

ATTACHMENT C
RESOLUTION CERTIFYING THE FEIR, ADOPTING ENVIRONMENTAL FINDINGS
OF FACT AND A MITIGATION MONITORING AND REPORTING PROGRAM

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASADENA
CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT (SCH NO.
2014101022) FOR THE ARROYO SECO CANYON PROJECT AREAS 2 AND 3,
ADOPTING ENVIRONMENTAL FINDINGS AND A MITIGATION MONITORING AND
REPORTING PROGRAM**

WHEREAS, on January 6, 2021, the Hearing Officer held a duly noticed public hearing to consider the Arroyo Seco Canyon Project Areas 2 and 3, proposed to repair and replace the City's water infrastructure facilities in the Upper Arroyo Seco, and during the public hearing on the Project, the Hearing Officer received oral and written evidence concerning the environmental impacts of the Project. This evidence included the Final EIR, including the public comments about environmental impacts that were made on the Draft Environmental Impact Report prepared for the Project. At that hearing, the Hearing Officer certified the Final EIR, adopted Environmental Findings and a Mitigation Monitoring and Reporting Program.

WHEREAS, on March 18, 2021, the Board of Zoning Appeals held a duly noticed public hearing to consider an appeal of the Hearing Officer's decision, and conducted a de novo review of the matter, including the receipt of additional public comment and responses thereto. At that hearing, the Board of Zoning Appeals certified the Final EIR, adopted Environmental Findings and a Mitigation Monitoring and Reporting Program.

WHEREAS, on June 7, 2021, the City Council of the City of Pasadena held a duly noticed public hearing to consider an appeal of the Board of Zoning Appeals' decision, and conducted a de novo review of the matter, including the receipt of additional public comment and responses thereto.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PASADENA
RESOLVES AS FOLLOWS:**

The City Council hereby certifies the Final Environmental Impact Report (SCH NO. 2014101022) For the Arroyo Seco Canyon Project Areas 2 and 3, and adopts the Findings of Fact and Mitigation Monitoring Reporting Program included in the Resolutions attached hereto.

Adopted at the _____ meeting of the City Council on the _____ day of _____, 2021 by the following vote:

Mark Jomsky
City Clerk

APPROVED AS TO FORM:

/s/ Theresa Fuentes
Theresa E. Fuentes
Assistant City Attorney



Findings of Fact Arroyo Seco Canyon Project Areas 2 and 3

**Modification to Conditional Use Permit No. 6222
State Clearinghouse No. 2014101022**

Prepared for:

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December 2020

Table of Contents

<u>SECTION</u>	<u>PAGE NO.</u>
FINDINGS OF FACT.....	1
Proposed Project Summary	1
I. Resolution Regarding Certification of the EIR	1
II. Resolution Regarding Environmental Impacts Not Analyzed in the EIR	2
III. Resolution Regarding Environmental Impacts Determined to be Less than Significant without Mitigation	2
IV. Resolution Regarding Environmental Impacts Mitigated to Below a Level of Significance.....	13
V. Resolution Regarding Environmental Impacts Determined to be Significant and Unavoidable	34
VI. Resolution Regarding Alternatives	36
VII. Resolution Regarding Significant Irreversible Environmental Changes.....	40
VIII. Resolutions Regarding Growth-Inducing Impacts	41
IX. Resolution Regarding Adoption of Mitigation Monitoring and Reporting Program	42
X. Resolution Regarding Custodian of Records	42
XI. Resolution Regarding Notice of Determination	42
ATTACHMENTS	
1 Mitigation Monitoring and Reporting Program (MMRP)	

Findings of Fact

Proposed Project Summary

As described in the Arroyo Seco Canyon Project Areas 2 and 3 Project (proposed Project) Draft Environmental Impact Report (EIR), the City owns the right to divert up to 25 cubic feet per second (cfs) of surface water from the Arroyo Seco for direct use or to spread for percolation in spreading basins for groundwater pumping credits from the Raymond Basin. Of the total amount of water that is infiltrated into the groundwater through its existing spreading basins, PWP has the right to pump between 60% to 80% of that amount for beneficial use in the City's water supply. In order to more fully capture the City's allocation of up to 25 cfs to augment local groundwater supplies, water infrastructure improvements would be constructed.

The proposed Project includes improvements in two primary areas: Area 2, Diversion and Intake Replacement and Area 3, Spreading Basin Improvements, both located within the Arroyo Seco within the City of Pasadena. These two areas are connected by the Gabrielino Trail/Access Road, which includes three bridge crossings over the Arroyo Seco in the vicinity of the Project site. The proposed Project involves water infrastructure facility improvements in both areas, as well as temporary construction truck traffic along portions of the Gabrielino Trail/Access Road.

In Area 2, the proposed Project would demolish the existing diversion and intake structures and construct a new diversion weir and intake in the same location within the Arroyo Seco as the current facility. The proposed diversion control structure would span the width of the existing channel and a weir crest gate would be mechanically operated. During high flow conditions, the weir would be lowered to move sediment downstream and periodically restore the streambed elevation to the crest of the notch. The new intake would be equipped with a trash rack and fish screens to prevent future fish from entering the conveyance system to the spreading basins in Area 3. The proposed Project would also be protective of the potential for future fish populations in the Arroyo Seco with the inclusion of a roughened channel downstream of the diversion structure that would allow return passage upstream when the weir crest gate is lowered.

In Area 3, the proposed Project includes the reconfiguration and expansion of the spreading basins in order to accommodate the increased diversion of stream flows for infiltration into the Raymond Basin. Existing Ponds 1 and 2, and Basins 1 and 2, would be replaced with Basin A and six new/expanded spreading basins. The new basins would remain connected to the remaining existing downstream basins within the City's spreading basin system. With implementation of the proposed Project, the City would be able to divert an average of approximately 3,080 acre-feet per year (acre-ft/yr), resulting in an average of approximately 1,035 acre-ft/yr of additional diverted flows into the spreading basins. Long-term operations in Areas 2 and 3 would not be substantively different than the current conditions. No new employees or operations would be required to continue maintenance on the proposed facilities.

I. Resolution Regarding Certification of the EIR

Pursuant to State CEQA Guidelines Section 15090, the Hearing Officer certifies that: (1) it has reviewed and considered the Final EIR prior to approving the project, (2) the Final EIR is an accurate and objective statement that fully complies with CEQA, the State CEQA Guidelines, and the City's local environmental guidelines, and (3) the Final EIR reflects the independent judgment of the City of Pasadena. The Hearing Officer certifies the Final EIR based on the findings and conclusions herein.

The Hearing Officer finds that the additional information provided in the staff report, in the comments (and any responses thereto) received after circulation of the Draft EIR, in the evidence presented in written and oral testimony presented at public meetings, and otherwise in the administrative record, does not constitute new information requiring recirculation of the Final EIR under CEQA. None of the information presented to the Hearing Officer after circulation of the Draft EIR has deprived the public of a meaningful opportunity to comment upon a substantial environmental impact of the project or a feasible mitigation measure or alternative that the City has declined to implement.

II. Resolution Regarding Environmental Impacts Not Analyzed in the EIR

The Hearing Officer hereby finds that the following potential environmental impacts of the project were found to be less than significant in the Initial Study, did not require the imposition of mitigation measures, and therefore did not require study in the EIR: (1) Aesthetics, (2) Agriculture and Forestry Resources, (3) Energy, (4) Geology and Soils, (5) Greenhouse Gas Emissions, (6) Hazards/Hazardous Materials, (7) Land Use and Planning, (8) Mineral Resources, (9) Population and Housing, (10) Public Services (11) Utilities and Service Systems, and (12) Wildfire (see Initial Study, Appendix A of the Draft EIR).

In addition, the following topics were scoped out within the Initial Study: (1) Air Quality [Odors] and (2) Biological Resources [Habitat Conservation Plan].

