet, and vortex breaker would be sized to pass the design flow at the maximum static water surface permitted. The overflow discharge pipes would extend beneath the floor and perimeter wall footing and be piped to the drain vault structure where an air gap would be provided. The termination point of the overflow pipes would include reinforced elastomeric check valves or flap valves to prevent small animals from accessing the tanks through the overflow pipe. The discharge point would include an air gap to prevent contamination between the tank and the discharge point. The overflows on each tank would include a 48-inch diameter overflow weir cone reducing to a 24-inch diameter overflow pipe that would extend beneath the floor and perimeter wall footing and would then be piped to the drain vault structure.

A 6-inch diameter drain pipeline valve outside the tanks would be provided to facilitate draining each of the reservoirs and dispose of washdown water during inspection and cleaning. The drain pipeline would be separate from the outlet pipeline for each tank. The drain pipelines would typically be located on west sides of the tanks and discharge to the drain vault located west of the tanks where an air gap would be provided before discharge to the storm drain system in West Mountain Street.

Underdrain

While not necessary to prevent hydrostatic uplift, a separate underdrain system would be provided for each reservoir to monitor each of the tanks for leakage from the tank floors, joints in the tank floors, and the joints between the tank foundations and walls. The underdrain systems would consist of a geomembrane liner placed beneath the aggregate base subgrade material beneath the floor of each of the tanks that would direct any water from beneath the tanks to a perimeter drain consisting of drain rock and a 6-inch diameter perforated foundation drain pipeline. The underdrain pipelines would discharge to a daylight point at the ground surface or in the drain vault for observation and monitoring.

Roof Ventilators

A single roof vent located near the center of each reservoir would be provided to admit air at a flow rate equal to the maximum tank outflow rate. The exhaust capacity of the ventilator would be at least equal to the 9,500-gpm design fill rate of the reservoirs. Ventilator screens would be protected from vandalism, but would also be accessible for inspection, screen replacement, and cleaning to remove insects or airborne lint, pollen, or dust. Vents would be designed to prevent the entry of rainwater, runoff, birds, insects, rodents, or other animals. The roof vent would be 48 inches in diameter.

Roof Hatches

Two hatches would be provided on the roof of each reservoir: one 42-inch square hatch for personnel entry and a second 4-foot by 8-foot hatch for equipment. Roof hatches would be designed to prevent leakage into the tank and would be locked to resist unauthorized entry and vandalism. Roof hatches would be set on curbs at least 9 inches high. All covers would turn down at least 1.5-inch over the curbs or contain a gutter system to carry water away from the

roof opening. All frames and covers would consist of aluminum. Roof hatches would be specified to include a channel to collect drain water, compression spring operators, hold-open arms, fall protection grating, debris gasket, and recessed hasp for padlock. Hatches would include intrusion alarms to signal unauthorized entry.

Exterior and Interior Ladders and Guardrail

One exterior ladder and one interior ladder would be provided for access to each reservoir. Ladders would conform to Occupational Safety and Health Administration (OSHA) requirements and would be constructed of corrosion resistant materials. Ladders would be provided with OSHA-compliant stainless-steel fall prevention devices. A limited amount of guardrail would be provided on the roof of the tanks directly adjacent to the exterior ladders and access hatches. All guardrail posts, rails, and toe boards would be of aluminum construction in accordance with California Building Code (CBC) and OSHA requirements.

3.1.2 GROUNDWATER TREATMENT PLANT

The proposed GWTP would provide treatment for the removal of perchlorate and VOCs, with space reserved for a future biological nitrate treatment system. The initial phase, Phase 1, would consist of ion exchange for perchlorate removal and granular activated carbon for VOCs removal, with a treatment capacity of up to 3,000 gpm, which equates to the capacity of two wells. Space would be reserved on-site for a future phase (Buildout) to increase the treatment capacity up to 4,500 gpm for VOC and perchlorate with a side stream nitrate treatment system capable of producing 800 gpm of nitrate treated effluent. Nitrate analyzers would be provided with Phase 1.

Treatment Process

The treatment process would remove perchlorate and VOCs, with a space reserved for a future nitrate treatment system. Ion exchange (IX) would be used for treating perchlorate, and liquid phase granular activated carbon vessels (GAC) would be used for TCP removal. Each of these elements of the GWTP is explained below.

Ion Exchange Pre-Filtration Treatment System

The first step of the treatment process is pre-filtration which provides supplemental protection for the IX treatment system by minimizing fouling, clogging, or general damage caused by particulates and debris that may be present. The GWTP's pre-filtration system would filter raw groundwater from the wells upstream of the IX system using cartridge filters.

Cartridge filters are depth-type filters in which particles and contaminants are captured throughout the total thickness of the filter. Standard diameter cartridge filters can be manufactured as pleated, string wound, or melt-blown, with pleated cartridge filters offering the largest surface area and solids holding capacity. Large diameter cartridge filters are utilized for large flow applications as fewer elements are needed for treatment, reducing the labor effort required to perform a filter change out. As a result of the high system flows, large diameter filters would be required. The pre-filtration system would consist of a horizontal, carbon steel pressure vessel housing a bank of cylindrical wound depth polypropylene or string wound cartridge filter elements. Two cartridge filters would be required for the Phase 1 flow, and one additional filter would be required for Buildout flow.

Ion Exchange Treatment System

In drinking water treatment applications, IX is typically applied to selectively remove a specific contaminant ion (such as perchlorate, nitrate, or arsenate) and exchange it with a less harmful species (such as sodium or chlorine). The IX process utilizes a resin that has an affinity for the targeted contaminant ion, in this case, perchlorate.

Single-use IX is an adsorption treatment process in which the feed water (e.g., groundwater) is passed over a resin bed. After the resin capacity is exhausted, the resin is sent for disposal rather than being regenerated on-site. The resin is either placed in a landfill or thermally destroyed. Therefore, no waste brines are generated. This configuration is used at sites where brine disposal is expensive or prohibited for regulatory or other purposes. Single-use IX is commonly used to remove perchlorate with perchlorate-specific resins.

The Project's single-use IX system would consist of a fixed bed in a lead-lag configuration. In Phase 1, the IX system would consist of two pairs of IX vessels (4 total) each filled with perchlorate-specific resin. In Phase 2, a single pair of IX vessels would be added raising the total to three pairs. Each vessel would be 12 feet in diameter and approximately 16 feet in height. Each vessel in a pair would be joined by a series of pipes and valves (header) and the treated water would be piped to a collector main.

During the production cycle, pumped groundwater would be passed through a resin bed in the lead vessel that selectively removes perchlorate and exchanges the constituent for chloride. The treated water would then flow into the lag vessel as a polishing step or as an additional protection barrier for perchlorate break through. Each vessel would contain approximately 424 cubic feet of resin. When the resin in the lead vessel would become exhausted, the single pair would be taken offline and the exhausted resin would then be removed from the lead vessel and replaced with new resin. This pair would return to service but the prior vessel in the lag position would rotate to the lead position and the vessel with the new virgin resin would operate in the lag position. The exhausted resin would then be disposed of off-site.

Liquid Phase Granular Activated Carbon Vessel Treatment System

GAC treatment would be implemented for the removal of VOCs such as TCP, a human- made chlorinated hydrocarbon typically used for cleaning and degreasing or as part of pesticide products. GAC treatment has been identified by the State Water Resources Control Board Division of Drinking Water (DDW) as the best available technology (BAT) for TCP removal. GAC treatment typically consists of a fixed-bed of granular activated carbon in steel vessels either in a parallel or lead-lag configuration. GAC removes contaminants through adsorption. When GAC media is no longer able to adsorb contaminants, the media must be replaced with new carbon.

The GAC treatment system would consist of three trains of 12-foot diameter adsorber vessels in a lead-lag configuration. Each pair of vessels is equipped with a centrally located valve manifold and interconnecting piping. Each vessel would be approximately 24 feet in height. The centrally located valve manifold allows isolation of each pair of vessels for removing/filling of GAC or backwash operations. Each vessel is sized to hold up to 40,000 pounds of GAC. The amount of GAC media per vessel would remain the same in Phase 1 and Buildout. For Phase 2 an additional two trains (4 vessels) would be added. In a lead lag configuration, when the carbon in the lead vessel becomes exhausted the pair of vessels is removed from service. Similar to the IX system, the exhausted carbon is removed from the lead vessel and replaced with virgin or reactivated carbon and prepared for backwashing operation. When completed the lead vessel is

rotated into the lag position, and the former lag vessel is rotated into the lead position. The pair is returned to service. All valves are located at low elevations for ease of operation and maintenance. The water in this system is applied in a down flow mode. The GAC vessels are occasionally backwashed to remove clogging of the columns by suspended particles.

Backwash Storage Tanks

When the new GAC media would be installed, a backwash would be required to remove any carbon fines. A backwash would also occur every three months to remove clogging of the media bed by suspended particles. Potable water from the distribution system would be used to backwash the vessels.

After backwashing, the wastewater would be stored in the backwash waste tank and then gravity fed from a weighted floating suction strainer to disposal in the sanitary sewer. Pulling water from the surface of the tank would reduce the solids loading on the sanitary sewer and promote settling of the fines at the bottom of the tank. The float would automatically shut off a few feet above the bottom of the tank to prevent suctioning fines. Cleanout would have a frequency of once per year or when the depths of solids reach one foot, whichever comes first. Fines would be periodically removed from the tank by a vacuum truck.

Backflow preventors would be installed along the disposal pipeline to prevent backflows from the sanitary sewer. In addition, an air gap would be installed prior to the backwash waste tanks to prevent any backwash wastewater from coming back into the GAC vessels and to prevent a cross connection with the sanitary sewer.

Buildout Nitrate System

A future buildout phase would include biological treatment for nitrate removal by denitrification. Provisions are included in the Phase 1 design to ensure the Buildout nitrate treatment system can be installed and integrated without major modifications to the main process. First, adequate space has been identified on the site for the system based on a nitrate system design flow of 800 gpm. Second, mechanical fittings would be installed for future connections and for balancing flow between the main treatment system and the future side stream system.

Waste Streams

Operation of the GWTP would produce several process residuals that would be collected and managed in accordance with state and local requirements. Well flush water would be directed to the nearby storm drain on West Mountain Street and GAC backwash waste and instrumentation waste would be directed to the sanitary sewer, located along Sunset Avenue.

Chemical Storage and Handling

Water supplied to PWP from MWD uses chloramines for disinfection. To match the MWD disinfection strategy, PWP currently produces chloramines by the combination of sodium hypochlorite and aqueous ammonia before storing the treated water in the existing reservoir. The new facility would use liquid ammonium sulfate instead of aqueous ammonia. The existing chemical equipment would be relocated to a canopy shade structure and the existing canopy would be demolished.

Due to the hazardous nature of sodium hypochlorite and ammonium sulfate, secondary containment would be required for each material. The secondary storage for each tank would be concrete with a cover to reduce direct sunlight and protection from rainwater. Each containment would be sized to contain 110 percent of the storage tank volume. The containment would be equipped with a sump and level limit controls set to alarm at the detection of liquid in the sump. This would prevent the discharge of incompatible liquids into the same area and allow for rapid response in the case of leaks.

Adequate safety provisions would be implemented including stairs in and out of the containment areas, eye wash stations in each containment area, and eye wash stations at the chemical fill connections. Additionally, a full height wall would be installed between the sodium hypochlorite, ammonium sulfate, and electrical areas.

Product Water Storage

Water treated by the Project would be discharged directly from the GWTP to the two proposed reservoirs. There would be no intermittent storage or product water pumps between the final treatment stage (GAC) and the reservoirs.

3.1.3 CIVIL/SITE IMPROVEMENTS

Site Ingress/Egress

The main ingress/egress would be located at the northeast corner of the site. The existing employee entrance to the north along Sunset Avenue would be widened to allow for safety and ease of traffic flow. The existing site entrance along West Mountain Street would also be maintained but would be modified to meet the new finished grade of the proposed site and may also include the construction of a new traffic signal in order to provide safe ingress and egress to vehicles accessing the site at this location. An access road would run from the West Mountain Street entrance up to the GWTP site. The expanded parking lot directly to the north would also be accessible from this access road. Delivery and service trucks would enter the site from the south via Mountain Street, following the service road along the GWTP at the northwest edge of the site, and would exit the site to the north onto Sunset Avenue. The service road would be sized to accommodate large service and delivery vehicles entering and exiting the site and would maintain space for offloading. The GWTP facility would be accessible via key-actuated motorized gates.

The reservoirs would be sized and located such that a 10-foot vehicle lane would be maintained around the entirety of all site facilities to allow for regular inspections and maintenance activities. The 10-foot lane width is based on coordination with PWP based on the maintenance vehicles PWP plans on using to maintain on-site facilities.

Site Grading, Drainage and Paving

To handle the load of the delivery and service trucks, the service roads would consist of a 4-inch thick layer of asphalt over 6 inches of aggregate base (to be confirmed by the site geotechnical investigation). The rest of the site would be paved to match the existing asphalt and base aggregate thicknesses in the existing site parking lot and access roads. Any asphalt repairs would be done in accordance with PWP's most current Water Construction Standards.

With exception to the concrete equipment pads, the site would be graded to direct runoff from the high side of the site along Sunset Avenue to the southeast towards West Mountain Street. The design of the grading plan is aimed to reduce as much required exported fill as possible and to provide adequate driveway grades for delivery and maintenance vehicle access. The current grading plan shown results in an approximate net export of 3,700 cubic yards (CY). The grading plan would be refined during Final Design and would aim to balance the site. A site survey would be conducted as part of the final design to confirm final elevations of the proposed site.