III. Resolution Regarding Environmental Impacts Determined to be Less than Significant without Mitigation

The Hearing Officer finds that the proposed Project will have no impact or a less than significant impact without mitigation on a number of environmental topics. For some of these topics, compliance with applicable regulatory requirements is assumed, as discussed in the EIR, which would ensure that impacts remain less than significant. Environmental topics determined to be less than significant without mitigation are listed below. For each topic, the discussion begins with a delineation of the potential impacts evaluated in the EIR, as specifically related to that topic, along with page citations as to where in the EIR the relevant discussion is found, and is followed by an explanation of the substantial evidence in support of the EIR conclusion that a significant impact would not occur.

a) Air Quality

i. Potential Impacts Evaluated

- Would the project conflict with or obstruct implementation of the applicable air quality plan? (Draft EIR, p. 4.1-23)
- Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Draft EIR, p. 4.1-24)

- Would the project expose sensitive receptors to substantial pollutant concentrations?
(Draft EIR, p. 4.1-30)

ii. Proposed Mitigation – None Required

iii. Findings Pursuant to CEQA Guidelines Section 15091

As noted above and explained below, the Draft EIR analysis determined that implementation of the proposed Project would not result in significant impacts related to air quality. As such, findings to CEQA Guidelines Section 15091 are not warranted.

iv. Supporting Explanation

The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard. Because the Project would not result in an increase in the frequency and severity of existing air quality violations, the Project would not conflict with Consistency Criterion No. 1 of the SCAQMD CEQA Air Quality Handbook. Additionally, implementation of the Project would not exceed the demographic growth forecasts in the SCAG 2016 RTP/SCS; therefore, the Project would be consistent with the SCAQMD 2016 AQMP, which based future emission estimates on the SCAG 2016 RTP/SCS. Thus, the Project would not conflict with Consistency Criterion No. 2. Based on these considerations, impacts related to the Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant. (Draft EIR, p. 4.1-23 through 4.1-24)

Construction of the proposed Project would result in emissions of criteria air pollutants from mobile, area, and/or stationary sources. Construction of the Project would commence with site preparation, grading and earthwork excavation. It is anticipated that approximately 1,608 cubic yards of earthwork material would be exported to support the construction of Area 2. Additionally, it is anticipated that approximately 11,000 cubic yards and 37,000 cubic yards of earthwork material would be required to be exported and imported respectively during Area 3 construction. The material is assumed to be transported during the grading and excavation phases. Upon completion of these phases, vertical building construction and paving/concrete installation would commence. Construction activity is assumed to occur at the site for approximately 8 hours per day, 5 days per week (22 days a month), during Project construction. Construction activities would not generate emissions in excess of the SCAQMD daily construction emissions thresholds for VOCs, NO_x, CO SO_x, PM₁₀, and PM_{2.5}. Based on the Project-generated construction emissions of criteria air pollutants, which did not exceed the SCAQMD daily thresholds, the Project would not result in generation of a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard due to short-term construction. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.1-24 through 4.1-30)

The City of Pasadena Department of Water and Power (PWP)'s future schedule of operation and maintenance activities for Project-related facilities would not substantively differ from the current maintenance routine and procedures. As such, the Project would not result in generation of a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard due to long-term operations. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.1-24 through 4.1-30)

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large, including residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation

centers, convalescent centers, and retirement homes. The nearest off-site sensitive receptors would be single-family homes approximately 250 feet east from Area 3. (Draft EIR, p. 4.1-30)

Localized Significance Thresholds Analysis. Construction activities associated with the Project would result in temporary sources of on-site fugitive dust and construction equipment emissions and would not exceed the SCAQMD daily LSTs for NO₂, CO, PM₁₀, and PM_{2.5} emissions in excess of site-specific LSTs; therefore, site-specific construction impacts during construction of the Project would be less than significant. (Draft EIR, p. 4.1-30 through 4.1-31)

CO Hotspots. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. During construction of the Project, construction traffic would affect the intersections near the Project site. However, the construction traffic for the proposed Project would be temporary and would not be a source of daily, long-term mobile-source emissions. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Finally, transportation impacts would be less than significant with mitigation. (Draft EIR, p. 4.1-31)

Toxic Air Contaminants. Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The construction period for the proposed Project would be approximately 16 months, after which construction-related TAC emissions would cease. However, because of the nature of the proposed Project, emissions would not be concentrated in any one work area for the entire construction duration. Project construction would not generally remain in a single location for more than a few weeks. Due to this relatively short period of exposure and minimal particulate emissions on-site, TACs generated during construction would not be expected to result in concentrations causing significant health risks. (Draft EIR, p. 4.1-31 through 4.1-32)

Health Impacts of Criteria Air Pollutants. Construction emissions of the Project would not exceed the SCAQMD thresholds for any criteria air pollutants, including VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Construction of the proposed Project would not result in exceedances of the SCAQMD significance thresholds for certain criteria pollutants (O₃, NO_x, CO, PM₁₀). Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations or potential health effects associated with criteria air pollutants due to short-term construction. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.1-32 through 4.1-33)

PWP's future schedule of operation and maintenance activities for Project-related facilities would not substantively differ from the current maintenance routine and procedures. No new employees are required for the long-term operation of the Project components; therefore, no long-term operational air quality impacts from traffic would result. No new emissions-generating land uses are proposed; therefore, no long-term operational air quality emissions from mobile equipment or stationary machinery would result. As such, the Project would not expose sensitive receptors to substantial pollutant concentrations or potential health effects associated with criteria air pollutants due to long-term operations. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.1-33)

Cumulative Impacts

Impacts resulting from the proposed Project air pollutant emissions would not be cumulatively considerable and no mitigation is required. (Draft EIR, p. 4.1-33)

b) Greenhouse Gas Emissions

i. Potential Impacts Evaluated

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Draft EIR, p. 4.4-19)
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Draft EIR, p. 4.4-21)

ii. Proposed Mitigation – None Required

iii. Findings Pursuant to CEQA Guidelines Section 15091

As noted above and explained below, the Draft EIR analysis determined that implementation of the proposed Project would not result in significant impacts related to greenhouse gas emissions. As such, findings to CEQA Guidelines Section 15091 are not warranted.

iv. Supporting Explanation

Construction of the proposed Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Total construction emissions for the proposed Project were estimated to be 523 MT CO₂e. Estimated amortized Project-generated construction emissions over 30 years would be approximately 17 MT CO₂e per year. As with Project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the proposed Project would be short-term in nature, lasting only for the duration of the construction period for each phase, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis below. (Draft EIR, p. 4.4-19)

PWP's future schedule of operation and maintenance activities for Project-related facilities would not substantively differ from the current maintenance routine and procedures. However, the project would include new hydraulic motors and winches as part of the design for Area 2, which would be electrically powered. The total proposed Project emissions during operation were estimated to be approximately 3 MT CO₂e per year which includes amortized construction emissions of 20 MT CO₂e per year. Although not quantified, the proposed Project would further reduce City's reliance upon purchased imported water supplies from the Metropolitan Water District of Southern California (MWD). Because the Project would increase the supply of local groundwater in replacement of imported water, there would be a reduction in electricity associated with the water source. For imported water, electricity is needed to supply and transport the water from sources in other parts of California, which is a very energy-intensive process to pump the water across the State through topographical elevation changes. However, for local groundwater, electricity is only needed for pumping. Accordingly, electricity associated with supply of water from MWD is avoided as a result of replacing some of the City's reliance on imported water source with local groundwater supplies. (Draft EIR, p. 4.4-20)

Consistency with the City's Climate Action Plan (CAP). The Project would be consistent with the necessary applicable GHG reduction actions found within the CAP Consistency Checklist. Additionally, the Project would not result in a change in land use that would generate GHG emissions in excess of the Project site's existing land use designation (CAP Checklist Step 2). Therefore, the Project would be consistent with the City's CAP. (Draft EIR, p. 4.4-21 through 4.4-23)

Consistency with the California Air Resources Board (CARB) Scoping Plan. The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG

emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. The proposed Project would not conflict with implementation of the measures identified in the Scoping Plan. (Draft EIR, p. 4.4-23)

Consistency with the Southern California Association of Governments' RTP/SCS. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Because the Project is not growth inducing, this type of consistency analysis does not apply. However, the proposed Project was found consistent with major goals of the Connect SoCal. (Draft EIR, p. 4.4-23 through 4.4-25)

Consistency with the Senate Bill 32 and Executive Order S-3-05. The Project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the Project would be consistent with the City's CAP. With respect to future GHG targets under SB 32 and Executive Order S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the SB 32 40% reduction target by 2030 and the Executive Order S-3-05 80% reduction target by 2050.

Based on the considerations previously outlined, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant. (Draft EIR, p. 4.4-25)

Cumulative Impacts

The analysis of the Project's GHG emissions are inherently a cumulative analysis because climate change is a global issue and the emissions from individual Projects are negligible in a global context. Accordingly, the analysis above takes into account the potential for the proposed Project to contribute to a cumulative impact of global climate change, which was determined to be less than significant. Given the proposed Project's consistency with local, statewide and regional plans adopted for the purpose of reducing GHG emissions, it is concluded that the proposed Project's incremental contribution to GHG emissions and their effects on climate change would not be cumulatively considerable. For these reasons, the proposed Project's cumulative contribution to global climate change is less than significant. (Draft EIR, p. 4.4-26)

c) Hydrology and Water Quality

i. Potential Impacts Evaluated

- 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? (Draft EIR, p. 4.5-18)
- 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:
 - Result in substantial erosion or siltation on or off site? (Draft EIR, p. 4.5-22)
 - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site? (Draft EIR, p. 4.5-27)

- 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? (Draft EIR, p. 4.5-28)
- Impede or redirect flood flows? (Draft EIR, p. 4.5-30)

ii. Proposed Mitigation – None Required

iii. Findings Pursuant to CEQA Guidelines Section 15091

As noted above and explained below, the Draft EIR analysis determined that implementation of the proposed Project would not result in significant impacts related to hydrology and water quality. As such, findings to CEQA Guidelines Section 15091 are not warranted.

iv. Supporting Explanation

The City's existing spreading basin facilities infiltrate surface water flows into the groundwater, as shown by the historic diversion of up to 25 cfs (essentially all low flows and a moderate proportion of flows during the wet season of the year) throughout recent history, and its subsequent infiltration through the spreading basins. As stated in Section 4.5, Hydrology and Water Quality in the Draft EIR, the amount of pumping credit the City receives after spreading is less than 100%, (between 60% and 80%), meaning that for every 1 acre-foot (325.8 million gallons) of the City's surface water right that is diverted, metered, and spread in the spreading basins, the City receives between 0.6 to 0.8 acre-feet in additional pumping credit, leaving 0.2 to 0.4 acre-feet in the aquifer for protection of the groundwater table (general benefit). No party to the Raymond Basin, including the City, is allowed to pump the remaining amount of City-owned water that is left in the Monk Hill Subarea. (Final EIR, Response 7-5, p. 2-108).