Site Stormwater Treatment

The site design would incorporate Low Impact Development (LID) features in accordance with the Los Angeles County stormwater requirements, including the 2014 Low Impact Development (LID) Standards Manual, the MS4 Permit, and the Hydraulic Design Manual. The sizing of treatment would be based on the total area impacted by the Project (approximately 6.3 acres) and the 85th percentile 24-hour rainfall depth of 1.1 inches. Stormwater is planned to be treated by bioretention because infiltration would likely be infeasible due to proximity to slopes, resulting in a required treatment volume 1.5 x Stormwater Design Volume that equates to approximately 0.9 acre-feet (AF). Treatment type would be confirmed during final design. The bioretention facility would include an overflow and underdrain system, which would either discharge to the drain vault in the southwest corner of the site, or, if necessary, to the existing storm drain system(s) within West Mountain Street. Stormwater facilities would be kept as far away from existing wells as possible. When possible, self-treating areas would be used to decrease the required quantity of LID features, which would be coordinated with the landscape architect during final design. Grading would be adjusted to accommodate Los Angeles County LID requirements during final design.

The Project is exempt from Hydromodification Controls because it would discharge to the existing storm drain system, which in turn discharges to Arroyo Seco and the Los Angeles River, both of which are armored channels not susceptible to the impacts of hydromodification.

On-Site Parking

The Sunset Reservoir site currently provides parking for City employees who work at the adjacent maintenance building. The Project aims to provide, at a minimum, the same number of parking spaces post construction as preconstruction. While several existing parking spaces at the south end of the site would be removed to accommodate the new reservoir configuration, space towards the north end of the site would be used to provide additional parking spaces. It should be noted that during construction activities PWP employees that currently park on-site would be required to park off-site at a nearby parking lot. Employees would park at the off-site location and be shuttled to and from the PWP offices immediately west of the reservoir complex facility.

3.2 PROJECT CONSTRUCTION

Based on the age of the structures on the Project site and the historical usage of environmentally sensitive materials (i.e., Asbestos Containing Materials [ACM] and Lead-Based Paint [LBP]) in construction practices and supplied materials of the early 1900s, PWP would perform a pre-demolition survey to determine the potential extent of impacts where potentially hazardous materials may be present. The pre-demolition survey would consist of a review of

available reservoir construction information, and a visual inspection of the water reservoirs and any visual connecting appurtenances.

The objective of the pre-demolition survey would be to observe, locate, and evaluate the condition of suspected ACM, LBP, wood construction materials formerly treated with Creosote, and any other identifiable materials. The survey would provide information that could be used to potentially implement a program of removal prior to initiating demolition activities, should specific conditions apply. The survey would also provide the demolition contractor with information so that measures, procedures, and unit costs may be agreed upon with PWP for the removal of environmentally sensitive materials as part of the demolition contract should materials be encountered during demolition work.

Should the survey result in findings of environmentally sensitive materials, based on the recommendations provided by the pre-demolition survey professional, PWP may elect to perform a Pre-Demolition Environmental Assessment Removal (PDER) activity of selected materials to mitigate specific health and safety hazards at the site prior to construction of the new reservoir facility. Following completion of the pre-demolition survey work activities, the survey professional would prepare a Summary Report to document the work activities performed and any variations from their work plan.

The estimated construction duration for the Project would be 24 months. Based on the proposed facility layout, Reservoir 1 would be constructed first. Reservoir 1 would be the southernmost facility on the site, which would allow the construction contractor to have access to the remaining contiguous site to construct the remaining facilities. Reservoir 1 would be constructed in 12 months, and Reservoir 2 would follow approximately 6 months behind Reservoir 1's construction schedule. The GWTP facilities would be constructed simultaneously with the reservoirs.

3.3 PROJECT OPERATION

The proposed reservoirs would be hydraulically connected to one another on the inlet side via the valve vault between the reservoirs, as well as on the outlet side via their connection to the 36-inch main that runs along Sunset Avenue. Since the reservoirs would be directly connected to the Sunset Pressure Zone (PZ), water levels in the reservoirs would "float" with the PZ, meaning that it would operate at the same hydraulic grade line (HGL) at which the Sunset PZ operates.

Under normal operations (at full design capacity), raw water from the wells would flow to the pre-filters followed by the GWTP for removal of perchlorate and VOC followed by disinfection. After being treated and disinfected, the treated water would be conveyed to the reservoirs. Variable flow from P-1 (MWD imported water turnout) would enter through the inlet piping and combine with the treated product water as it moves up through the valve vault to Reservoir 1 and Reservoir 2.

In 2021, PWP began drilling of the Garfield Replacement Well in Villa Park, located approximately, 0.80-mile southeast of the project site. The new well is to replace a 100-year-old well that has exceeded its useful life and was experiencing mechanical issues. The replacement well will be completed in 2023. The existing discharge pipe from the Garfield Well will be utilized for the replacement well. The existing discharge pipe terminates near P-1. The Project would extend the existing discharge pipe to the influent of the GWTP and combine with the discharge of Bangham Well. If the Garfield Replacement Well does not require treatment, it would bypass

the GWTP and combine with treated water upstream of the disinfection system. Under this configuration Phase 1 for the project would treat approximately 1,500 gpm. Future phases may increase treatment capacity up to 4,500 as new wells come online.

If Reservoir 1 or Reservoir 2 need to be isolated for maintenance or repairs, each reservoir would be able to be individually separated from the system by closing the corresponding isolation valve in the inlet valve vault and closing the outlet isolation valve on the reservoir. The inlet/outlet piping would be sized so that each reservoir could operate independently at design flow rates without incurring excessive headloss.

Power would be provided by PWP and any design considerations necessary for compliance with PWP service requirements will be considered during the final design phase. Emergency standby generator power would be provided at the site via an automatic transfer switch (ATS). The ATS would receive main (primary) power from a 480-volt, 3-phase utility service disconnect within the switchboard. The backup (secondary) power source for the ATS would be a 1000kW, 480-volt, 3 phase natural gas generator to provide 24 hours runtime. The generator and its accessories would be housed in a sound attenuated enclosure and comply with air quality emission standards.

Maintenance associated with the project would not be substantially different than existing operations. Staff would access the site daily for to ensure there are no issues that need to be immediately addressed. About once each week a water quality sample would be taken. Once each month, the disinfection facility would receive a chemical delivery and once every three months the filter media in the GWTP would be changed by a service provider.

3.4 AGENCY APPROVALS AND PERMITS

This Initial Study is intended to serve as a preliminary analysis of the Sunset Complex Project prior to the preparation of an EIR, which will serve as the primary environmental document, pursuant to CEQA including discretionary approvals requested or required to implement the Project.

Table 3-1, *Agency Approvals and Requirements*, lists all the agencies that are known or expected to have permit or approval authority over the Project. Moreover, the EIR will identify all federal, State, local government, and quasi-government approvals that may be needed to construct, implement, or operate the Project, whether or not they are specifically identified in Table 3-1 or elsewhere in this IS.

TABLE 3-1
AGENCY APPROVALS AND REQUIREMENTS

Agency	Approval/Permit Required	Purpose
City of Pasadena	Conditional Use Permit	Project approval.
City of Pasadena	Design Review	Project approval.
City of Pasadena	Occupancy Permit	Permit installation of backwash connection pipelines and water main in Sunset Avenue.
State Water Resources Control Board, Division of Drinking Water (DDW)	Permit Amendment Application	Allow for reservoir and treatment system for public drinking water systems.
Pasadena Department of Public Works	Sanitary Sewer Discharge Permit	Permit discharge of backwash to the sanitary sewer.
Regional Water Quality Control Board	Order No R8-2013-0031	Permit wellhead treatment
Regional Water Quality Control Board	NPDES Permit No, CAS004001	Approve discharge of overflow, underdrain, and collected stormwater flow to storm sewer system.
South Coast Air Quality Management District	Permit to Construct/Operate	Allow construction and operation of the emergency generator

The Project is proposed by and would be implemented under the direction of the City of Pasadena. Although the Project is being initiated by the City, the Project would be subject to review and approval by City decision makers which would consider the need for and benefits of the Project in addition to the potential environmental effects of its construction and operation.

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SECTION 4.0 ENVIRONMENTAL ASSESSMENT

This section includes the completed CEQA Environmental Checklist Form, as provided in Appendix G of the State CEQA Guidelines, as well as substantiation and clarification for each checklist response. The checklist form is used to assist in evaluating the potential environmental impacts of the Sunset Complex Project and identifies whether the Project is expected to have potentially significant adverse impacts that would be analyzed in the EIR.

1. **Project Title:** Sunset Complex Project

2. **Lead Agency Name and Address:** City of Pasadena
   Water and Power Department
   150 South Los Robles Avenue, Suite 200
   Pasadena California 91101-4613

3. **Contact Person and Phone Number:** Michael Lin
   (626) 744-4468

4. **Project Location:** At the intersection of Sunset Avenue and West Mountain Street in the City of Pasadena, Los Angeles County, California 91103

5. **Project Sponsor's Name and Address:** City of Pasadena
   Pasadena Water and Power
   150 South Los Robles Avenue, Suite 200
   Pasadena, California 91101

6. **General Plan Designation:** Institutional

7. **Zoning:** Public and Semi-Public (PS)

8. **Description of Project:** The proposed Project includes replacement of two existing reservoirs (SR1 and SR2) with two new prestressed concrete reservoirs and associated appurtenances at the site. The Project would also construct a new on-site GWTP. Proposed Reservoir 1 would have a capacity of 4.9 MG, Reservoir 2 of 6.1 MG, for a total water storage capacity of 11.0 MG. The GWTP would allow for a total treatment capacity of 3,000 gpm and would treat for perchlorate and TCP. The GWTP would be designed to allow for future expansion to increase the total treatment capacity to 4,500 gpm and to add 800 gpm of sidestream for biological treatment for nitrate removal.

9. **Surrounding land uses and setting:** The Project site is surrounded by City buildings, residential uses, and a park.

10. **Other public agencies whose approval is required:** State Water Resources Control Board, Division of Drinking Water (DDW), Regional Water Quality Control Board, South Coast Air Quality Management District.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?** Yes, one tribe, the Gabrieleno Band of Mission Indians – Kizh Nation, has requested government-to-government consultation and consultation has begun. See Section 4.18, Tribal Cultural Resources, for more information. The EIR will discuss the outcome of the consultation process.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact", as indicated on the following pages.

- ☒ Aesthetics
- ☒ Air Quality
- ☒ Cultural Resources
- ☐ Geology and Soils
- ☐ Hazards and Hazardous Materials
- ☐ Land Use and Planning
- ☒ Noise
- ☐ Public Services
- ☐ Transportation
- ☐ Utilities and Service Systems
- ☒ Mandatory Findings of Significance
- ☐ Agriculture and Forest Resources
- ☐ Biological Resources
- ☒ Energy
- ☒ Greenhouse Gas Emissions
- ☐ Hydrology and Water Quality
- ☐ Mineral Resources
- ☐ Population and Housing
- ☐ Recreation
- ☒ Tribal Cultural Resources
- ☐ Wildfire

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature of Lead Agency Representative

4/5/22
Date

Michael Lin
Printed name

City of Pasadena
Agency

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact' is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 21, "Earlier Analysis," may be cross-referenced).

5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D). Earlier analyses are discussed in Section 21 at the end of the checklist.

    a) Earlier Analysis Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier documents and the extent to which address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

    a) The significance criteria or threshold, if any, used to evaluate each question; and

    b) The mitigation measure identified, if any, to reduce the impact to less than significant

4.1 AESTHETICS	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☐	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.1 EXISTING CONDITIONS

Visual Character

The Project site is currently developed with the existing Sunset Reservoir facility and does not include any designated scenic resources; however, as discussed further in Section 4.5, Cultural Resources, below, the existing reservoir complex is considered eligible for listing as a historic district and local historic landmark. The Project site is located in an urbanized area and is surrounded by City buildings, a neighborhood park, and residential units. Distant views of the San Gabriel Mountains are partially available from the site.

Scenic Resources

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program, which includes several freeways and highways as “Officially Designated Scenic Highways” or “Eligible State Scenic Highways”. The nearest Officially Designated Scenic Highway to the Project site is State Route 2 (SR-2), which runs through the San Gabriel Mountains from I-210 in La Cañada Flintridge to the San Bernardino County line (Caltrans 2021a). SR-2 is located approximately 4.8 miles northwest of the Project site at its nearest point and does not have views of the Project site due to distance and intervening buildings, slopes, and vegetation.

The California Scenic Highway Program also designates I-210 as an Eligible Scenic Highway from I-5 to SR-134 (Caltrans 2021a). I-210 is located approximately 700 feet (0.13-mile) west of the Project site at its nearest point but does not have direct views of the Project site due to intervening buildings, slopes, and vegetation.

4.1.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact.

A scenic vista is defined as a viewpoint that provides panoramic or focused views of a highly valued landscape or scenic resource for the benefit of the general public. The Environmental Impact Report (EIR) for the Pasadena General Plan provides the following description of the existing scenic features and visual resources in the City: "The City of Pasadena affords a variety of views of scenic landscapes and built environments. The San Gabriel Mountains, near the north City boundary, dominate the skyline from most of the City. The San Rafael Hills are along the western City boundary, and the Verdugo Mountains are further to the west. In addition, the Arroyo Seco corridor and Eaton Canyon traverse the western and eastern portions of the City, respectively. The City also offers scenic views of distinct architecture in the built environment, such as the Old Pasadena Historic District, Pasadena City Hall, Castle Green, St. Andrew Catholic Church bell tower, and Bungalow Heaven" (City of Pasadena 2015b).

The Project site is in an urbanized area and is not itself a scenic vista or scenic resource. Distant views of the San Gabriel Mountains are available from certain positions at the Project site. The replacement of two existing reservoirs and the construction of a GWTP, which would be the primary visible Project components, would lead to a minor change in visual character of the Project site. However, the Project would not block the existing partial views of the San Gabriel Mountains or any other scenic vista in the City. Therefore, given that the Project is not a scenic resource nor is it located within a scenic vista, there would be no impact, and no further analysis in the EIR is required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Potentially Significant Impact.

The Project site is not located within the viewsheds of SR-2 (an Officially Designated Scenic Highway) or I-210 (an Eligible Scenic Highway), and the proposed improvements at the Project site would not be visible from SR-2 or I-210 (Caltrans 2021a). Thus, no impacts to scenic resources along these scenic highways would occur.

There are no official City-designated Scenic Corridors. The Project site itself is an eligible historic district and local landmark, so changes to the site may affect unofficial scenic corridors or the City's traditional urban design form and historic character. Potential impacts to this historic resource are discussed further in Section 4.5.2. Impacts are potentially significant and will be further analyzed in the EIR.

c) Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact.

During construction, the visual character of the Project site would be adversely affected by construction activities and the presence of construction equipment and materials. However, this would be a short-term and temporary impact, which would be restored upon completion of construction. This would include restoring any landscaping impacted by construction activities and implementing new landscaping at the site. Therefore, construction activities would be temporary and would not result in permanent adverse effects to the visual character of the site.

During operation, the site would be similar to existing conditions. The Project involves the replacement of two reservoirs and construction of GTWP. The proposed land uses are similar to existing uses and are consistent with the existing zoning of Public and Semi Public (PS). Therefore, Project implementation would not result in significant adverse impacts to the site and no mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact.

The proposed Project is the replacement of two existing reservoirs and construction of an on-site GWTP. The Project would not introduce new land uses and the site would be similar to existing conditions. While the specific placement and type of lighting under the Project may vary from existing conditions, all lighting would be shielded and directed onto the Project site such that no additional sources of off-site light trespass would occur. As such, the Project would not result in additional lighting or substantial lighting beyond the present levels at the site that would spill over onto surrounding uses. Additionally, the Project would not include any surfaces that would create glare impacting the surrounding uses or motorists on the adjacent roadways. Therefore, the potential impacts would be less than significant, and no mitigation is required.

4.1.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.2 AGRICULTURE AND FOREST RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 EXISTING CONDITIONS

The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the *California Government Code.* According to the California Department of Conservation's California Important Farmland Finder, the Project site and surrounding areas are designated as Urban and Built-Up Land (California Department of Conservation 2018). There are no designated farmlands in or near the Project site. Also, there are no existing or ongoing agricultural activities in or near the Project site.

The Project site is zoned as Public and Semi-Public (PS) in the City's Zoning Map and designated as Commercial – Institutional in the City's Land Use Plan diagram (City of Pasadena 2018a, 2015a).

There are no forest lands, timberlands, or any Timberland Production Zones in the City.

4.2.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact.

As discussed above, there are no designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Project site or surrounding area. As such the Project would not result in conversion of these resources to non-agricultural use. Additionally, the Project site is not zoned for agricultural use, and there are no Williamson Act contracts in the City. Therefore, the Project would not conflict with existing zoning for agricultural use. Also, there are no agricultural activities on the Project site, and no farmland conversion or impacts to agricultural uses would occur because of the Project. Therefore, no impacts on agricultural resources would occur, and no further analysis in the EIR is required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, Section 12220[g]), timberland (as defined by Public Resources Code, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104[g])?

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact.

The Project site has a land use designation of Institutional, which is characterized by facilities owned and operated by the City or other public and/or private institutions such as corporate yards, schools, libraries, and hospitals (City of Pasadena 2016). There are no timberland or timberland production zones resources that have been identified in the City of Pasadena Comprehensive General Plan. Thus, the Project would not result in conflict with existing zoning for forest land and timberland and would not cause rezoning of such resources.

No loss of forest resources or conversion of forest land to non-forest use would occur with the Project. Long-term operation and maintenance activities at the Project site would not adversely affect forest resources. Therefore, no impacts on forest resources would occur, and no further analysis in the EIR is required.

4.2.3 MITIGATION MEASURES

There would be no impacts on agriculture and forest resources; therefore, no mitigation measures are required.

4.3 AIR QUALITY	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 EXISTING CONDITIONS

The Project site is located in the Los Angeles County portion of the South Coast Air Basin (SCAB), and for air quality regulation and permitting, the site is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Both the State of California (State) and the U.S. Environmental Protection Agency (USEPA) have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as “criteria pollutants”. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety.

The effects from air pollution can be significant, both in the short-term during smog alerts, but also from long-term exposure to pollutants. While the majority of the populace can overcome short-term air quality health concerns, selected segments of the population are more vulnerable to its effects. Specifically, young children, the elderly, and persons with existing health problems are most susceptible to respiratory complications.

The nearest sensitive receptors to the Project site include numerous residences located on all sides of the site, in addition to Brenner Park located to the south.

4.3.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact.

The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary. It is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources and has prepared an Air Quality Management Plan (AQMP) that establishes a program of rules and regulations directed at attaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, Southern California Association of Governments [SCAG], and USEPA). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methodologies for various source categories; and SCAG's latest growth forecasts.

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not (1) exceed the SCAQMD CEQA air quality significance thresholds or (2) conflict with or exceed the assumptions in the AQMP. As discussed in Threshold 4.3(b) below, pollutant emissions from the proposed Project will be compared to the SCAQMD thresholds in the EIR and may result in a significant impact.

The Project is consistent with the Zoning and General Plan Land Use designations for the site and is therefore consistent with the growth expectations for the region (City of Pasadena 2015b). Further, the proposed Project would not directly result in population growth or development or new land uses that have not been anticipated in the AQMP. More detailed analysis is needed to determine if project emissions would conflict with the AQMP. Therefore, impacts are potentially significant and further analysis in the EIR is required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Potentially Significant Impact.

The SCAQMD has adopted significance thresholds to assess the regional impact of air pollutant emissions in the SCAB. A project with emissions rates above these thresholds is considered to have a significant impact on air quality. The Project would generate criteria pollutants in the short-term during construction and the long-term during operation, which may have a significant impact. An analysis of the Project's construction and operation emissions in relation to the SCAQMD thresholds will be provided in the EIR based on air quality models prepared for the Project.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact.

The closest sensitive receptors are the single-family residences located adjacent to the northern and eastern boundaries of the Project site. Other residences surround all sides of the Project site and Brenner Park is located to the south. Construction and operation of the proposed

project have the potential to expose sensitive receptors to criteria pollutant and toxic air contaminant (TAC) emissions. Impacts are potentially significant and further analysis of this issue will be included in the EIR.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact.

According to the SCAQMD's *CEQA Air Quality Handbook,* land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project does not propose any of these land uses and would not otherwise produce objectionable long-term operational odors. The two reservoirs would be replacing similar existing structures, and therefore would not result in an increase in other emissions such as those leading to odors over existing conditions. The proposed GWTP would treat groundwater, not wastewater, and therefore would not result in the generation of substantial odors during operation. It should be noted that the proposed backup power generator would be tested monthly to ensure proper operation when needed; the generator, aside from testing activities, would only operate during a power outage in order to maintain water service in the area, including fire hydrant service. The temporary use of the backup generator would not result in substantial odor generation given that it would be fueled by natural gas, which creates substantially less exhaust odors compared to diesel fuel, and would be designed and permitted in compliance with SCAQMD rules and requirements. In addition, the existing disinfection facilities and processes would be modified under the proposed project but would not generate additional odors associated with the disinfection process compared to existing conditions. As such, odors associated with temporary backup generator operation and continued water disinfection activities would be less than significant.

Short-term construction equipment and activities would generate odors, such as diesel exhaust emissions from construction activities. There may be situations where construction activity odors would have an olfactory presence, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. The Project use is also regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402. Rule 402 prohibits discharge from any source of air contaminants or other material, which would cause injury, detriment, nuisance, or annoyance to people or the public. Therefore, the impacts would be short-term; would not be objectionable to a substantial number of people; and would be less than significant. All Project-related odors would be construction related and short term in nature; no long-term operational odors would result. As such, the proposed Project would have less than significant impact in regard to other emissions, and no further analysis in the EIR is required.

4.3.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.4 BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 EXISTING CONDITIONS

The Project site is currently developed with the existing Sunset Reservoir facility. Vegetation on the existing Project site is limited to minimal amounts of ornamental vegetation, as shown on Exhibit 2-3.

4.4.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact.

The Project site is located within an urban area and surrounded by recreational and residential uses, in addition to City buildings. As a result of urbanization of the land, the entire Project site

and immediate surrounding areas are developed and no longer support undeveloped land. The vegetation on the Project site is limited to minimal amounts of ornamental plant species.

No fish, amphibian, or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish or amphibians are at the Project site. Therefore, no fish are expected to occur and are presumed absent from the Project site. Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status mammal or reptilian species are expected to occur within the Project site. The Project site provides minimal foraging habitat for bird species that have adapted to human disturbance.

However, the existing landscaping includes trees that have the potential to have nesting birds or raptors protected under the Migratory Bird Treaty Act (MBTA). If the Project requires the removal or trimming of trees during the general bird nesting season (January 15 to September 15), the Project may impact nesting birds. If the activities cannot avoid the general bird breeding season, to comply with the MBTA and CFG Code, a qualified biologist would be retained to conduct a pre-activity nesting bird survey within seven days prior to the activities to confirm the presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities may proceed with the reassurance that no violation to the MBTA and CFG Code would occur. If an active bird nest is found by the qualified biologist, to ensure compliance with the MBTA and CFG Code, vegetation removal and/or trimming activities at the nest location would not occur until the qualified biologist has determined that the nest is no longer active with avoidance buffers established at the discretion of the qualified biologist depending on the bird species and Project activities in the vicinity of the active nest. Implementation with the required compliance with the MBTA and CFG Code, the Project's potential impacts on candidate, sensitive, or special status species, would be less than significant. No further analysis in the EIR is required.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact.

The Project site is currently developed, and on-site vegetation is limited to ornamental landscaping at scattered locations. The site does not contain any riparian habitat, protected wetlands, or other sensitive natural community. There would be no impact to riparian habitats or sensitive natural vegetation communities, and no further analysis in the EIR is required. No discernible jurisdictional drainage features occur within the Project site disturbance area. Therefore, no impacts on jurisdictional drainages would occur, and no further analysis in the EIR is required.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact.

Wildlife corridors connect isolated habitat and allow movement or dispersal of plant materials and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of the wildlife's daily routine and life history. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species; it may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance. The Project site likely does not currently function as a wildlife corridor due to its developed nature and location within a region developed with urbanized uses.

There is the potential for birds and raptors to use the trees on the site, but compliance with regulations would reduce any impacts related to nesting birds and raptors to a less than significant level. To prevent direct impacts to nesting birds protected under the federal MBTA and CFG Code, project activities requiring the removal and/or trimming of vegetation suitable for nesting birds would occur outside of the general bird breeding season (January 15 to September 15) to the extent feasible. If the activities cannot avoid the general bird breeding season, to comply with the MBTA and CFG Code, a qualified biologist would be retained to conduct a pre-activity nesting bird survey within seven days prior to the activities to confirm the presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities may proceed with the reassurance that no violation to the MBTA and CFG Code would occur. If an active bird nest is found by the qualified biologist, to ensure compliance with the MBTA and CFG Code vegetation removal and/or trimming activities at the nest location would not be allowed to occur until the qualified biologist has determined that the nest is no longer active, with avoidance buffers should established at the discretion of the qualified biologist depending on the bird species and Project activities required in the vicinity of the active nest. Compliance with these processes would reduce potential impacts to wildlife movement and nursery sites to less than significant levels. No further analysis in the EIR is required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact.

The City of Pasadena tree protection ordinance states that all public trees are afforded protection and it is a violation to prune, remove, injure, or plant a public tree without a City permit. Disturbance in the root zone of a protected tree may be considered a potential injury. A tree protection assessment was prepared for the Project and is attached to this Initial Study as Appendix A. The assessment inventoried the 32 trees within the project limits and assessed their condition. It recommended that six trees be removed due to structural instability issues. Twelve trees would have root conflict with the proposed work while the remaining 14 trees would be sufficiently protected through implementation of the recommendations in the assessment. Protection recommendations include monitoring by an arborist to oversee fencing, tree pruning, and root pruning activities. The City would have final discretion to adjust the assessment's recommendations. With implementation of the appropriate protection measures included in the tree protection assessment, as agreed to by the City, the Project would not conflict with the City's ordinance or significantly impact public trees. Impacts would be less than significant.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact.

There is no adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan (NCCP); or other approved State, regional, or local habitat conservation plans that would apply to the Project site. No impacts would occur, and no further analysis in the EIR is required.

4.4.3 MITIGATION MEASURES

There would be no significant impacts pertaining to biological resources; therefore, no mitigation measures would be required

4.5 CULTURAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Information in this section is based on information obtained from the Cultural Resources Assessment Report (HELIX 2021b; Appendix B). The Cultural Resources Assessment Report included a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and a pedestrian survey for the Project area.