Disrupted infiltration of surface water into the Monk Hill Subarea during construction would result in a negligible impact to groundwater supplies due to the short-term nature of the disruption and the capacity of the adjacent Arroyo Seco streambed to continue to percolate water into the groundwater basin. Additionally, this negligible disruption would be entirely offset over time by the increased diversions in Area 2 and corresponding percolation associated with the expanded spreading basins during long-term operations of Area 3. Similarly, temporary demands for potable water during construction would represent approximately 0.0053% of the annual available water supply in the PWP service area, which is a negligible amount. Therefore, short-term construction activities would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and impacts would be less than significant. (Draft EIR, p. 4.5-18 through 4.5-19)

In the long-term, the proposed Project would allow higher flow storm events to be diverted at Area 2 because of the improved intake design and because more sediment-laden flows could be conveyed to and settled in Basin A, thereby capturing a greater proportion of the high flows for infiltration into the groundwater basin. Additionally, the expanded basin size and potentially increased percolation rates would allow for PWP to divert and recharge its 25 cfs surface water rights to a fuller extent. Because more surface area available for spreading and percolation, combined with more water available for spreading, directly results in more groundwater recharge, the proposed Project would result in a net benefit for groundwater supplies within the Raymond Basin. The increase in spreading basin surface area leading to greater recharge potential, improvements to the intake structure which would allow for continued diversion of PWP surface water rights during high flows, and the inclusion of an improved sedimentation basin to maintain higher infiltration rates, would all contribute to increased groundwater recharge in the Arroyo Seco Spreading Grounds as compared with the existing condition. Therefore, long-term operational activities would not substantially decrease groundwater supplies or interfere substantially with groundwater

recharge such that the project may impede sustainable groundwater management of the basin, and impacts would be less than significant. (Draft EIR, p. 4.5-19 through 4.5-21)

Prior to commencement of grading within Area 2, a temporary coffer dam would be installed in the Arroyo Seco upstream and downstream of the intake replacement area within Area 2, which would provide a dry area for construction activities within the streambed. The Project would involve the removal of sediment and debris that has accumulated upstream and downstream of the existing weir, and demolition would commence. During construction, erosion control measures would be implemented per the requirements of the Project's SWPPP, as required by the Construction General Permit. Construction activities within Area 3 would not require the diversion of any flows in the stream or otherwise require dewatering, as the earthwork would be above the water table and outside of the streambed of the Arroyo Seco. Therefore, compliance with the requirements of the Project Dewatering to Surface Waters Permit would ensure that the temporary diversion of the Arroyo Seco to allow for construction within the streambed would not result in substantial erosion or siltation, and impacts would be less than significant. (Draft EIR, p. 4.5-22 through 4.5-23)

The proposed improved spreading basins would allow the City to capture flows up to 25 cfs more frequently and for an expanded period of time, by allowing for additional diversions during major storm events, which typically occur in the wet season when water levels are generally not a limiting factor for the downstream natural system. Conversely, during dry season low flows, the Project would have very little change (i.e., immeasurable, if any) to current diversions within the Arroyo Seco or contribution to any existing limiting factors. (Draft EIR, p. 4.5-23)

Dry Year Velocity and Depth. The maximum velocity in the stream with the proposed Project's diversions (with-diversions) compared to a scenario of no diversions (without-diversions) was determined to be higher in some locations immediately upstream of the Devil's Gate Dam. The representative dry year without-diversions and with-diversions maximum depth drops by approximately 1.3 feet. In the without-diversion scenario, the total runoff for the representative dry year is approximately 2,480 acre-feet (af), while the with-diversions for the representative dry year is approximately 550 af. Therefore, the difference in runoff volume accounts for the difference in maximum depths. It is important to note that the area of inundation is approximately the same between the two scenarios, owing largely to the shape of the reservoir upstream of the Dam. (Draft EIR, p. 4.5-23 through 4.5-24)

Average Year Velocity and Depth. Unlike the dry year scenarios, the maximum velocity in the without-diversion scenario is higher than in the with-diversion (proposed Project) scenario in some locations immediately upstream of the Dam. The representative average year without-diversion and with-diversions maximum depth are indistinguishable from one another because the maximum water surface elevation (WSE) is the same (approximate WSE of 1,035 feet). The factor that controls the depth and WSE is the operation of Devil's Gate Dam. Despite the same maximum depths, the with-diversion scenario has greater inundation durations at the Devils' Gate Reservoir fringes because the with-diversion scenario reservoir depth reaches the operational curve elevation more slowly than does the without-diversion scenario. (Draft EIR, p. 4.5-24)

Wet Year Velocity and Depth. Like the other representative scenarios, there are differences in maximum velocity upstream of the reservoir. The difference between the representative wet year without-diversion and with-diversion maximum velocity is lower in magnitude than in the similar representative dry and average scenarios. This appears to be a function of the rate at which the reservoir fills in the represented wet year scenarios. In summary, the results of HEC-RAS modeling indicated relatively small, and in some cases negligible, effects on maximum velocity and depth of flows within the Arroyo Seco when comparing the with-diversion (proposed Project conditions) to the without-diversions (baseline conditions). The effects of the proposed Project were limited to the stream channel within the lower Devil's Gate Reservoir and the backwater area immediately upstream of the Devil's Gate Dam. It was determined that these effects would be a function of both Dam operations (i.e. timing of releases, extent of

reservoir filling) as well as increased stream diversions resulting from this proposed Project, and their individual effects were not distinguished. (Draft EIR, p. 4.5-24 through 4.5-25)

Sediment Transport. In summary, an increase in the surface water diversions at Area 2 are intended to increase the amount of surface water flow entering the spreading basins in Area 3. These proposed increased diversions, however, would be a continuation of current diversion practices during dry weather flows, and would result in a measurable increase in diversion only during larger flows. Therefore, the proposed Project would not change drainage patterns, but would merely redirect additional surface flows. The spreading basins in Area 3 would be similar in type and structure to the existing spreading basins and thus would not increase the potential for erosion above that of the existing condition. The proposed Project would not measurably alter the course of the Arroyo Seco, impact overall sediment transport, or result in substantial erosion or siltation on-site or off-site, and impacts would be less than significant. (Draft EIR, p. 4.5-26 through 4.5-27)

Construction of the diversion structure in Area 2 would require temporary diversion of Arroyo Seco Creek flows through the installation of a coffer dam upstream of the construction activity area. Stream flows would temporarily pool upstream of this coffer dam and would be pumped beyond the Area 2 construction back into the Arroyo Seco channel. Construction of the diversion structure would be scheduled to avoid the wet/rainy season that might lead to increased stream flows that could cause flooding upstream of the coffer dam. Pooled water and stream flow shall be monitored during the diversion structure construction to ensure that pumping is sufficient to prevent upstream flooding. During construction activities, no diversion would occur. Therefore, low flows would remain in the streambed throughout the duration of construction activities. Because the Arroyo Seco flows are ultimately held back at the Dam, which is designed to contain the high variability of storm flows, any variations in in-stream flows due to short-term construction activities that would result in the temporary lack of diversions into the spreading basins would be well within the natural variation of flows in the Arroyo Seco and would not increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.5-27)

The proposed improvements within Area 2 would be in the same location as the existing infrastructure. Construction of the streambed shoulder and bank, including the roughened channel, downstream of the new diversion structure would be with permeable engineered streambed material (ESM). The ESM selected for the Project would consist of a well-graded mixture of rock, gravel, and sand similar to natural streambed material, and would not add any new impervious surfaces within the Arroyo Seco streambed. In summary, the proposed improvements to the diversion structure and spreading basins would not change drainage patterns nor involve the addition of impervious cover that would impede infiltration of stormwater. Alterations in the diversion structure would increase water spreading within the basins during high flows, but would not result in the flooding of any structures. The diversion structure would be designed to divert up to the City's 25 cfs surface water right, and by design, it would not be capable of flooding other structures due to the outlet design at the terminus of the spreading basins. Rehabilitation of existing spreading basins and the grading/excavation of additional basins would increase infiltration capacity by removing less permeable materials, thus decreasing the potential for flooding and surface flows. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.5-28)