4.5.1 EXISTING CONDITIONS

Archaeological Resources

HELIX staff requested a records search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) on April 5, 2021 covering a 0.5-mile radius around the Project area. The results of the records search received from SCCIC on May 10, 2021, identified six previous cultural resource studies within the half-mile record search limits, none of which occurred within the Project site. Five of the studies were archaeological surveys or site visits, one of which included a historic resources survey; the remaining report title does not indicate the type of study but appears to have been a site visit/survey as well. The SCCIC has a record of 84 previously recorded cultural resources within a 0.5-mile radius of the Project, but none have been recorded within the Project area. All the resources recorded within the 0.5-mile search radius consist of historic built environment resources, including historic buildings and structures, districts and their contributing elements, and a park. This includes the Bungalow Courts of Pasadena, a historic district, and 82 other historic buildings with addresses on the OHP Historic Property list.

HELIX contacted the Native American Heritage Commission (NAHC) on April 6, 2021, for a Sacred Lands File search and a list of Native American contacts for the Project area. The NAHC indicated in a response dated April 21, 2021, that no known sacred lands or Native American cultural resources are within the Project area, but that the absence of specific site information in the Sacred Lands File does not indicate the absence of cultural resources in the Project area. Letters were sent on May 17, 2021, to the eight Native American representatives and interested parties identified by the NAHC. The only response received to date is from the Gabrieleno Band of Mission Indians - Kizh Nation, requesting contact information for the lead agency. PWP is undertaking AB 52 notifications to those Tribes who have requested notification and will initiate consultation if requested by those Tribes. Information resulting from these consultations will be used to help assess Project impacts and will be incorporated into the EIR, as appropriate.

A pedestrian survey of the Project site was conducted on June 3, 2021, by HELIX Archaeologist Kassie Sugimoto. No archaeological sites have been previously documented within the Project area, and the survey did not identify any new cultural resources within the Project area.

Historical Resources

As noted above, HELIX staff requested a record search of CHRIS at the SCCIC on April 5, 2021. No previously documented historic resources within the Area of Potential Effect (APE) were on file with the SCCIC. A previous Historic Resource Assessment report was prepared for the Sunset Reservoir Complex by Jenna Snow in 2017 and concluded that the Sunset Reservoir Complex appears eligible for listing in the California Register of Historical Resources (CRHR) and a City of Pasadena local landmark.

4.5.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Potentially Significant Impact.

The National Register of Historic Places (NRHP) is a federal guide to significant properties at the national, state and local levels based on specific criteria. At the state level, the CRHR includes those sites recognized by the NRHP as well as additional sites under its own criteria. The City of Pasadena Municipal Code Section 17.62.010 outlines criteria for City-designated historic resources and defines all eligible resources as meeting the CEQA definition for historical resources, as defined in Section 15064.5. The Project site is eligible as a historic district under NRHP Criterion A and CRHR Criterion 1 and as a City of Pasadena Landmark under Criterion A. As contributors to the Sunset Reservoir Complex Historic District, removal of the existing SR1 and SR2 may create a substantial adverse change to a historical resource. Therefore, this impact is potentially significant and will be further analyzed in the EIR.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant Impact.

There are no known archaeological cultural resources located within the Project site. As discussed above, a records search of the CHRIS at the SCCIC identified 6 previous cultural resource studies and 84 previously identified cultural resources within 0.5 mile of the Project site; however, none occur within the boundaries of the Project site. Additionally, no archaeological cultural resources were identified during the pedestrian survey of the Project site completed on June 3, 2021 by HELIX Archaeologist Kassie Sugimoto.

In a letter dated April 21, 2021, the NAHC indicated that no known sacred lands or Native American cultural resources are within the Project area, but that the absence of specific site information in the Sacred Lands File does not indicate the absence of cultural resources in the Project area. Letters were sent on May 17, 2021, to the eight Native American representatives and interested parties identified by the NAHC. The only response received to date is from the Gabrieleno Band of Mission Indians - Kizh Nation, requesting contact information for the lead agency. PWP is undertaking AB 52 notifications to those Tribes who have requested notification and will initiate consultation if requested by those Tribes. Currently, Native American outreach has not resulted in identification of cultural resources within the Project site.

No archaeological sites have been previously documented within the Project area, and the Cultural Resources Assessment did not identify any new cultural resources within the Project area. Due to the results of the Cultural Resources Assessment, in addition to the extensive disturbances to the Project site, the potential for subsurface cultural resources is considered to be low. In accordance with the City's Mitigation Monitoring and Reporting Program for the General Plan EIR (Mitigation Measure 4-1), in the event that cultural material is encountered during construction, ground-disturbing activities in the immediate area of the find would be halted until a qualified archaeologist is notified and assesses the resources. If significant cultural material is encountered, the qualified archaeologist would coordinate with the Consulting Tribe(s) and PWP staff to develop and implement appropriate construction techniques to avoid and/or protect the resource. Construction monitoring is not recommended. Impacts to archaeological cultural resources would be less than significant, and no further analysis in the EIR is required.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact.

There are no known human remains within the Project site. In the unlikely event that human remains are discovered, the County Coroner would be contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. All requirements of Health & Safety Code §7050.5 and PRC §5097.98 would be followed. Compliance with such regulations would ensure that impacts to human remains would be less than significant, and no further analysis in the EIR is required.

4.5.3 MITIGATION MEASURES

There would be no significant impacts related to archaeological resources; therefore, no mitigation measures are required for these impacts. Mitigation measures will be developed and presented in the EIR, if applicable, for impacts to historical resources that are determined to be potentially significant.

4.6 ENERGY	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐	☐

4.6.1 EXISTING CONDITIONS

The Project site would be developed within and adjacent to the existing Sunset Reservoir facility, which requires routine maintenance trips. The replacement reservoirs, once operational, would function similarly to the existing reservoirs.

4.6.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Potentially Significant Impact.

The proposed Project would involve the consumption of energy primarily related to transportation and ongoing reservoir operations. The addition of the GWTP to existing reservoir functions would increase the energy demands during operation of the Project from the current baseline. This increase in energy demand may result in a significant environmental impact. Further analysis of the energy necessary to construct and operate the proposed project will be included in the EIR.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Potentially Significant Impact.

The City's Energy Element of the 1983 General Plan was replaced by the City's Open Space and Conservation Element in 2012 (City of Pasadena 2012). The purpose of the Open Space and Conservation Element is to develop policies that promote the conservation of energy, air,

water, and natural resources to enhance the overall quality of life in Pasadena. In terms of energy, the City seeks to improve energy conservation, expand renewable energy production, and promote sustainability. As discussed in the "Existing Utility Conditions and Urban Planning" Section of this Element, the City will increase conservation, efficiency, and sustainability.

As discussed above the Project may result in an increase in energy usage with the implementation of the GWTP, which could conflict with a state or local plan for renewable energy or energy efficiency. The Project's conflict with such plans is a potentially significant impact and will be further evaluated in the EIR.

4.6.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.7 GEOLOGY AND SOILS	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Information in this section is derived from the Seismic Vulnerability Assessment (G&E Engineering Systems, Inc. 2006), Geotechnical Investigation (Diaz Yourman & Associates 2009), Sunset Reservoir No. 1 Seismic Evaluation (Carollo 2015), and Geotechnical Investigation (Ninyo & Moore 2021) prepared for the proposed Project site, all of which are included in Appendix C of this IS. The paleontological resources analysis is based on the findings contained in Appendix E of the City of Pasadena General Plan EIR (City of Pasadena 2015b).

4.7.1 EXISTING CONDITIONS

The Geotechnical Investigations prepared for the Project site found groundwater to be present at a depth of approximately 150 below ground surface (bgs), with limited perched water encountered at 35 feet bgs in one portion of the site (Diaz Yourman & Associates 2009). The upper 10 feet of soil consisted of moist, loose to medium dense, fine- to coarse-grained sand with little gravel. The deeper soils consisted of medium dense to very dense sands. Due to the geologic conditions at the site, the Geotechnical Investigation determined the potential for liquefaction to be very low to remote (Diaz Yourman & Associates 2009). The 2021 Geotechnical Evaluation indicates that liquefaction and liquefaction-related seismic hazards (e.g., dynamic settlement, ground subsidence, and/or lateral spreading) are not design considerations for the Project (Ninyo & Moore 2021).

According to the California Geological Survey (CGS), there are no active earthquake faults located on or near the Project site. The nearest earthquake fault is the Raymond Fault located within the Los Angeles Fault Zone, approximately three miles south of the Project site (CGS 2021). The Seismic Vulnerability Assessment provided the City with a seismic improvement program identifying seismic improvements for all components of PWP's water infrastructure, including several improvements for SR1 and SR2. Specifically, the analysis identified issues regarding the structural integrity of the reservoirs' roofing system (G&E Engineering Systems, Inc. 2006). The Seismic Evaluation prepared for SR1 also identified a risk associated with the failure of SR1 as a result of a seismic event (Carollo 2015).

According to Figure 6, Paleontological Sensitivity, in Appendix E of the Pasadena General Plan EIR, the Project site has no sensitivity for paleontological resources based on the geology of the site and the surrounding area (City of Pasadena 2015b).

4.7.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- **i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
- **ii) Strong seismic ground shaking?**

Less than Significant Impact.

According to the CGS, there are no active earthquake faults located on or near the Project site. The nearest earthquake fault is the Raymond Fault located within the Los Angeles Fault Zone, approximately three miles south of the Project site (CGS 2021). Consistent with its location in a seismically active region, the site may be subject to strong ground shaking resulting from a major earthquake on one or more faults in the area within the lifetime of the Project. Seismic ground shaking from major earthquakes in the region is not anticipated to be greater than at any other sites in Southern California. The potential for strong ground shaking is an existing seismic hazard that affects the site, and the Project would not exacerbate this condition. The Project includes the replacement of several existing facilities that currently do not meet seismic requirements, so implementation of the Project would lessen existing risks associated with seismic ground shaking. Also, the Project would not involve construction of habitable structures or structures whose height, mass, or materials would pose a hazard in the event of an earthquake. In addition, the Project would be designed in compliance with applicable building code regulations. Grading, excavation, and construction is required to comply with the City's Building Code (Title 14 of the Pasadena Municipal Code, which incorporates the California Building Code), as it relates to site preparation and construction; alteration; moving; demolition; repair; use and occupancy of buildings; structures and building service equipment within the City. Impacts related to Alquist-Priolo fault zones and seismic ground shaking would be less than significant, and no further analysis in the EIR is required.

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

Less than Significant Impact.

As discussed above, the 2009 Geotechnical Investigation prepared for the Project site encountered moist, loose to medium dense, fine- to coarse-grained sand with little gravel in the upper 10 feet of soil, and medium dense to very dense sands in deeper soils. The investigation also found groundwater to be present at a depth of 150 feet bgs. Due to the geologic conditions at the site, the Geotechnical Investigation determined the potential for liquefaction to be very low to remote (Diaz Yourman & Associates 2009). The 2021 Geotechnical Evaluation supports this finding, noting that liquefaction and associated seismic hazards do not present notable risks at the Project site (Ninyo & Moore 2021).

According to the Deep-Seated Landslide Susceptibility Map prepared by CGS, the majority of the Project site is considered to have marginal susceptibility for landslide, with only a small portion of the site labeled as having a low to moderate susceptibility (CGS 2015). Additionally, the Project does not include any habitable structures or structures whose height, mass, or materials would pose a hazard in the event of a landslide. The Project would be constructed in compliance with applicable building code regulations (Title 14 of the Pasadena Municipal Code, which incorporates the California Building Code, as described above) which would ensure that the structural integrity of the proposed improvements can withstand seismic hazards. Impacts related to seismic hazards such as liquefaction and landslides would be less than significant. No further analysis is required in the EIR.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact.

Construction of the Project would involve grading and would require cut and fill soil. Soils exposed by construction activities could be subject to erosion if exposed to heavy rain, winds, or

other storm events. However, the Project would implement erosion control and sediment control Best Management Practices (BMPs) to minimize the occurrence of soil erosion or loss of topsoil. Additionally, a large portion of the Project area would be paved. Therefore, impacts related to soil erosion or the loss of topsoil would be less than significant, and no further analysis in the EIR is required.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact.

Liquefaction and landslides are addressed under Thresholds 4.7(a)(iii) and 4.7 (a)(iv) above, and there would be a less than significant impact associated with these conditions. The Project involves the replacement of two existing reservoirs, construction of a new on-site GWTP, and mainline work on Sunset Avenue and the Sunset Avenue/Mountain Street intersection. The Project would not substantially increase the potential for lateral spreading, subsidence, or collapse at the site. Additionally, no significant regional subsidence has occurred in the City. Further, the engineering design of the proposed Project has been created in a manner to minimize potential adverse effects to local hydrologic or geologic conditions.

Expansive soils are soils that swell when they absorb water and shrink as they dry, such as pure clay soils and claystone. The hazard associated with expansive soils is that they can overstress and cause damage to the foundation of buildings set on top of them. The Project would not construct a building; however, the Project would include several aboveground appurtenances. Based on data from the Geotechnical Investigation, subsurface materials at the proposed well drilling location are expected to consist of sand and gravel, which are not expansive soils (Diaz Yourman & Associates 2009). There would be a less than significant impact related to the presence of unstable geologic units and expansive soils, and no further analysis in the EIR is required.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact.