Under the current conditions, all stormwater flows are conveyed within the Project study area via sheetflows into the Arroyo Seco. There are no constructed storm drain facilities within the Project study area, other than the existing subterranean Altadena Storm Drain, the Altacrest Drain and BI 0710 – Unit 1. No realignments are proposed for these drains as part of the Project and these drains do not receive stormwater from the Project area. Therefore, the Project would have no impact on the capacity of “existing or planned stormwater drainage systems”. The proposed Project has a less than significant impact on the capacity of the Arroyo Seco to accommodate additional flows during construction activities. Regarding the potential for sources of polluted runoff, construction activities could result in

short-term erosion and associated siltation of the Arroyo Seco. Incorporation of required BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce the potential discharge of polluted runoff from construction sites, consistent with the State NPDES General Construction Permit. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Therefore, compliance with existing regulations would ensure that the Project would not add substantial sources of polluted runoff or otherwise substantially degrade surface quality from demolition and construction activities. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.5-28 through 4.5-29)

Area 2 does not currently contain a stormwater drainage system; stormwater drains naturally along the Arroyo Seco channel. Area 3 receives stormwater from three storm drains that discharge into the Arroyo Seco and bypass the Project basins, the Altadena Storm Drain, the Altacrest Drain and BI 0710 – Unit 1. No realignments are proposed for these drains as part of the Project and these drains do not receive stormwater from the Project area. Project components, both in Areas 2 and 3, would not be substantively different in type or function from the existing structures and materials. Thus, the proposed Project would not contribute additional sources of polluted runoff and impacts would be less than significant. (Draft EIR, p. 4.5-30)

Stormwater drainage in Area 2 currently follows the natural flow of the Arroyo Seco channel and thus would be temporarily altered during construction in this Area using a coffer dam and sump pump; however, these diversions would be temporary and would be scheduled so as to avoid wet/rainy season when heavy rainfall is more likely. No flows would be diverted into Area 3 during construction and thus any potential flooding would not be impeded by construction in this area but would flow parallel to Project construction activities. Impacts related to the temporary diversion of flows around the construction within Area 2 would be less than significant and no mitigation is required. (Draft EIR, p. 4.5-30)

The expanded spreading basins within Area 3 would provide additional capacity to accommodate diversions from the Arroyo Seco. This would be an expansion of an existing condition and would not otherwise impede or redirect flood flows in a manner that is substantively different from current conditions. The proposed diversion structure would continue to divert all the flows from the stream during low flow periods and a moderate proportion of flows during the wet season similar to the existing condition, but would increase diversions from the larger storm events consistent with the City's water rights. At times, during large storm events the diversion structure would be bypassed to avoid any potential debris damage. Area 3 is not proposed in an existing flood plain as identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Thus, any flows that are not diverted to the spreading basins (i.e. flows above 25 cubic feet per second), would not be affected by Project improvements. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.5-30 through 4.5-31)

Cumulative Impacts

Groundwater Supplies/Recharge. The geographic context for the analysis of cumulative impacts related to groundwater supplies and recharge is the Raymond Basin. Because the proposed Project and cumulative projects would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that they could cumulatively impede sustainable groundwater management of the basin, cumulative impacts to groundwater resources during construction and operation of the proposed Project and related projects would not be cumulatively considerable, and would not result in significant cumulative impacts. (Draft EIR, p. 4.5-31 through 4.5-32)

Hydrology/Water Quality. The geographic context for the analysis of cumulative impacts related to hydrology and water quality is the Arroyo Seco Sub-watershed boundary. The Draft EIR and supporting technical studies concluded

that no significant impacts would result from the diversion of flows associated with the proposed Project, as detailed in Section 4.2, Biological Resources, which summarizes the findings of the BRTR (see Appendix D of the Draft EIR), which includes the Arroyo Seco Canyon Diversions Biological Impacts Memorandum (see Appendix J of the BRTR in Appendix D of the Draft EIR) and the supporting Hydraulics, Sediment Transport, and Groundwater Analysis (see Appendix F of the Draft EIR). The minor impacts to riparian woodland that were identified as a result of changes in maximum inundation modeled under dry year conditions is further reduced by the County's Sediment Removal Project as explained in Topical Response BIO: Cumulative Impacts and Devil's Gate Reservoir, which is based on the Update Study (September 2020) – Arroyo Seco Canyon Diversions Biological Impacts Memorandum, included as Attachment C of the Final EIR.

The County of Los Angeles's Devil's Gate Sediment Removal Project required the development of a Habitat Mitigation and Monitoring Plan (HMMP), which includes an assessment of the hydrology of the area and concludes that, inclusive of a reduction in stream flows from the proposed Project's diversions, flows will be enough to support the existing retained vegetation as well as the additional riparian habitat to be restored per HMMP requirements throughout the Devil's Gate Reservoir area. The conclusions of the Devil's Gate Reservoir Sediment Removal Project CEQA document, HMMP, and resource agency consultation are consistent with the conclusion of the original Memo and provide further evidence that the project diversions are not expected to significantly affect downstream biological resources. It should also be noted that the conclusion of the Arroyo Seco Canyon Diversions Biological Impacts Memorandum (see Appendix J of the BRTR in Appendix D of the Draft EIR), as presented in the Draft EIR, that subsurface flows draining from adjacent uplands are expected to be the most substantial factor in supporting the riparian habitat of the Devil's Gate Reservoir is also supported by the HMMP, which describes the hydrology of the area similarly. These consistent results further verify the Arroyo Seco flows and pool inundation are less important for riparian habitat success within the Devil's Gate Reservoir area than upland subsurface flows, which are not affected by the proposed Project. The HMMP was reviewed and subsequently approved by resource agencies including the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and the Regional Water Quality Control Board. (Final EIR, Response 1-4, p. 2-9)

Because the proposed Project and cumulative projects would not 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 such a manner that could cause substantial erosion, siltation, flooding or polluted runoff, cumulative impacts to hydrology and water quality during construction and operation of the proposed Project and related projects would not be cumulatively considerable, and would not result in significant cumulative impacts. (Draft EIR, p. 4.5-32 through 4.5-33)

d) Noise

i. Potential Impacts Evaluated

- Would the project result in generation of excessive groundborne vibration or groundborne noise levels? (Draft EIR, p. 4.6-16)

ii. Proposed Mitigation – None Required

iii. Findings Pursuant to CEQA Guidelines Section 15091

As noted above and explained below, the EIR analysis determined that implementation of the proposed Project would not result in significant impacts related to noise. As such, findings to CEQA Guidelines Section 15091 are not warranted.

iv. Supporting Explanation

The nearest vibration-sensitive receivers near Area 2 are residences located approximately 800 feet to the east to where demolition/construction activity would be occurring on the Project site and with anticipated construction equipment. The nearest vibration-sensitive receivers near Area 3 are residences located approximately 250 feet to the east to where demolition/construction activity would be occurring on the Project site and with anticipated construction equipment. The major concern with regards to construction vibration is related to building damage, which typically occurs at vibration levels of 0.5 inches per second or greater for buildings of reinforced-concrete, steel, or timber construction. The anticipated vibration levels associated with on-site Project construction at Areas 2 and 3 would be approximately 0.0005 and 0.0028 inches per second respectively, which are well below the threshold of 0.5 inches per second for building damage. Therefore, short-term construction activities of the proposed Project would not result in generation of excessive short-term groundborne vibration or groundborne noise levels. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.6-16 through 4.6-17)

PWP's future schedule of operation and maintenance activities for Project-related facilities would not substantively differ from the current maintenance routine and procedures. No new employees are required for the long-term operation of the Project components; therefore, no long-term operational vibration from traffic would result. Area 2 would include the installation of several pieces of mechanical equipment (motors and winches). However, these items would be relatively small, would not produce substantial levels of groundborne vibration and would operate infrequently. At Area 3, no new noise-generating land uses are proposed; therefore, no long-term operational vibration from mobile equipment or stationary machinery would result. As such, the Project will not result in generation of excessive long-term groundborne vibration or groundborne noise levels. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.6-17)

Cumulative Impacts

The proposed Project and related projects may generate vibration during construction processes. Vibration produced during construction of the Project would be well below thresholds of perception, annoyance or building damage. The Devil's Gate Project EIR determined that there could be an exceedance of the Los Angeles County threshold of perception; therefore, a mitigation measure was required, restricting the use of large bulldozers and other large equipment within 180 feet of residential uses. With implementation of this mitigation measure, it was determined that the resultant vibration would be less than significant. Additionally, the closest portion of the Project site representing an active work area (Basin J) is located approximately 500 feet from the Devil's Gate Project site to the southwest. Therefore, construction vibration from the two projects is not expected to combine at nearby noise-sensitive receivers. Cumulative impacts related to construction vibration would therefore be less than significant. (Draft EIR, p. 4.6-19)

e) Tribal Cultural Resources

i. Potential Impacts Evaluated

- 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:
 - 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)? (Draft EIR, p. 4.9-8)

ii. Proposed Mitigation – None Required

iii. Findings Pursuant to CEQA Guidelines Section 15091

As noted above and explained below, the EIR analysis determined that implementation of the proposed Project would not result in significant impacts related to tribal cultural resources. As such, findings to CEQA Guidelines Section 15091 are not warranted.