There are no proposed sanitary facilities associated with the Project, as all backwash operations and waste streams would utilize the existing sanitary sewer system. Therefore, no impacts related to the use of septic tanks or alternative wastewater disposal systems would occur with the Project, and no further evaluation in the EIR is required.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact.

As stated above, the Pasadena General Plan EIR determined that the majority of the City of Pasadena, including the Project site, has no sensitivity for paleontological resources. As such, the potential for Project implementation to result in direct or indirect adverse impacts to paleontological resources or unique geologic features would be negligible. No impact would occur and no further analysis in the EIR is required.

4.7.3 MITIGATION MEASURES

There would be no significant impacts pertaining to geology and soils; therefore, no mitigation measures are required.

4.8 GREENHOUSE GAS EMISSIONS	**Potentially Significant Impact**	**Less Than Significant With Mitigation**	**Less Than Significant Impact**	**No Impact**
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

4.8.1 EXISTING CONDITIONS

Climate change refers to any significant change in temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities are closely associated with global warming. GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

State of California Regulations and Legislation

Assembly Bill 32 – the California Global Warming Solutions Act of 2006 (AB 32) recognizes that California is the source of substantial amounts of GHG emissions. The statute states that:

> Global warming poses a serious threat to the economic wellbeing, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural

environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

To avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow (CARB 2011). Executive Order B-30-15 establishes an interim GHG reduction goal of 40 percent less than 1990 levels by the year 2030. Executive Order S-3-05 establishes a GHG reduction goal of 80 percent less than 1990 levels by the year 2050.

California Executive Order B-30-15 (April 29, 2015) sets an "interim" statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030 and directed State agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels.

On September 8, 2016, Governor Edmund G. "Jerry" Brown signed Senate Bill (SB) 32 to codify the GHG reduction goals of EO B-30-15, requiring the State to reduce GHG emissions by 40 percent below 1990 levels by 2030 (Health and Safety Code Section 38566). This goal is expected to keep the State on track to meeting the goal set by EO S-3-05 of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32's findings state that CARB will "achieve the state's more stringent greenhouse gas emission reductions in a manner that benefits the state's most disadvantaged communities and is transparent and accountable to the public and the Legislature."

Local

The City of Pasadena has prepared and adopted a Climate Action Plan (CAP) (City of Pasadena 2018b). The City's CAP includes the following components: a summary of existing state and local initiatives addressing climate change; community-wide GHG inventory and emissions forecasts; GHG reduction goals, measures, and actions; plans of implementation and monitoring of the plan; and adaptation strategies and climate change preparedness. This document builds upon the City's existing sustainability efforts, such as the Green City Action Plan and provides a framework to further reduce GHG emissions throughout the City. It is accepted as very unlikely that any individual development project such as the size and character of the proposed Project would have GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. The analysis of the Project's impacts is based on consistency with applicable GHG reduction plans, regulations, and programs, as discussed below.

4.8.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact.

The Project has the potential to generate GHG emissions during construction and operation that would have a significant impact on the environment. Further analysis will be prepared regarding the Project's greenhouse gas emissions and conclusions will be discussed in the EIR.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact.

As discussed above, there are multiple plans, policies, and regulations that aim to reduce greenhouse gas emissions and would apply to the Project. The Project has the potential to emit significant greenhouse gases per Threshold 4.8(a). In order to determine the Project's consistency with the applicable plans, policies, and regulations, further analysis of greenhouse gas emissions will be conducted. This impact is potentially significant and will be analyzed further in the EIR.

4.8.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.9 HAZARDS AND HAZARDOUS MATERIALS	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	☐	☐	☐	☒
d) 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, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

4.9.1 EXISTING CONDITIONS

The Project involves the demolition of existing structures that were originally constructed and/or modified in the late 1800s and early 1900s, when the use of ACM and LBP was prevalent. Therefore, there is potential for hazardous materials to be present within the existing structures.

The Department of Toxic Substances Control (DTSC) EnviroStor program maintains a database of sites of environmental cleanups and permitted facilities. The State of California Water Resources Control Board (SWRCB) GeoTracker program maintains a database for sites that may impact water quality in California. Neither the Project site nor properties within 1,000 feet are listed within either of these databases.

The Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) at the local, State, or federal designation (California Department of Forestry and Fire Protection [CAL FIRE] 2011).

4.9.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact.

Due to the age of the existing structures at the site, there is potential for ACM and LBP to be present within the existing structures. PWP would perform a pre-demolition survey to identify the potential for potentially hazardous materials to be presently accessible. If such environmentally sensitive materials are discovered, remediation would be required to minimize specific relevant health and safety hazards at the site prior to construction of the new reservoir facility. Demolition activities would adhere to all applicable federal, state, and local requirements related to hazardous materials. As such, demolition impacts would be less than significant.

Construction activities associated with the Project would require transportation and use of limited quantities of fuel, oil, sealants, and other hazardous materials related to construction. Operation of the proposed Project would continue the use of chloramines through the combination of sodium hypochlorite and liquid ammonium sulfate to treat water for secondary disinfection. The IX treatment process would utilize resin that would need to be sent for disposal at a landfill or through thermal destruction. Spent GAC media would also need to be sent to a landfill; however, a regeneration process would reduce the frequency of disposal by landfill. Hazardous materials would be used at the Project site during both construction and operation. However, the Project would handle such materials as required by existing rules and regulations and in accordance with manufacturers' specifications.

Due to the hazardous nature of sodium hypochlorite and liquid ammonium sulfate, secondary containment would be utilized by the Project. The secondary storage for each material would be concrete, sized to contain 110 percent of the storage tank volume. The containment would be equipped with a sump and level limit controls set to alarm at the detection of liquid in the sump.

This would prevent the discharge of incompatible liquids into the same area and allow for rapid response in the case of leaks. Adequate safety provisions would be implemented including stairs in and out of the containment areas, eye wash stations in each containment area, and eye wash stations at the chemical fill connections. Also, a separation wall would be installed between the sodium hypochlorite, aqueous ammonia, and electrical areas.

In addition, the Project would comply with all federal, state, and local requirements related to the transport, use, storage, and release of hazardous materials during construction and operation. These include, but are not limited to, regulations set forth by the U.S. Environmental Protection Agency; U.S. Department of Transportation (CFR Title 49, Hazardous Materials Transportation Act; and Title 40 261.31, 261.21, and 261.24); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (40 CFR parts 300, 311, 355, 370, and 373); Resource Conservation and Recovery Act (RCRA) (40 CFR parts 240-299); Toxic Substances Control Act (40 CFR parts 745, 761 and 763); California Department of Toxic Substances Control (DTSC); California Department of Transportation (Caltrans); California Division of Drinking Water; and the California Occupational Safety and Health Administration (CalOSHA). Therefore, impacts would be less than significant and further analysis in the EIR would not be required.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?

No Impact.

There are no schools located within one-quarter-mile of the Project site. The nearest school is Chandler School at 1005 Armada Drive, located approximately 0.4 mile southwest of the Project site. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of a school and impacts would not occur. No further analysis is required in the EIR.

d) Would the project 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, would it create a significant hazard to the public or the environment?

No Impact.

The DTSC EnviroStor database and SWRCB GeoTracker database were used to evaluate the Project site. Neither the Project site nor properties within 1,000 feet are listed within either of these databases. Therefore, the Project would not be on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, there would be no impact, and no further evaluation in the EIR is required.

e) 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact.

The Project site is not located within an airport land use plan, and there are no airports or airstrips within two miles of the Project site. The nearest airport is the San Gabriel Valley Airport,

which is located approximately 8.8 miles southeast of the Project site. The Project would not involve the construction of high-rise structures or involve activities that could pose a safety hazard to helicopter or aircraft operations or airport activities, nor would it conflict with an airport land use plan. There would be no impact related to airport safety or noise and no further analysis in the EIR is required.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact.

During Project construction there would be a temporary closure of the block of Sunset Avenue between Glorieta Street and West Mountain Street for the installation of a pipeline on Sunset Avenue. An alternate route between Glorieta Street and West Mountain Street would remain open along Morton Avenue. Other construction activities within the public right-of-way would accommodate one open lane. The City's Department of Transportation may require a transportation management plan to ensure adequate safety and circulation is maintained throughout construction activities. Coordination with the City's Department of Transportation and adherence to the City's Greenbook and other regulations would ensure construction activities do not interfere with emergency vehicle access. Further details regarding road closures and adherence to applicable policies during construction are contained under Threshold 4.17.2(a). Operation of the proposed Project would involve minimal and infrequent traffic in and out of the Project site and would not result in interference with emergency vehicle access. Impacts related emergency response or evacuation would be less than significant, and no further analysis in the EIR is required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact.

According to the Fire and Resource Assessment Program Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE map for the City of Pasadena, the Project site is not located within or near any areas designated as a VHFHSZ in either a Local Responsibility Area (LRA) or a State Responsibility Area (SRA; CAL FIRE 2011). Additionally, the Project involves the replacement of existing reservoirs and construction of a new on-site GWTP. The Project would not introduce new uses to the site that would increase wildland fire hazards. As such, the Project would not expose people or structures, directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Therefore, there would be no impact and no further analysis in the EIR is required.

4.9.3 MITIGATION MEASURES

There would be no significant impacts pertaining to hazards and hazardous materials; therefore, no mitigation measures are required.

4.10 HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

4.10.1 EXISTING CONDITIONS

The Raymond Basin aquifer, which underlies the Project site, is situated on an alluvial valley that covers approximately 40 square miles and is bordered by the San Gabriel Mountains on the north; the San Rafael Hills on the west; and the Raymond Fault on the south and east. The general east-west trend of the San Gabriel Mountains, the north-south trend of the San Rafael Hills, and northeast trend of the Raymond Fault result in the basin having a triangular form. The Raymond Basin is divided into the Monk Hill Subbasin to the west, the Santa Anita Subbasin to the east, and the Pasadena Subbasin in the central portion (beneath the Project site); these designations are based on differences in elevation and groundwater flow. The Raymond Basin is recharged by the Arroyo Seco, a tributary to the Los Angeles River, and by Eaton Wash, Santa Anita Wash, and other streams in the watershed (California Department of Water Resources [DWR] 2004). Pumping rights to the Raymond Basin are adjudicated and the Raymond Basin Management Board (RBMB) administers the provisions of the adjudication decree. The Board coordinates the pumping rights and the groundwater storage accounts of public and private water agencies, including the City.

The Project site is currently developed with the existing Sunset Reservoir facility owned and operated by PWP. The reservoirs are fed a blend of local well water and imported water via the

MWD P-01 turnout. PWP blends MWD water with their local well supplies to meet their water quality standards due to key constituents found in the local well supplies. These constituents include perchlorate, TCP, and nitrate.

4.10.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact.

The proposed Project would not violate any water quality standards or waste discharge requirements. The Project involves the replacement of two existing reservoirs, construction of a new on-site GWTP, and pipeline, mechanical and street improvements and site enhancements that would occur within the public right-of-way on Sunset Avenue and Mountain Street adjacent to the reservoir property. Construction of the Project would include ground-disturbing activities, such as grading, and would require cut and fill. Soil exposed by such construction activities could be subject to erosion if exposed to heavy rain, winds, or other storm events. However, as discussed in Section 4.7, Geology and Soils, the Project would implement BMPs for stormwater control to prevent sediment-laden runoff from areas of ground disturbance. As such, there would not be substantial pollutants introduced into storm water runoff, including sediment, during construction of the Project. Handling of hazardous materials and wastes during construction would be in compliance with federal, state, and local requirements, as discussed in Section 4.9, Hazards and Hazardous Materials.

The Project would incorporate LID features in accordance with the Los Angeles County stormwater requirements, including the 2014 Low Impact Development Standards Manual, the MS4 Permit, and the Hydraulic Design Manual. Stormwater at the Project site would be treated by bioretention. The bioretention facility would include an overflow and underdrain system, which would either discharge to the drain vault in the southwest corner of the site, or, if necessary, to the existing storm drain system within West Mountain Street. Stormwater facilities would be kept as far away from existing wells as possible. When possible, self-treating areas would be used to decrease the required quantity of LID features, which would be coordinated with the landscape architect during final design. Grading would be adjusted to accommodate Los Angeles County LID requirements during final design.

Waste streams produced by the Project would be disposed of correctly in accordance with applicable regulations and requirements. Well flush water would be directed to the nearby storm drain and GAC backwash waste and instrumentation waste would be directed to the sanitary sewer, located along Sunset Avenue and West Mountain Street. For the IX system, the Project would use resin that has been conditioned off-site, and forward flushing of the resin on-site would be required. GAC backwash waste would be discharged at a reduced rate to avoid backing up the sewer system. Discharge of backwash to the sanitary sewer would be permitted and regulated under a Sanitary Sewer Discharge Permit issued by the Pasadena Department of Public Works. All facilities serving the sanitary sewer would have capacity to support the waste streams produced by the Project. The volume, type, and concentration of such waste discharges to the sanitary sewer would be subject to specific permit requirements to limit potential adverse water quality effects, and therefore Project-related wastewater discharges are

anticipated to be treated at the Los Angeles-Glendale Wastewater Treatment Plant (LAGWRP) in accordance with applicable water quality standards.

Implementation of the Project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality. Impacts would be less than significant, and no further analysis in the EIR is required.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact.

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The Project involves the replacement of two existing reservoirs, construction of a new on-site GWTP, and mainline work on Sunset Avenue and the Sunset Avenue/Mountain Street intersection. The proposed GWTP would help PWP utilize their local groundwater supply and help treat for perchlorate and VOCs. The GWTP would provide PWP with greater water supply reliability and operational flexibility. The GWTP has been designed to utilize local groundwater supplies without causing adverse effects to the groundwater basin. Implementation of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. RBMB would continue to manage pumping rights and storage within the basin, which would regulate PWP's withdraws from groundwater supplies. While the Project would allow PWP more flexibility and capacity to use available supplies, implementation of the Project would not directly alter the City's withdraw rights, which would continue to be managed through RBMB. As the Raymond Basin is an adjudicated groundwater basin, it complies with California's Sustainable Groundwater Management Act, and is not required to have a separate sustainable groundwater management plan. In 2014 member pumpers, including PWP of the Pasadena Sub-basin, voluntarily agreed to reduce pumping by 30% to reduce impacts to the aquifer level. Therefore, the Project would not conflict with or obstruct implementation of a water control plan or sustainable groundwater management plan. Impacts would be less than significant, and no further analysis in the EIR is required.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation onsite or offsite?

ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

iv) impede or redirect flood flows?

Less than Significant Impact.

The Project involves the replacement of two existing reservoirs, construction of a new on-site GWTP, and street improvements and site enhancements within the public right-of-way on Sunset Avenue and Mountain Street adjacent to the reservoir property. Due to the nature of the Project, the Project would not significantly alter the existing drainage pattern of the site. With exception of the concrete equipment pads, the site would be graded to direct runoff from the high side of the site along Sunset Avenue to the southwest towards Mountain Street. As discussed above under Threshold 4.10(a), the Project would implement erosion control and sediment control BMPs that would minimize the occurrence of soil erosion or siltation. Additionally, the Project would incorporate LID features in accordance with the Los Angeles County stormwater requirements, including the 2014 Low Impact Development Standards Manual, the MS4 Permit, and the Hydraulic Design Manual. Stormwater at the Project site would be treated by bioretention, and runoff would not exceed the capacity of the stormwater drainage system, as runoff patterns would not be significantly altered from existing conditions. Any changes to on-site drainage patterns or runoff volumes would be addressed by compliance with LID requirements as noted previously, which would limit off-site stormwater discharges to the storm drain system from an 85th percentile, 24-hour rain event to pre-Project levels. This would be achieved through temporary on-site detention of stormwater flows exceeding the pre-Project conditions, which would preclude the potential for the Project's stormwater flows to exceed the capacity of existing facilities. Further, potential waste streams including chemicals and other materials utilized for water treatment, trash, motor oil and other vehicle fluids, metals, sediment, and other pollutants typically found in urban settings would not serve as a substantial source of polluted runoff given implementation of applicable stormwater BMPs during construction (as required by the Project-specific Storm Water Pollution Prevention Program) and operation (as required by the Project-specific Water Quality Management Plan) Given compliance with applicable regulations as described in Section 4.9, Hazards and Hazardous Materials, which would protect against polluted runoff.

The Project site is not subject to flood flows. According to the Federal Emergency Management Agency (FEMA), the Project site is in Zone X (areas determined to be outside the 0.2 percent annual chance floodplain) and is deemed an "Area of Minimal Flood Hazard" (FEMA 2008). Additionally, according to the City's Dam Failure Inundation Map (Plate P-2 of the Safety Element), the Project site is not located in a dam inundation area (City of Pasadena 2002a).

The Project does not represent a substantial alteration in the existing drainage pattern and there would be no adverse effects such as erosion, siltation, runoff, or flooding onsite or offsite. There would be a less than significant impact, and no further analysis in the EIR is required.

d) Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.

According to the Federal Emergency Management Agency (FEMA), the Project site is in Zone X (areas determined to be outside the 0.2 percent annual chance floodplain) and is deemed an "Area of Minimal Flood Hazard" (FEMA 2008). Zone X is located outside of the special flood hazard areas subject to inundation by the one percent annual chance of flood (100-year floodplain), and no floodplain management regulations are required. In addition, according to the City's Dam Failure Inundation Map (Plate P-2 of the Safety Element), the Project site is not located in a dam inundation area (City of Pasadena 2002a). Therefore, the Project would not result in releasing pollutants in a flood hazard zone. The City of Pasadena is located inland and is not subject to tsunami (sea waves) hazards. The Project would not expose people or

structures to tsunami hazards due to distance from the Pacific Ocean. There is no large open water body near the Project site that may pose seiche hazards. Thus, no seiche hazards would be created by the Project, and the Project would not be exposed to seiche hazards. Therefore, the proposed Project would not risk release of pollutants due to Project inundation in flood hazard tsunami, or seiche zones. There would be no impact, and no further analysis in the EIR is required.

4.10.3 MITIGATION MEASURES

There would be no significant impacts pertaining to hydrology and water quality; therefore, no mitigation measures are required.

4.11 LAND USE AND PLANNING	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

4.11.1 EXISTING CONDITIONS

The Project site is zoned as Public and Semi-Public (PS) in the City's Zoning Map and designated as Institutional in the City's Land Use Plan diagram (City of Pasadena 2018a, 2015a). The Institutional designation applies to facilities owned and operated by the City or other public and/or private institutions such as corporate yards, schools, libraries, and hospitals (City of Pasadena 2016).

4.11.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project physically divide an established community?

No Impact.

The proposed Project does not involve the displacement of existing residences or the construction of any physical barriers through the developed areas surrounding the Project area. The Project would replace existing reservoir facilities with new facilities meeting current engineering and seismic safety standards. The new facilities would have a footprint similar to existing conditions and would not divide an established community. There would be no impact, and no further analysis in the EIR is required.

b) Would the project cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact.

The proposed Project involves the replacement of the two existing reservoirs at the Project site, which may leak and do not meet current seismic requirements. The Project would also include the construction of a new GWTP within the boundaries of the site. The Project site is zoned as Public and Semi-Public and is designated as Institutional. The proposed Project improvements and components are consistent with the City's land use and zoning designation. Since no urban development is proposed and no change to the use of the land would occur with the Project, no conflict or inconsistency with regional plans (i.e., SCAG's Regional Comprehensive Plan, Regional Housing Needs Assessment, Regional Transportation Plan/Sustainable Communities Strategy, and Compass Blueprint) or with the growth forecasts used in the development of these regional plans would occur. There would be no impact and no further analysis in the EIR is required.

4.11.3 MITIGATION MEASURES

There would be no impacts related to land use and planning therefore, no mitigation measures are required.

4.12 MINERAL RESOURCES	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

4.12.1 EXISTING CONDITIONS

Mineral resources are naturally occurring chemicals, elements, or compounds such as bituminous rock, gold, sand, gravel, clay, crushed stone, limestone, diatomite, salt, borate, potash, geothermal, petroleum, and natural gas resources. Construction aggregate refers to sand and gravel (natural aggregates) and crushed stone (rock) that are used as Portland-cement-concrete aggregate, asphaltic-concrete aggregate, road base, railroad ballast, riprap, fill, and the production of other construction materials.

The California Geological Survey (CGS) has identified deposits of regionally significant aggregate resources in the State in accordance with the Surface Mining and Reclamation Act (SMARA). The Project site is not located within an area that has important mineral resources (CGS 2010).

Review of maps prepared by the California Department of Conservation shows that there are no oil, gas, or geothermal fields in or near the Project site (California Department of Conservation 2001). Additionally, there are no active or idle oil wells in or near the Project site. The nearest well is an idle oil and gas well located approximately 4.7 miles south of the Project site (Geologic Energy Management Division [CalGEM] 2021).

4.12.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact.

As discussed above, the Project site is not located within an area that has important mineral resources, and therefore, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the State. There would be no impact on regionally important mineral resources, and no further analysis in the EIR is required.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact.

There are no identified oil, gas, or geothermal resources or ongoing mining/extraction activities at the Project site. The Draft Open Space and Conservation Element of the City of Pasadena General Plan Update does not identify any mineral resources in the City (City of Pasadena 2012). Additionally, no new structures or facilities would be constructed as part of the Project that could potentially restrict or obstruct future mineral resource recovery activities within the Project site. Long-term operation and maintenance activities of the proposed Project would not require mineral resources. Thus, there would be no impacts to locally important mineral resources, and no further analysis in the EIR is required.

4.12.3 MITIGATION MEASURES

There would be no significant impacts related to mineral resources, and no mitigation measures are required.

4.13 NOISE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

4.13 NOISE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in:				
c) For a project located within the vicinity of a private airstrip or 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, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 EXISTING CONDITIONS

Noise can be defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Sound intensity or acoustic energy is measured in decibels (dBs) that are A weighted (indicated by dBA) to correct for the relative frequency response of the human ear.

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise. NSLUs in the project vicinity include the single-family residences east of Sunset Avenue. The nearest single-family residence is approximately 80 feet from the Project's eastern boundary. Although residences are in close proximity to the Project site, construction equipment would move throughout the site over the course of a workday.

The City's noise ordinance includes specific provisions regarding construction noise. Section 9.36.070 of the Municipal Code prohibits the operation of construction equipment and construction activity except from 7:00 AM to 7:00 PM Monday through Friday, and from 8:00 AM to 5:00 PM on Saturday in or within 500 feet of a residential district. Operation of construction equipment is prohibited on Sunday and on defined holidays. Section 9.36.080 of the Municipal Code prohibits the operation of powered construction equipment that generates a noise level of 85 dB(A) when measured at 100 feet.

4.13.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact.

Construction noise impacts from general construction activities of the project would include noise generated from construction equipment involved in demolition, site preparation, grading, and building construction. The loudest pieces of equipment from this type of construction would likely include a dozer, concrete saw, backhoe, and grader.

Following completion of the Project, operational noise would be generated from operation of the on-site pump room and emergency generator. The pump station would operate on a 24-hour basis and will be assessed against compliance with the City's Noise Ordinance, which allows

generation of an increase of no more than 5 decibels as measured at the property line. The emergency generator would only run for normal maintenance operations during the daytime, so the generator operations are assumed to meet the noise standard in the City's Noise Ordinance, however further analysis will be included in the EIR. The nighttime generator operations are assumed exempt for nighttime operations for emergency power supply. The nearest residential receptor located on Sunset Avenue is approximately 80 feet from the proposed emergency generator.

The Project has the potential to generate a substantial increase in noise during construction and operation and may conflict with established standards. This impact is potentially significant and will be addressed in the EIR.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Ground-borne vibration is a concern for projects that require heavy construction activity such as blasting, pile-driving, and operating heavy earth-moving equipment. Ground-borne vibration can result in a range of impacts, from minor annoyances for people to major shaking that damages buildings. Typically, ground-borne vibration generated by manmade sources attenuate rapidly with distance from the source of vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

Construction activities associated with the Project have the potential to result in ground-borne vibration. Possible sources of vibration during general Project construction activities would be a vibratory roller and large bulldozer. A vibratory roller can generate approximately 0.210 in/sec peak particle velocity (PPV) at 25 feet (Caltrans 2013). A 0.210 in/sec PPV vibration level would equal 0.05 in/sec PPV at a distance of 80 feet,[1] the distance to the nearest existing off-site structure or vibration sensitive location. This would be lower than what is considered a "strongly perceptible" level for humans of 0.12 in/sec PPV, and lower than the 0.2 in/sec PPV threshold for architectural damage to non-engineered timber and masonry buildings. In addition, a large bulldozer vibration level would equal 0.02 in/sec PPV at a distance of 80 feet, which is also below the "strongly perceptible" level for humans of 0.12 in/sec PPV. Therefore, groundborne vibration impacts from Project construction activities would be less than significant and no further analysis is required in the EIR.

c) For a project located within the vicinity of a private airship or 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, would the project expose people residing or working in the project area to excessive noise levels?

The Project is not located within an airport land use plan, and there are no airports or airstrips within two miles of the Project site. The nearest airport is the San Gabriel Valley Airport, which is located approximately 8.8 miles southeast of the Project site. Therefore, the project is not located within the noise exposure range of the airport and construction workers would not be

[1] Equipment PPV = Reference PPV * $(25/D)^n$ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2013.

exposed to excessive noise levels. No impact would occur and no further analysis is required in the EIR.

4.13.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.14 POPULATION AND HOUSING	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 EXISTING CONDITIONS

The Project site does not support a residential community nor contain residential land uses. There are nearby residential uses surrounding the Project site, to the north, south, east, and west.

4.14.2 IMPACT ANALYSIS

Impact Discussion

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?

No Impact.

The Project does not propose the construction of new homes or businesses that may result in direct or indirect population growth in the area. Also, no extension of infrastructure to unserved areas is proposed. The Project would replace the existing reservoirs at the Project site and constructing a new on-site GWTP. The presence of the construction crew would be temporary and would not generate a measurable demand for housing, goods, or services in the area.

No major change in PWP's operational or maintenance activities would occur that would lead to new employees or which would induce growth and development in the area. The Project would maintain potable water supply but would not promote development in the City or the surrounding area, as the water supply provided by the Project would accommodate existing and planned PWP customers. The Project would not extend the reach of water infrastructure. The Project would not directly or indirectly induce substantial unplanned population growth in the surrounding area. There would be no impact, and no further analysis in the EIR is required.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact.

Project construction activities would not displace existing people or housing on the site, as none exist within the Project site. Additionally, construction activities for the Project would be confined to the existing reservoir site and the adjacent roads, and would not displace people or housing located on or near the site. No housing demolition or household displacement is proposed with the Project. Thus, no displacement impacts would occur such that replacement housing would be needed. No mitigation is required and no further analysis in the EIR is required.