iv. Supporting Explanation

No archaeological resources were identified within the Project site as a result of the California Historical Resources Information System records search or Native American outreach, or associated with the three previously recorded prehistoric or historic-era archaeological resources identified within 0.5-mile of the Project site (i.e. the John L. Behner Water Treatment Plant, Bridge No. 2 [concrete arch bridge], and Bridge No. 3 [king truss bridge]). No previously recorded tribal cultural resources (TCR)s listed in the CRHR or a local register were identified within the Project site. During the AB 52 notification and consultation process, the consulting Tribe provided documentation for their belief that TCRs affiliated with the Tribe do exist within and surrounding the proposed Project site. A short-term impact to a TCR can be defined as an impact that would prevent potential use of or access to a tribal cultural resource, such as for ceremonial purposes; however, no TCRs have been identified on the Project site that meet these criteria of use. Therefore, there are no Project-related conditions that would cause a short-term impact, regardless of presence of any archaeological or tribal cultural resources. Therefore, short-term construction impacts related to a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources would be less than significant, and no mitigation is required. (Draft EIR, p. 4.9-8)

Based on the results of the archaeological records search, the NAHC Sacred Land Files search and AB 52 consultation, impacts to tribal cultural resources would be less than significant. Therefore, no mitigation measures are required. (Draft EIR, p. 4.9-8)

Cumulative Impacts

Sufficient evidence of existing TCRs within or surrounding the Project site has not been identified through various records searches or AB 52 consultation and as such, the Project site is not part of an existing or known grouping of TCRs that would be impacted as part of the cumulative impacts of other projects. The Devil's Gate Sediment Removal Project Environmental Impact Report was completed prior to the enactment of AB 52; therefore, no formal tribal consultation was conducted for that project. However, the Devil's Gate Sediment Removal Project EIR did include mitigation measures, including archaeological monitoring of native sediments, to address any potential impacts to known or unknown cultural resources. Determinations would be made on a case-by-case basis, and the effects of cumulative development on TCRs would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, the proposed Project would not cumulatively contribute to a significant impact associated with TCRs and impacts would be less than significant. (Draft EIR, p. 4.9-10)

IV. Resolution Regarding Environmental Impacts Mitigated to Below a Level of Significance

The Hearing Officer finds that mitigation measures have been identified in the Final EIR that will reduce the following potentially significant environmental impacts to below a level of significance. For each environmental topic within this category, the discussion below begins with a delineation of the potential impacts evaluated in the EIR, as specifically related to that topic, along with page citations as to where in the EIR the relevant discussion is found,

and is followed by presentation of the mitigation measure(s) identified in the EIR for that topic, and then provides an explanation of the substantial evidence in support of the EIR conclusion that the impact would be reduced to a level less than significant with implementation of the mitigation measure(s).

f) Biological Resources

i. Potential Impacts Evaluated

- Would the project have a substantial adverse effect, either directly or through habitat modifications, 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 Game or U.S. Fish and Wildlife Service? (Draft EIR, p. 4.2-20)
- 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 Game or U.S. Fish and Wildlife Service? (Draft EIR, p. 4.2-21)
- 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? (Draft EIR, p. 4.2-28)
- 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? (Draft EIR, p. 4.2-31)
- Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Draft EIR, p. 4.2-35)

ii. Proposed Mitigation

Special-Status Wildlife Species

MM-BIO-1 Prior to commencement of any earthmoving activities or the pre-construction staging of equipment on the Project site, the City shall develop a Preconstruction Survey and Relocation Plan for terrestrial reptiles, including the California newt, two-striped gartersnake, Southern California legless lizard, and coastal whiptail. Although considered to be extinct, Pasadena shrimp (*Syncaris pasadenae*) will be added to the Plan as a focal species. The Preconstruction Survey and Relocation Plan shall be submitted to the California Department of Fish and Wildlife (CDFW) for review prior to any ground-disturbing activities within potentially occupied habitat.

The Plan shall include at a minimum, the following: (1) protocols for pre-construction surveys to flush out and/or move identified special status wildlife within the study area, as feasible; (2) the timing, frequency, and locations where surveys should be conducted; (3) the habitat and conditions in the proposed relocation site(s); (4) the methods that would be used for trapping and relocating identified species; (5) protocols for documentation/recordation of the species and number of animals relocated; and (6) protocols for notifying CDFW in the event that identified species cannot be relocated.

The Plan shall require that a Biological Monitor be present during all vegetation clearing and ground disturbance activities within Area 2, as well as three times weekly until construction activities are

completed. For Area 3, a Biological Monitor will be present during initial vegetation clearing and initial ground disturbance activities. The Biological Monitor shall be familiar with southwestern willow flycatcher and least Bell's vireo and shall conduct pre-clearing non-protocol surveys for this species while onsite. If a least Bell's vireo or other State of federally listed species is detected, work activity within 500 feet of the detected occupied habitat will be temporarily halted and the City will consult with the appropriate wildlife agencies. With authorization from these agencies, which may include a 'take' permit, the project will proceed in accordance with conditions developed in the consultation. Conditions will include avoidance and minimization measures to prevent or minimize impacts on the listed species(s) occurring on or adjacent to the site.

The Plan shall require that any individual special-status terrestrial wildlife species observed within the study area during the pre-construction survey(s) shall be flushed out and/or moved out of harm's way to avoid direct impacts to these species, and if special-status species are detected, the Biological Monitor shall capture and relocate individuals to nearby undisturbed areas with suitable habitat outside of the construction area, but as close to their origin as possible. The final recordation/documentation of any wildlife relocated during Project activities shall be made available to CDFW for confirmation that construction activities were executed in compliance with the approved Preconstruction Survey and Relocation Plan.

MM-BIO-2

Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code with methods approved by the California Department of Fish and Wildlife (CDFW) to protect active bird/raptor nests. To the maximum extent feasible, vegetation removal shall occur during the non-breeding season for nesting birds (generally late September to early March) and nesting raptors (generally early July to late January) to avoid impacts to nesting birds and raptors. If the Project requires that work be initiated during the breeding season for nesting birds (March 1–September 30) and nesting raptors (February 1–June 30), in order to avoid direct impacts on active nests, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 3 days prior to clearing of any vegetation and/or any work near existing structures (i.e., within 300 feet for nesting birds, 500 feet for southwestern willow flycatcher and least Bell's vireo, and within 500 feet for nesting raptors). If the Biologist does not find any active nests within or immediately adjacent to the impact areas, the vegetation clearing/construction work shall be allowed to proceed.

If the Biologist finds an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified Biologist: (1) clearing limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting birds, 500 feet for southwestern willow flycatcher and least Bell's vireo, and 300–500 feet for nesting raptors), unless otherwise determined by a qualified Biologist and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants.

Construction can proceed when the qualified Biologist has determined that fledglings have left the nest or the nest has failed.

MM-BIO-3

A CDFW-approved bat biologist shall conduct a pre-construction bat habitat assessment within the Project and within a 500-foot buffer. The assessment will consist of a daytime roost assessment to identify any sign indicating presence (i.e. guano, staining, etc.), acoustic monitoring for nighttime bat emergence and foraging activity, and visual emergence observations. Potential for roosting shall be categorized by 1) potential for solitary roost sites, 2) potential for colonial roost sites (10 bats or more). If the potential for colonial roosting is determined, those trees shall not be removed during the bat maternity roost season (March 1 – July 31). Trees potentially supporting colonial roosts outside of maternity roost season, and trees potentially supporting solitary roosts may be removed via a two-step removal process, whereby some level of disturbance (such as trimming of lower branches) (at the direction of Biological Monitor) is applied to the tree on day one to allow bats to escape during the darker hours, and the roost tree shall be removed two days later (i.e., there shall be no less or more than two nights between initial disturbance and the grading or tree removal). When feasible, trees will be dropped slowly and a Biological Monitor will monitor the activity. If buildings are determined to be occupied, one-way exclusionary devices will be placed over bat access points and left in place for two nights prior to building removal.

MM-BIO-4

Direct impacts to sensitive vegetation communities (white alder–California sycamore woodland association and California sycamore woodlands alliance) shall be mitigated through a combination of on-site and/or off-site measures. Mitigation for impacts to sensitive vegetation communities shall consider and overlap with compensation for jurisdictional waters (MM-BIO-6) since the sensitive vegetation is associated with the jurisdictional limits of Arroyo Seco. Mitigation for direct impacts to sensitive vegetation communities shall be implemented through on-site creation/enhancement, program funding, mitigation bank credits, and/or creation/enhancement of native vegetation communities on City lands. Mitigation acreages shall be implemented as shown in the Table below.

Sensitive Vegetation Community	Direct Impacts (acres)	Mitigation Ratio	Mitigation (acres)
white alder–California sycamore woodland association	0.47	3:1	1.41
California sycamore woodlands alliance	0.04	3:1	0.12
Totals:	0.51	—	1.53

On-site Mitigation. White alder-California sycamore woodland association and California sycamore woodlands alliance could be established within Area 1 (previously approved components of the Arroyo Seco Canyon Project), and California sycamore woodlands alliance could be established in the upland portions surrounding the spreading basins in Area 3. Prior to the issuance of a grading permit or any earthwork on the Project site, PWP shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) for habitat enhancement and creation activities. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. The HMMP shall include restoration of the following habitats:

Riparian Woodlands. Impacted areas of (white alder–California sycamore woodland association and California sycamore woodlands alliance) shall be created/restored within and adjacent to the same on-site areas that the woodland currently existed prior to Project implementation, as well as other areas deemed to have appropriate soils and topography for successful establishment. Understory areas shall be revegetated with a diversity of locally collected seeds. Temporary irrigation shall be established and maintained, with irrigation suspensions in times of rainfall. Successful establishment of the woodland shall be determined only after removal of irrigation system and confirmed ability of the woodland to survive in the absence of irrigation.

It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.

Off-site Mitigation. If mitigation is implemented through mitigation program funding and/or mitigation bank credits, the City shall work with CDFW, USACE, and RWQCB to ensure the mitigation program funding and/or mitigation bank credits are appropriate to offset permanent impacts. If program funding is utilized, it would be accompanied by a specific work plan identifying habitat/jurisdictional resource acreage and/or functional gains. Mitigation lands shall be comprised of similar or higher quality riparian woodland and preferably located in the vicinity of the site or watershed. Off-site mitigation lands will be protected in perpetuity under a conservation easement, with a non-wasting endowment and manager/easement holder for long-term management.

If mitigation is implemented through offsite enhancement of City-owned lands, the City shall prepare a HMMP that details the location and existing conditions of the offsite lands. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.

MM-BIO-5

To prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence) prior to ground disturbance activities. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits. A qualified biologist shall be present during initial ground-disturbing activities within the Project site to ensure that Project activities stay within the demarcated limits. The integrity of the demarcation limits will be checked in accordance with the monitoring required in MM-BIO-1.

Additionally, all hollow posts and pipes associated with new facilities in Areas 2 and 3 shall be capped to prevent wildlife entrapment and mortality. Metal fence stakes used on the Project site shall be plugged with bolts or other plugging materials to avoid impacts to raptor talons. Additionally, the City shall ensure the prohibition of the use of rodenticides throughout all construction activities.

MM-BIO-6

Mitigation for direct impacts to jurisdictional waters shall be implemented through on-site enhancement of remaining jurisdictional waters and/or off-site acquisition, program funding, and/or mitigation bank credits. Mitigation ratios for each type of jurisdictional waters is shown in the Table below. Mitigation for temporary and permanent impacts to jurisdictional wetlands and waters shall consider and overlap with compensation for sensitive vegetation communities (MM-BIO-4).

Jurisdictional Waters Type	Direct Impacts (acres)	Mitigation Ratio	Mitigation (acres) ^a
USACE waters of the United States	0.20	1:1	0.20
RWQCB waters of the state	2.58	1:1	2.58
CDFW streambed and bank, with riparian vegetation ^b	0.49	3:1	1.47
CDFW streambed and bank, with non-riparian habitat ^c	2.41	1:1	2.41

Notes:

- ^a Mitigation areas for each jurisdictional type may overlap
- ^b white alder–California sycamore woodland (0.48 acres) and coast live oak woodland (<0.01 acres)
- ^c California sagebrush–California buckwheat–laurel sumac scrub (<0.001 acres); urban/developed (0.03 acres); disturbed habitat (2.38 acres); laurel sumac scrub (<0.01 acres)

On-site Mitigation. Jurisdictional waters and associated vegetation could be established within Area 1 (previously approved components of the Arroyo Seco Canyon Project). Prior to the issuance of a grading permit or any earthwork on the Project site, PWP shall prepare a HMMP for habitat enhancement and creation activities. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. The HMMP shall include restoration of the following habitats:

Riparian Woodlands. Impacted areas of (white alder–California sycamore woodland association and coast live oak woodland) shall be created/restored within and adjacent to the same on-site areas that the woodland currently existed prior to Project implementation, as well as other areas deemed to have appropriate soils and topography for successful establishment. Understory areas shall be revegetated with a diversity of locally collected seeds. Temporary irrigation shall be established and maintained, with irrigation suspensions in times of rainfall. Successful establishment of the woodland shall be determined only after removal of irrigation system and confirmed ability of the woodland to survive in the absence of irrigation.

It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to the CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.

Off-site Mitigation. If mitigation is implemented through mitigation program funding and/or mitigation bank credits, the City shall work with the CDFW, USACE, and RWQCB to ensure the mitigation program funding and/or mitigation bank credits are appropriate to offset permanent impacts. If program funding is utilized, it would be accompanied by a specific work plan identifying habitat/jurisdictional resource acreage and/or functional gains. Mitigation lands shall be comprised of similar or higher quality riparian woodland and preferably located in the vicinity of the site or watershed. Off-site mitigation lands will be protected in perpetuity under a conservation

easement, with a non-wasting endowment and manager/easement holder for long-term management.

If mitigation is implemented through offsite enhancement of City-owned lands, the City shall prepare a HMMP that details the location and existing conditions of the offsite lands. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to the CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.

MM-BIO-7

Prior to the commencement of earthmoving within Area 2 for the demolition of the existing diversion/weir structure, the City shall develop a Native Resident and Migratory Fish Monitoring Plan (Monitoring Plan), in consultation with CDFW. This Monitoring Plan shall set forth annual monitoring requirements to determine if native fish species or migratory fish populations are present within an approximate 3,500-foot section of the stream (about 1,500 feet upstream of the diversion/weir structure to the abandoned headworks (Area 1) and 2,000 feet downstream to the JPL Bridge at the mouth of the canyon). The Monitoring Plan will include the results of the baseline conditions for fish, which shall be conducted prior to commencement of earthwork in Area 2 within the 3,500 section of the stream using the survey methodology described in the 2010 California Salmonid Stream Habitat Restoration Manual (4th Edition). Annual survey protocols shall be established to the satisfaction of CDFW and set forth in the Monitoring Plan. If the results of the annual surveys reveal a positive presence of native fish, the Monitoring Plan shall set forth thresholds for determining the permanency of the population, and whether or not connectivity both upstream and downstream of the diversion structure is appropriate and in the best interest of the long-term survival of an established native or migratory fish population, given hazards associated with stranding downstream. Until passage for steelhead is restored to the Arroyo Seco, the City shall implement a program to rescue fish between the diversion structure and the JPL Bridge. If rescue is determined to be ineffective or impractical, then the City shall modify its operations to accommodate passage. At such time as steelhead passage is restored, the City shall alter either the design of the diversion/weir structure, the operational methods of the diversion/weir structure, or both to satisfy Fish and Game Code Sections 5901 and 5937.

MM-BIO-8

A qualified biologist shall be present during initial ground-disturbing activities within the Project site to ensure that Project activities stay within the demarcated limits, as required in MM-BIO-5. This qualified biologist shall identify the number of City-protected trees that are removed as a result of Project construction activities, as well as trees that would be encroached upon. This inventory of trees shall be used to determine an appropriate tree replacement program that shall be, at a minimum, consistent with the administrative guideline tree replacement matrix of the City's Tree Ordinance (Chapter 8.52 of the Pasadena Municipal Code), as it relates to tree replacement of protected trees.

Trees within approximately 15 feet of proposed construction activity shall be temporarily fenced with chain-link fencing in accordance with the City's Tree Ordinance and Tree Protection Guidelines. The fencing shall be installed to the extent of the tree's dripline plus four (4) radial feet and be

minimum six (6) feet high with an access gate of minimal width. The fenced area shall be considered the Tree Protection Zone (TPZ) unless proximate construction required temporary removal.

All trees that have been substantially root pruned (30% or more of their root zone) during construction within the TPZ shall be monitored by an International Society of Arboriculture Certified arborist for the first five years after construction completion. The arborist shall submit an annual report, photograph each tree and compare tree health and condition to the original, pre-construction baseline. For trees that do not survive the five-year monitoring period, such trees shall be replaced in accordance with the requirements of this measure.