4.14.3 MITIGATION MEASURES

There would be no significant impacts pertaining to population and housing; therefore, no mitigation measures are required.

4.15 PUBLIC SERVICES	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

4.15.1 EXISTING CONDITIONS

Public services for the Project site are provided by the Pasadena Fire Department, the Pasadena Police Department, the Pasadena Unified School District, the City of Pasadena Parks and Natural Resources Division, the Pasadena Library, and other City departments. The Los Angeles County Fire Department and the United States Forest Service also provide wildfire protection services, particularly related to the Angeles National Forest.

Fire Protection Services

The Pasadena Fire Department provides fire protection services to the City and operates eight fire stations. Pasadena Fire Station 36, located at 1140 North Fair Oaks Avenue, is the nearest fire station, at 1,580 feet (0.3 mile) northeast of the proposed Project.

The Los Angeles County Fire Department has automatic aid agreements with 33 cities in the County, including the City of Pasadena, to provide fire protection services during a fire or medical emergency regardless of territory. Thus, City and County firefighters would provide emergency response to the Project in the event of a fire incident.

Police Protection Services

The Pasadena Police Department provides police protection and law enforcement services in the City. The Pasadena Police Department also participates in the California Law Enforcement Mutual Aid Plan and the California Disaster and Civil Defense Master Mutual Aid Agreement, which allows the City to request mutual aid from and to provide mutual aid to adjacent police protection and law enforcement agencies.

School Services

The Pasadena Unified School District (PUSD) provides school services to the Project area through the Madison Elementary School, Washington Middle School, and John Muir High School (PUSD 2021).

Parks

The City of Pasadena Parks and Facilities Department has 24 parks within its jurisdiction. There are no parks located within the boundaries of the Project site. The nearest park is Brenner Park located at 235 Barthe Drive, immediately south of the Project site across West Mountain Street. Approximately 0.2 miles east of the Project site is Robinson Park Recreation Center.

Other Public Facilities

There are ten City libraries, with the La Pintoresca Branch Library located nearest the Project site at 1355 North Raymond Avenue, approximately 0.5-mile northeast of the Project site.

4.15.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Fire protection?**
- **Police protection?**
- **Schools?**
- **Parks?**
- **Other public facilities?**

Fire Protection

No Impact.

The proposed Project would not introduce habitable structures that could generate a long-term demand for fire protection services. Additionally, the Project involves the replacement of existing reservoirs and construction of an on-site GWTP. The Project does not propose any new land uses that generate a new resident population. Thus, the Project would not result in a need for new or physically altered fire protection facilities.

The proposed Project components would not be susceptible to fire, due to the nature of the Project as a water storage and treatment facility. Project improvements would be constructed in accordance with the Pasadena Fire Prevention Code (Chapter 14.28 of the City's Municipal Code). Compliance with applicable regulations would minimize the potential for fire and, therefore, the Project's demand for fire protection services.

Construction activities would temporarily create an increased demand for fire-protection services due to the use of equipment, electricity, fuels, and other fire sources that may ignite flammable and combustible materials. However, such impacts would be temporary. Additionally, the Project would comply with the Pasadena Fire Prevention Code (Chapter 14.28 of the City's Municipal Code) and Standard Specifications for Public Works Construction (Greenbook) would further reduce fire impacts related to the Project. No new or physically altered fire protection facilities would be needed to serve the Project, and thus, there would be no impact, and no further analysis in the EIR is required.

Police Protection

No Impact.

The Project does not involve the development of habitable structures or operational activities that could increase demands for long-term police protection services. The proposed Project does not include a new land use that could attract criminal elements or criminal activities into the area. Construction activities may provide opportunities for crime (e.g., theft and vandalism). However, construction areas would be fenced, which would prevent theft and vandalism during the construction phase. There would be no impact on police protection services and no further analysis in the EIR is required.

Schools

No Impact.

The Project would occur on the existing reservoir site, which is zoned as Public and Semi-Public (PS) and designated as Institutional. The proposed Project would not generate a demand for school services because no residential land uses that may be occupied by households with school-aged children are proposed. Operation of the Project would not create a demand for school services. No impact on schools would occur with the Project, and no mitigation is required. No further analysis in the EIR is required

Parks

No Impact.

The Project would not generate a demand for parks or recreational facilities because the Project does not propose residential development that may be occupied by households that would utilize local parks and recreational areas. Additionally, Project construction and operation activities would occur within the boundaries of the Project site and directly adjacent areas and would not impact surrounding areas, including the nearby Brenner Park. There would be no impact on the level of service at City parks and no further analysis in the EIR is required.

Other Public Facilities

No Impact.

The Project would not generate a demand for libraries because the Project does not propose residential development that may be occupied by households, nor would the Project bring in other land uses that may require library services or facilities. No impact on existing library services would occur with the Project.

Long-term operation and maintenance for the Project would be similar to existing conditions. Maintenance of the proposed Project facilities would be provided by the same PWP personnel. There would be no need for any physical improvements to existing or construction of new PWP facilities. There would be no impacts to other public facilities, and no further analysis in the EIR is required.

4.15.3 MITIGATION MEASURES

There would be no significant impacts pertaining to public services; therefore, no mitigation measures are required.

4.16 RECREATION	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would/does the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 EXISTING CONDITIONS

The Project site is zoned Public and Semi-Public (PS) in the City's Zoning Map and designated as Institutional in the City's Land Use Plan diagram (City of Pasadena 2018a, 2015a). The Project site is currently developed with the Pasadena Sunset Reservoir Facility consisting of SR1 and SR2. There are no recreational facilities located on the Project site. The nearest recreational facility is Brenner Park, located south of the Project site immediately across West Mountain Street and Robinson Park Recreation Center located east of the project site.

4.16.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact.

The Project would not induce population growth directly or indirectly, which could generate a need for or increase the use of parks and recreational facilities. Project construction would occur predominantly within the boundaries of the existing facility, including pipeline infrastructure and access off of Sunset Avenue and Mountain Street. The Project would not construct structures that would directly or indirectly induce population growth. There would be no impacts to recreation, and no further analysis in the EIR is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact.

The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities, which would have an adverse effect on the environment. There would be no impact, and no further analysis in the EIR is required.

4.16.3 MITIGATION MEASURES

There would be no significant impacts pertaining to recreation; therefore, no mitigation measures are required.

4.17 TRANSPORTATION	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

4.17.1 EXISTING CONDITIONS

Regional Access

The Foothill Freeway (I-210) starts at the Golden State Freeway (I-5) in the northern portion of the San Fernando Valley, and generally runs in a southeasterly and easterly direction near the southern base of the San Gabriel and San Bernardino Mountains to the I-10 in Redlands. Caltrans estimates the 2017 traffic volumes on the I-210 north of the Project (between the junction of Lincoln Boulevard and Mountain Street) during the peak hour at 14,000 vehicles, with a peak month volume of 139,000 vehicles per day and an average daily traffic (ADT) volume of 136,000 vehicles. Caltrans estimates the 2017 traffic volumes on the I-210 south of the Project (between the junction of Mountain Street and State Route [SR] 134/SR 710) during the peak hour at 14,000 vehicles, with a peak month volume of 146,000 vehicles per day and an ADT volume of 143,000 vehicles (Caltrans 2021b).

Local Roadway Network

The Project site can be accessed via I-210 by exiting on Mountain Street and traveling east for approximately 700 feet. The site can be accessed via West Mountain Street and from the north along Sunset Avenue. In 2016, the ADT volume on Mountain Street between Chapman Avenue and Barthe Drive was 14,834 ADT. In 2018, the ADT volume on Sunset Avenue between Hammond Street and Glorieta Street was 1,675 ADT (City of Pasadena 2021). As further described in Section 3.1.3, the Project may include the construction of a new traffic signal at the Project's Mountain Street driveway in order to facilitate safe ingress and egress for vehicles accessing the site.

Transit Services

The Los Angeles County Metropolitan Transportation Authority (Metro) provides regional bus and passenger train services in the County. Metro Bus Route 267 runs along Lincoln Avenue, west of the Project site. Pasadena Transit lines 51 and 52 run nearest the Project site, on West Mountain Street, immediately south of the Project site (Los Angeles County Metro 2017).

4.17.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities?

Less than Significant Impact.

The proposed Project involves the replacement of two existing reservoirs and construction of a new on-site GWTP, as well as connections to adjacent existing utilities. Construction would occur predominantly within the boundaries of the existing Sunset Reservoir facility and incidentally within adjacent public street rights-of-way to construct pipeline connections to the City's existing water and sewer system. Construction-related traffic for the Project would be temporary and would include worker trips and truck trips carrying equipment and material to and from the Project site. Worker-related truck trips and the delivery of materials, concrete, and export of soils (if necessary) would generate additional traffic. It is anticipated that construction activities would require a peak of up to 30 vehicle round trips per day, consisting of 20 round

trips associated with worker travel to the construction site at the beginning of the work day and departure from the work site at the end of the work day, and up to 10 delivery/soil export trips per day. It should be noted that during construction activities, temporary parking for PWP employees (whose parking would be displaced during construction activities on-site) would be provided at an off-site parking lot. PWP employees would park at the off-site parking lot and be transported in shuttles to and from the existing City Yards located immediately west of the existing reservoir facility.

Increases in construction-related traffic on area roadways could result in relatively limited and temporary traffic access reductions along Sunset Avenue and W. Mountain Street. While the majority of the worker trips (in passenger cars) would occur during the AM and PM peak periods, the construction-related truck trips would be primarily scattered throughout the day. Up to 10 daily construction-related truck trips would be generated during construction activities. The impact of construction-related truck traffic would be a temporary and intermittent lessening of the capacities of adjacent streets and haul routes because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. However, the increase in 10 truck trips on local streets and haul routes would not be considered substantial as they would be scattered throughout the day. In addition, construction traffic would not result in any long-term degradation in operating conditions on affected roads. Accordingly, the Project would not cause a substantial increase in traffic in relation to the existing traffic on the street system.

In addition to the increase in traffic from construction-related activities, lane closures could occur along W. Mountain Street and Sunset Avenue during construction activities associated with pipeline and other utility connections in the street right-of-way. Most of the street construction areas are expected to be less than 20 feet wide within the pavement, sidewalk/parkway, and shoulder areas. At least one lane would remain open for traffic during construction within the affected streets as often as possible (i.e., W. Mountain Street and Sunset Avenue). During construction of the pipeline on Sunset Avenue there would be a temporary closure of one block of Sunset Avenue between Glorieta Street and West Mountain Street. An alternate route between Glorieta Street and West Mountain Street would remain open along Morton Avenue during construction hours. At least one lane would remain open on evenings and weekends. The closures of lanes and small local roadways would temporarily affect the existing transportation systems and alter present patterns of circulation.

Construction would be temporary and the specific location of potential impacts would be limited in size, and the transportation system and pre-construction patterns of circulation would be restored to pre-construction conditions upon completion of construction activities. Traffic increases and lane closures associated with the Project are not anticipated to generate substantial traffic, substantially affect transportation systems, or alter present patterns of circulation.

However, in accordance with standard regulations of the City of Pasadena, and to ensure appropriate traffic controls are implemented, approval of a Construction Staging and Traffic Management Plan (CSTMP) by the City of Pasadena would be included as a Project condition of approval. The CSTMP would require PWP's construction contractor to address vehicular circulation issues associated with the closure of traffic lanes, parking lanes, parkways, or other public rights-of-way in accordance with the Manual of Uniform Traffic Control Devices (MUTCD). Traffic control measures may include, but are not limited to flag persons, warning signs, lights, barricades and cones to provide safe passage of vehicular (including public transportation vehicles such as buses), bicycle, and pedestrian traffic, and access by emergency responders. In addition, the plan will demonstrate the location of bus stops and bus and bicycle routes that

would be temporarily impacted by construction activities and will recommend places to temporarily relocate bus stops and bus and bicycle routes. In addition, a Utility Excavation permit would be obtained from the City of Pasadena's Department of Public Works for use of other public rights-of-way. Lane closures would be conducted in accordance with the latest edition of the MUTCD. If the public right-of-way occupation requires a diagram that is not included based on the MUTCD, a separate traffic control plan must be submitted as part of the CSTMP to the City of Pasadena's Department of Transportation for approval. Implementation of the CSTMP would ensure construction-related improvements within the public right-of-way do not adversely affect vehicular circulation and access in the area. Circulation during construction, including any lane or street closures, would be approved by the City of Pasadena and included in the CSTMP prior to construction. Similarly, if the proposed addition of a traffic signal at the Mountain Avenue entrance/exit to the Project site is constructed it would be designed and installed following review and approval of the signal plans by the City's Public Works Department.

Operation of the proposed Project would not substantially increase traffic and would not result in a significant increase in operational traffic over existing conditions. Operational trips related to maintenance, deliveries, and employees would be minimal and similar to existing conditions. The Project would have similar functional infrastructure to the existing site, so the level of activity for the new Project is not expected to increase significantly. Increased operational activities associated with this project would primarily be the result of the GWTP and occasional generator testing.

Some project components would require daily inspections and weekly sampling; however, this would occur at the same time the reservoir and well that are also in operation such that site visits would represent a marginal increase in activity. Every three months, when a media exchange is needed, several operators and a large service truck would be needed for the removal and delivery of the media. Chemical delivery trips occur less than once per month and are not expected to change in frequency compared to existing conditions. Initially, more frequent monitoring and maintenance of the landscaping would be needed until such time the landscape have matured, after which general maintenance would occur roughly once per month.