For all trees that are identified for removal resulting from the proposed Project, such trees shall be inspected by a qualified arborist for contagious tree diseases, including but not limited to Polyphagous Shot Hole Borer; thousand canker fungus, and goldspotted oak borer. If contagious tree diseases are identified, the trees shall be treated using the best available management practices relevant for each tree disease observed prior to transporting the trees offsite.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

iv. Supporting Explanation

One special-status amphibian (California newt) and three reptiles (two-striped gartersnake, Southern California legless lizard, and coastal whiptail) have occurred in the study area. These species are all designated as CDFW special-status species (SSC). It is unlikely that short-term construction activities could cause the greater population of these special-status species to drop below self-sustaining levels due to the relatively small area of construction activity and the short-term nature of the construction schedule. However, in order to ensure that potential impacts to special status species are reduced to the extent feasible, MM-BIO-1 requires the preparation of a Pre-Construction Survey and Relocation Plan, which would set forth protocols and procedures for surveying, identifying, and relocating wildlife that may be within the construction impact area. Project implementation of MM-BIO-1 would reduce potential direct impacts to special-status reptile wildlife (i.e. California newt, two-striped gartersnake, Southern California legless lizard, and coastal whiptail) to a level less than significant. In addition, the Project could result in direct impacts to nesting birds (i.e., direct impacts to individuals, active nests, eggs, or young), particularly during the general nesting season of February 1 through August 31. Construction activities that could result in direct impacts to nesting birds include vegetation and tree removal during grading activities. Project implementation of MM-BIO-2 (i.e., seasonal recommendations, pre-construction survey, avoidance buffers, and monitoring) would reduce potential direct impacts to a less-than-significant level. One special-status bat species (hoary bat) has a moderate potential for day/night roosting, maternity roosts, and foraging habitat within the study area. No direct temporary impacts would occur; however, because habitat loss and/or mortality or injury to individual species is a reasonable possibility, direct permanent impacts would be considered potentially significant. Project implementation of MM-BIO-3 (i.e., seasonal recommendations, preconstruction survey, avoidance buffers, and monitoring) would reduce potential direct impacts to a less-than-significant level. Direct impacts to day roosts occupied by individual special-status bat species would be less than significant as the impact would not be expected to reduce populations to below self-sustaining levels. (Draft EIR, p. 4.2-20 through 4.2-21)

During operations, City personnel would continue to provide maintenance of the diversion and intake structures in Area 2 as occurs under existing conditions. When necessary, cleaning of the spreading basins in Area 3 would

continue to be accomplished by mechanically scraping the top layer of soil using front-end loaders, graders, or scrapers. Regular maintenance of these areas to maintain the function of each facility will limit the growth of vegetation that could provide habitat for special-status species. As such, no long-term operational impacts are expected to special-status species. (Draft EIR, p. 4.2-21)

The proposed Project would have direct impacts to two CDFW sensitive vegetation communities: white alder-California sycamore woodland association and California sycamore woodlands alliance due to the construction in Area 2 of the new roughened channel and slope stabilization. The white alder-California sycamore woodland and California sycamore woodlands alliance vegetation communities are considered sensitive by CDFW due to their relative rarity and therefore, the loss of these vegetation communities (both permanent and temporary) would be considered significant, absent mitigation. Project implementation of MM-BIO-4 (i.e., compensation for direct impacts to sensitive vegetation communities) would reduce potential direct impacts to a less-than-significant level. Potential short-term or temporary indirect impacts to sensitive vegetation communities in the study area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust, increased human activity, and the introduction of pollutants from construction equipment. Potential construction-related indirect impacts to sensitive vegetation communities would be less than significant with the implementation of MM-BIO-5 (i.e., demarcation of disturbance limits) and MM-BIO-6 (biological monitoring during construction). (Draft EIR, p. 4.2-21 through 4.2-22)

The proposed Project would result in direct temporary and/or permanent impacts to these potentially jurisdictional waters. Direct impacts include discharge of fill (i.e., grading and construction/reconstruction of structures) to potentially jurisdictional waters, which would alter the size, scope, and character of these aquatic resources and therefore would be significant, absent mitigation. Potential permanent and/or temporary direct impacts to potential jurisdictional waters would be reduced to less than significant with the implementation of MM-BIO-5 and MM-BIO-6 (i.e., on-site restoration and/or land acquisition, mitigation program funding, and/or mitigation bank credits). Consultation with, and permit issuance from, USACE, RWQCB, and CDFW may result in higher mitigation ratios and specific criteria for restoration beyond the minimum standards presented in this mitigation. Potential temporary indirect impacts to potential jurisdictional waters in the study area would primarily result from construction activities and would include impacts from the generation of fugitive dust and the introduction of chemical pollutants (including herbicides). The required SWPPP will mandate the implementation of best management practices (BMPs) to reduce or eliminate construction-related pollutants in the runoff, including sediment. Therefore, temporary indirect impacts would be less than significant due to compliance with regulations. (Draft EIR, p. 4.2-28 through 4.2-30)

Potential long-term operational impacts are related to aquatic and semi-aquatic movement over the diversion structure. Factors that affect suitability for movement include existing natural and proposed Project features such as, channel bank slope gradients, vegetative cover, surface flow conditions, subsurface (i.e., groundwater) conditions, the height of the diversion structure relative to stream elevations upstream and downstream of the diversion, and presence/absence of fish screens in the diversion intake. The proposed Project has been designed in consideration of a future condition where fish are re-established in the Arroyo Seco. In this potential future scenario, the proposed Project design does not conflict with Fish and Game Codes 5901 and/or 5937. Until such time as connectivity is re-established for fish passage at the Devil's Gate Dam and channels to the ocean downstream of the Project, and to Brown Mountain Dam upstream, MM-BIO-7 (Native Resident and Migratory Fish Monitoring Plan preparation and implementation) is recommended to be responsive to the CDFW comment letter received during the NOP review period for this Project to allow for the future use of the Study Area as a movement corridor for native resident or migratory fish species. (Draft EIR, p. 4.2-31 through 4.2-35)

Direct impacts to trees can be classified as a removal or encroachment. Trees are identified for removal when they are located within the permanent impact boundary. Direct tree impacts would result in the removal of 19 protected trees in total, of which all are located in Area 2. Impacts to these trees would be significant, absent mitigation, in accordance with the City's Tree Ordinance (Chapter 8.52 of the Pasadena Municipal Code). Project implementation of MM-BIO-8 (i.e., tree replacement and protection) would reduce potential direct impacts to a less-than-significant level. Indirect impacts to trees are the result of changes to the site that may cause tree decline, even when the tree is not directly injured. Indirect tree impacts may potentially occur to 13 additional protected trees. Indirect impacts could potentially result in tree mortality adjacent to the Project work areas, which would be significant, absent mitigation, under the City's Tree Ordinance. Project implementation of MM-BIO-8 would reduce potential indirect impacts to a less-than-significant level. (Draft EIR, p. 4.2-35 through 4.2-37)

Cumulative Impacts

As part of the Final EIR, the *Update Study (September 2020) - Arroyo Seco Canyon Diversions Biological Impacts Memorandum* (included as Appendix C to the Final EIR) provides an update to the analysis included in the Draft EIR and BTRR related to cumulative impacts associated with the ongoing County of Los Angeles Department of Public Works' Devil's Gate Reservoir Sediment Removal Project located adjacent to the Project site. The Update Study reviews the potential water diversion impacts of the proposed Project under the changed conditions resulting from the initiation of the Devil's Gate Reservoir Sediment Removal Project. Based on aerial photography from March 2020, approximately 31 acres were disturbed in the initial phase of the Devil's Gate Project. As subsequent phases of the Devil's Gate Project are completed, the disturbance footprint will continue to expand throughout the 65-acre designated sediment removal area. At the completion of the Devil's Gate Project, the County will annually remove new growth within a 42-acre long-term maintenance area.

As a consequence of the recontoured Reservoir basin, the inundation margins within the Reservoir will have retracted back into the unvegetated disturbance area; therefore, the previously identified minimal impacts of the proposed Project as set forth in the Draft EIR on riparian woodland and associated species will be further reduced. In other words, the recent change in existing conditions due to the County's Sediment Removal Project has reduced the area potentially supporting riparian vegetation at the margins and the proposed Project's estimated impact on downstream biological resources is also reduced, resulting in a less significant impact than even previously modeled.

As a result of the Devil's Gate Project and associated reservoir basin recontouring, the vertical distance from some of the remaining vegetation to the reservoir pool is expected to increase beyond reach thereby reducing the vegetation's hydraulic reliance on the pool. As a result, a slight retraction in the pool margin resulting from project diversions would impact less riparian woodland vegetation than previously modelled for the Draft EIR, resulting in a less significant impact than previously modeled.