Minor changes in traffic related to the Project would not conflict with an applicable program plan, ordinance, or policy; namely the Mobility Element of the City's General Plan. Impacts would be less than significant, and no further discussion in the EIR is required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact.

The analysis of vehicle miles traveled in CEQA Guidelines section 15064.3 provides that transportation impacts of projects are, in general, best measured by evaluating the project's vehicle miles traveled. Vehicle miles traveled (VMT) reflects both the number and the distance of the trips taken. On November 16, 2020 the City of Pasadena City Council adopted a resolution to replace the City's transportation performance measures with five new Transportation Performance Measures and new thresholds of significance to determine transportation impacts under CEQA. The new performance measures and CEQA thresholds are consistent with the City's adopted General Plan and Senate Bill (SB) 743 and include VMT per capita, vehicle trips (VT) per capita, proximity and quality of bicycle network, proximity and quality of transit network, and pedestrian accessibility. The new measures support the City's

vision of creating a community where people can circulate without cars, which relies upon an integrated multimodal transportation system that provides choices and accessibility for everyone in the City. Per the *Transportation Impact Analysis Current Practice and Guidelines*, any project which is expected to generate fewer than 300 new permanent daily trips is considered exempt, is not expected to generate any impacts, and does not require a full traffic analysis (City of Pasadena 2015c). The Project involves upgrades to the existing Sunset Reservoir facility and would not result in a significant increase of operational trips. The Project would result in a small number of new permanent daily trips well below the 300 daily trips threshold. Therefore, the Project would not conflict or be inconsistent with Section 15064.3(b) of the State CEQA Guidelines. There would be a less than significant impact, and no further analysis in the EIR is required.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact.

The Project would construct on-site access roads, but such roads would not include hazardous features or incompatible uses and would not be accessible to the public. Construction would occur within the boundaries of the existing Sunset Reservoir facility and would only occur for limited periods within portions of public roadways immediately adjacent to the reservoir property. Construction of pipeline connections within Sunset Avenue may result in the need to close the segment of Sunset Avenue between Glorieta Street and W. Mountain Street temporarily while pipeline construction is completed. However, traffic along Sunset Avenue would be routed around the pipeline work when necessary, and local access to residents along this block would be maintained since all homes adjacent to Sunset Avenue do not have driveway access along this street. Additionally, during construction, adherence to the Greenbook and the City's Supplements and Modifications to the Greenbook, would be required. The Greenbook also requires that access be made available at the end of each workday. Adherence to Greenbook standards and existing traffic regulations would ensure that there would not be increased hazards for any users of the road throughout construction activities involving work in the public right-of-way. With regard to long-term operations, the new reservoir facilities would be accessed via the two existing access driveways at the site, including Sunset Avenue and one on W. Mountain Street. The existing employee entrance to the north along Sunset Avenue would be widened to allow for safety and ease of traffic flow. The existing site entrance along West Mountain Street would also be maintained but would be modified to meet the new finished grade of the proposed site and may also include the construction of a new traffic signal in order to provide safe ingress and egress to vehicles accessing the site at this location. This intersection would be a three-way signalized intersection that would be designed to current City standards and would generally allow traffic along W. Mountain Street to flow except when a vehicle is entering the site from eastbound W. Mountain Street (left-turn signal) or leaving the site onto W. Mountain Street. While the construction of the traffic signal would result in temporary traffic detours, lane closures, or other limited traffic effects, the new traffic signal once operational would minimally affect traffic flow along W. Mountain Street and would increase vehicular safety at this location. An access road would run from the West Mountain Street entrance up to the GWTP site. Delivery and service trucks would enter the site from the south via Mountain Street, following the service road along the GWTP at the northwest edge of the site, and would exit the site to the north onto Sunset Avenue. The service road would be sized to accommodate large service and delivery vehicles entering and exiting the site and would

maintain space for offloading. The GWTP facility would be accessible via key-actuated motorized gates.

As such, the proposed Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Impacts would be less than significant, and no further analysis in the EIR is required.

d) Would the project result in inadequate emergency access?

Less than Significant Impact.

In the event of an emergency at the Project site, there are multiple ingress and egress points. Emergency access would be maintained at and around the Project site during construction and operation. As noted previously under Threshold 4.17.2(c), temporary lane closures or closure of a segment of Sunset Avenue would not substantially affect traffic flow in the area during construction given compliance with Greenbook specifications, the Work Area Traffic Control Handbook ("WATCH") and approval of the Construction Staging and Traffic Control plans. When the Project construction is completed, operation of the proposed Project would involve minimal and infrequent traffic in and out of the Project site and would not result in interference with emergency response access. Impacts related to emergency access would be less than significant, and no further analysis in the EIR is required.

4.17.3 MITIGATION MEASURES

There would be no significant impacts pertaining to transportation; therefore, no mitigation measures are required.

4.18 TRIBAL CULTURAL RESOURCES	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or	☒	☐	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☒	☐	☐	☐

Information in this section is based on information obtained from the Cultural Resources Assessment Report (HELIX 2021b; Appendix B). The Cultural Resources Assessment Report included a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and a pedestrian survey for the Project area.

4.18.1 EXISTING CONDITIONS

This section evaluates the Project's potential for any adverse effects on tribal cultural resources. A tribal cultural resource, as defined in Section 21074 of the Public Resources Code, is a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to California Native American tribe.

As presented above in Section 4.5, Cultural Resources, although 84 cultural resources have been previously discovered within 0.5-mile of the Project site, there are no known prehistoric archaeological resources within the boundaries of the site itself. A Sacred Lands File Search was completed by the NAHC. The NAHC indicated in a response dated April 21, 2021, that no known sacred lands or Native American cultural resources are within the Project area, but that the absence of specific site information in the Sacred Lands File does not indicate the absence of cultural resources in the Project area. Letters were sent on May 17, 2021, to the eight Native American representatives and interested parties identified by the NAHC. The only response received to date is from the Gabrieleno Band of Mission Indians - Kizh Nation, requesting contact information for the lead agency.

Assembly Bill 52 Consultation

PWP is undertaking AB 52 notifications to those Tribes who have requested notification and will initiate consultation if requested by those Tribes. Information resulting from these consultations will be used to help assess Project impacts and will be incorporated into the EIR, as appropriate.

4.18.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1,

the lead agency shall consider the significance of the resource to a California Native American tribe?

Potentially Significant Impact.

As discussed above in Section 4.5, although 84 cultural resources have been previously discovered within 0.5-mile of the Project site, there are no known prehistoric archaeological resources within the boundaries of the site itself. Additionally, the NAHC did not identify known sacred lands or tribal cultural resources within the Project site during the Sacred Lands File Search. Letters were sent on May 17, 2021, to the eight Native American representatives and interested parties identified by the NAHC. The only response received to date is from the Gabrieleno Band of Mission Indians - Kizh Nation, requesting contact information for the lead agency. Currently, no responses have been received that indicate the presence of tribal cultural resources on the Project site. PWP is currently undertaking AB 52 notification to the appropriate Tribes. Given the ongoing consultation process, at this time impacts to tribal cultural resources are considered potentially significant and will be discussed further in the EIR.

4.18.3 MITIGATION MEASURES

Mitigation measures will be developed and presented in the EIR, if applicable, for impacts that are determined to be potentially significant.

4.19 UTILITIES AND SERVICE SYSTEMS	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

4.19.1 EXISTING CONDITIONS

The Project site is currently developed with the existing Sunset Reservoir facility. Southern California Gas (SoCalGas) provides natural gas to the area and PWP provides water and power to the site.

4.19.2 IMPACT ANALYSIS

Impact Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact.

The Project itself is the construction of new water infrastructure, and the environmental impacts of the proposed facilities are addressed in this IS and will be further addressed in the forthcoming EIR. The intent of the Project is to provide necessary upgrades to the existing facility that is currently experiencing leaking tanks and replace infrastructure that does not comply with current seismic requirements. Implementation of the Project would not result in the need for relocation or construction of additional or expanded water infrastructure.

During startup of the GWTP 3,000 gpm would be conveyed to the storm drain for a short period of time in order to complete testing and permitting requirements. During typical operations, the Project would generate wastewater in the form of waste streams during operation of the GWTP. Well flush water would be directed to a nearby storm drain, and GAC backwash waste and instrumentation waste would be directed to the sanitary sewer, which are located along Sunset Avenue and West Mountain Street. Roughly 6,000 gallons per day of flows are projected to enter the sewer system. To avoid backing up the sewer system, the backwash waste would be discharged at a reduced rate. Additionally, although the Project may require slight upgrades to on-site wastewater facilities, the Project would be designed to ensure it would not generate wastewater that would require the relocation or construction of new or expanded wastewater treatment facilities and would not result in the wastewater treatment provider having inadequate capacity.

Stormwater at the Project site would be treated by bioretention. The bioretention facility would include an overflow and underdrain system, which would either discharge to the drain vault in the southwest corner of the site, or, if necessary, to the existing storm drain system(s) within West Mountain Street. Stormwater facilities would be kept as far away from existing wells as possible. When possible, self-treating areas would be used to decrease the required quantity of LID features, which would be coordinated with the landscape architect during final design. The Project would not generate stormwater that would require the relocation or construction of new or expanded stormwater drainage facilities.

Power would be provided to the Project by PWP, and emergency generator power would be provided at the site and supplied via an automatic transfer switch as needed. Power would be

required to operate the various facilities at the site. However, the Project would not substantially increase power usage at the site over existing conditions. Additionally, natural gas and telecommunication utilities may be required by the Project but would not require a substantial increase over existing conditions. The Project would not require the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities. Impacts would be less than significant, and no further evaluation in the EIR is required.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact.

The proposed Project involves the replacement of two existing reservoirs and construction of a new on-site GWTP. The Project would serve as part of PWP's critical water supply infrastructure and would provide a total water storage capacity of 11.0 MG. Minimal amounts of water would be required to operate the facility. Implementation of the Project would have a positive impact on water availability by constructing a new GWTP to treat water for the City. Therefore, the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years. There would be no impact, and no further analysis in the EIR is required.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact.

Construction and implementation of the proposed Project is not anticipated to generate a significant amount of solid waste. The construction contractor would be required to dispose of solid wastes in accordance with local solid waste disposal requirements. All non-recyclable solid waste generated during construction would be taken to a landfill with sufficient permitted capacity. Additionally, as discussed above, the grading plan would be refined during Final Design to minimize soil requiring disposal. Construction would not generate solid waste exceeding applicable standards and would not impair the attainment of solid waste reduction goals.

Operation of the proposed Project would result in the generation of minimal amounts of solid waste. The Project involves the replacement of existing reservoirs facilities on the existing site and operation of a GWTP. Solid waste from the plant would include prefilter cartridges and spent media from the LGAC and IX treatment systems. Therefore, due to the nature of the Project, the amount of solid waste generated would not be significant. In addition, GAC is provided as entirely virgin or some vendors offer regeneration. Regeneration is the process by which spent GAC from the generator of the waste (i.e., PWP) is reactivated applying a thermal process. A small amount of virgin GAC is added to make up for losses as a result of regeneration. The reactivated GAC is returned to the original owner (generator) and the performance is equal to virgin media. It also reduces disposal by landfill. Operation of the Project would not generate solid waste that would exceed State or local standards, nor impair

the attainment of solid waste reduction goals. Impacts would be less than significant, and no further analysis in the EIR is required.

4.19.3 MITIGATION MEASURES

There would be no significant impacts pertaining to utilities and service systems; therefore, no mitigation measures are required.

4.20 WILDFIRE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
c) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.20.1 EXISTING CONDITIONS

According to the Fire and Resource Assessment Program Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE map for the City of Pasadena, the Project site is not located within or near any areas designated as a VHFHSZ in either an LRA or an SRA (CAL FIRE 2011).

4.20.2 IMPACT ANALYSIS

Impact Discussion

a) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources,

power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact.

As stated above, the Project site is not located within or near any areas designated as a VHFHSZ in either an LRA or an SRA (CAL FIRE 2011). Additionally, the Project involves the replacement of existing reservoirs and construction of a new on-site GWTP. The Project would not introduce new uses to the site that would increase wildfire hazards. Therefore, there would be no impacts related to wildfires, and no further analysis in the EIR is required.

4.20.3 MITIGATION MEASURES

There would be no significant impacts associated with wildfire; therefore, no mitigation measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Does the project:				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

4.21.1 IMPACT ANALYSIS

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant.

As discussed above in Section 4.4, Biological Resources, the Project does not have the potential to impact special status biological species. Compliance with the MBTA and CFG Code would avoid impacts to birds during nesting season. Other impacts to species are not expected to occur, largely due to the urban nature of the existing site. Adherence to regulations would ensure that the Project does not degrade the quality of the environment; does not substantially reduce the habitat of fish or wildlife species; does not cause a fish or wildlife population to drop below self-sustaining levels; does not threaten to eliminate a plant or animal community; and does not reduce the number or restrict the range of Rare or Endangered plant or animal.

As discussed in Section 4.5, Cultural Resources there is potential to impact a historic resource, which may eliminate important examples of the major periods of California history or prehistory. The potentially significant cultural resource impacts will be further analyzed in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact.

State CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. Because the proposed Project has the potential for significant impacts to occur, cumulative impacts may also be significant. A cumulative impact analysis will be provided in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact.

Implementation of the proposed Project may potentially cause substantial adverse effects on human beings with potentially significant impacts to air quality, GHGs, and noise, The EIR will provide further analysis of the issue areas that may, directly or indirectly, have a significant impact on human beings.

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