The Devil's Gate Project also includes a habitat restoration element within upper portions of the Reservoir area. Project mitigation and regulatory permit conditions associated with the Devil's Gate Project required the development of a Habitat Mitigation and Monitoring Plan (HMMP), which concludes that the hydrology of the area, inclusive of a reduction in stream flows from the proposed project diversions, is enough to support the existing retained vegetation as well as the additional riparian habitat to be restored per HMMP requirements throughout the Reservoir area. Habitat mitigation efforts within the reservoir area are also expected to result in an increased overall community health due to increased biological diversity over time. Both the projected increased health and the long-term maintenance requirements of the HMMP are expected to increase the likelihood of riparian habitat persistence and expansion in the reservoir area. As a result, minor changes resulting from Project diversions are

increasingly more unlikely to negatively affect the riparian habitat of the reservoir area and have a less than significant impact on habitat mitigation efforts. (Final EIR, Topical Response BIO, p. 2-267)

The Project's contribution to cumulative impacts would be reduced to less than significant or avoided through the mitigation measures. Therefore, with implementation of MM-BIO-1 through MM-BIO-8, impacts would not be cumulatively considerable. (Draft EIR, p. 4.2-37 through 4.2-39)

g) Cultural Resources

i. Potential Impacts Evaluated

- Would the project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5? (Draft EIR, p. 4.3-22)
- Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Draft EIR, p. 4.3-35)
- Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Draft EIR, p. 4.3-36)

ii. Proposed Mitigation

MM-CUL-1 Prior to the commencement of construction vehicle and truck traffic along the Gabrielino Trail/Access Road north of the JPL Bridge, the City shall ensure that Bridge No. 2 and all identified arroyo stone wall features along the affected portions of the Gabrielino Trail/Access Road are properly protected for the duration of construction activities. The City shall install temporary protective barriers in the form of concrete k-rails along the decorative railings of Bridge No. 2 on both sides of the road to protect the railings from further deterioration and damage from vehicles. The concrete k-rails shall be removed once the Project is completed leaving Bridge No. 2 intact. The concrete k-rails shall be installed parallel to the Bridge's existing baluster railings, with approximately 2 feet of separation between the k-rail and the resource. The k-rails shall be positioned to ensure that the Bridge railings are protected from daily construction traffic. The k-rails shall not be permanently attached to the bridge. All arroyo stone wall features adjacent to the Gabrielino Trail/Access Road shall be protected by concrete k-rails wherever feasible; however, in areas where k-rails would create an impassable or bottleneck situation for vehicles, the City shall utilize other reasonable protections, including cones and flagging, to ensure that the arroyo stone walls are not inadvertently damaged during construction vehicle movement and equipment transport. The plans for the temporary barriers shall be reviewed by a qualified architectural historian prior to Project implementation. In order to ensure that the bridge and stone walls are adequately protected during Project activities, the City shall ensure completion of pre-construction and post-construction surveys by a qualified historic preservation consultant to ensure that adverse effects or significant impacts have not occurred to Bridge No. 2. If the pre-construction survey identifies deficiencies in the protections for Bridge No. 2 or the stone walls, recommendations for additional physical barriers or visual warnings shall be provided and implemented prior to initiation of construction activities. The installation/construction methodology and post-construction survey shall be submitted to the City of Pasadena Department of Planning – Historic Preservation for review and approval.

MM-CUL-3 Prior to commencement of Project construction activities that would require equipment staging at the Behner Water Treatment Plant (WTP), the City shall ensure that the exterior of the WTP building

is adequately protected from equipment and vehicle staging activities. The northwest and southwest exterior elevations of the WTP shall, at a minimum, be protected by construction fencing and signage to ensure that none of the major exterior character-defining features of the building are inadvertently damaged. Fencing shall be placed at a minimum distance of five (5) feet from the exterior of the building, and crews working in the immediate vicinity should be alerted to the presence of an historical resource and instructed to avoid it. The City shall ensure that Project-related equipment and materials are not in contact with the exterior or the building, including absolute avoidance of leaning materials and equipment against exterior walls. The temporary fencing, signage, and barriers shall be removed at the conclusion of construction activities.

MM CUL-4

Prior to commencement of earthmoving activities, the City shall retain a qualified Archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology. The Archaeologist shall be present at the pre-grade conference; shall establish procedures for archaeological resource surveillance; and shall establish, in cooperation with the Contractor, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate. At a minimum, in the event archaeological resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist can evaluate the significance of the find and determine whether or not additional study is warranted. The Archaeologist shall first determine whether it is a "unique archaeological resource" pursuant to the California Environmental Quality Act (CEQA, i.e., Section 21083.2[g] of the California Public Resources Code) or a "historical resource" pursuant to Section 15064.5(a) of the State CEQA Guidelines. If the archaeological resource is determined to be a "unique archaeological resource" or a "historical resource", the Archaeologist shall formulate a mitigation plan in consultation with the City of Pasadena that satisfies the requirements of the above-referenced sections. The Archaeologist shall prepare a report of the results of any study prepared as part of a testing or mitigation plan, following guidelines of the California Office of Historic Preservation, and s/he shall record the site and submit the recordation form to the City of Pasadena and the California Historic Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Work may proceed in other areas of the site, subject to the direction of the Archaeologist.

MM-PALEO-1

Prior to commencement of any grading activity on-site, the City shall retain a qualified Paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be consistent with the SVP (2010) guidelines. Minimum requirements to be set forth in the PRIMP include: (1) attendance at the preconstruction meeting and worker environmental awareness training, where monitoring is required within the proposed Project site based on construction plans and/or geotechnical reports; (2) procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods, including sediment sampling for microvertebrate fossils, reporting, and collections management; (3) mandatory monitoring on-site during all rough grading and other significant ground-disturbing activities, including auguring in previously undisturbed, fine-grained Pleistocene alluvial deposits; (4) mandatory actions in the event that paleontological resources (e.g., fossils) are unearthed during grading, including the requirement for the paleontological monitor to temporarily halt and/or divert grading activity to allow recovery of paleontological resources, and roping/fencing off of the discovery with a 50-foot radius buffer; and (5) if resources are discovered, methods for coordination

between the qualified paleontologist and the City for appropriate exploration and/or salvage, as well as final disposition of the resources in an accredited institution or museum, such as the Natural History Museum of Los Angeles County.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

iv. Supporting Explanation

The following historical resources/historic properties were identified within the Project APE as a result of the property significance evaluations: John L. Behner Water Treatment Plant, Bridge No. 2, and Bridge No. 3. During construction activities, the Behner WTP adjacent to Area 3 would be used for temporary construction materials and equipment staging. The Behner WTP appears eligible under NRHP/CRHR Criteria C/3 at local level, and City Criterion 2c (3S/3CS/5S3) and is considered an historical resource under CEQA/historic property under Section 106 of the NHPA. Short-term construction activities have the potential to inadvertently damage the Behner WTP by construction equipment and materials staging in proximity to the building. Therefore, MM-CUL-3 is required. MM-CUL-3 requires protection from equipment staging activities, vehicle staging activities, and fence placement for the exterior of the Behner WTP. With incorporation of MM-CUL-3, potential short-term impacts to Behner WTP would be less than significant. (Draft EIR, p. 4.3-22 through 4.3-35)

The potential of encountering and impacting unknown archaeological resources during Project implementation is low; however, it is always possible that unanticipated discoveries could be encountered during ground-disturbing activities associated with the proposed Project. If such unanticipated discoveries were encountered, impacts to encountered resources could be potentially significant. However, with implementation of MM-CUL-4, which requires that all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, can evaluate the significance of the find, potentially significant impacts to archaeological resources would be reduced to less-than-significant levels. With incorporation of MM-CUL-4, the Project's potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 would be reduced to a level less than significant. (Draft EIR, p. 4.3-35 through 4.3-36)

No paleontological resources were identified within the proposed Project site as a result of the institutional records search or desktop geological review. The portions of Areas 2 and 3 underlain by Holocene gravel deposits (within the Arroyo Seco Drainage) have low paleontological sensitivity increasing to moderate or high sensitivity with depth, and the Pleistocene alluvial fan deposits within the northeastern portion of the Area 3 have moderate to high paleontological sensitivity. If intact paleontological resources are located onsite, ground-disturbing activities associated with construction of the proposed Project, such as earthwork/excavation and trenching for pipeline connections, have the potential to destroy a unique paleontological resource on site. As such, the proposed Project site is considered to be potentially sensitive for paleontological resources, and without mitigation, the potential damage to paleontological resources during construction associated with the proposed Project is considered a significant impact. Given the proximity of past fossil discoveries in the surrounding area within Pleistocene alluvial deposits, the proposed Project site is highly sensitive for supporting paleontological resources below the depth of fill and weathered, Pleistocene alluvial deposits. With implementation of MM-PALEO-1, which requires preparation of a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project, the proposed Project's potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature would be reduced to less than significant. (Draft EIR, p. 4.3-36 through 4.3-37)

Cumulative Impacts

Previously Approved Components of Arroyo Seco Canyon Project (ASCP). For the cumulative project, construction activities in Area 1 would only involve the use of Bridge No. 3 during short-term construction activities, likely at the same time as the proposed Project. Temporary placement of the bridge overlay was not determined to result in a significant impact, as described above. Therefore, the potential for both the proposed Project and this cumulative project to use the Bridge No. 3 at the same time would not result in cumulatively considerable impacts. The proposed Project's mitigation (MM-CUL-1) for Bridge No. 2, which is also an historical resource for the purposes of CEQA, requires placement of temporary k-rails, or other feasible protections, along the balustrade section of the bridge to protect it from vehicle and equipment damage. As long as the protective rails Bridge No. 2 are removed at the end of the proposed Project, as required by the proposed mitigation, there would not be cumulative impacts to Bridge No. 2 either. MM-CUL-3 has protections for Behner WTP during construction activities, which would reduce potential cumulative impacts to this structure. (Draft EIR, p. 4.3-37 through 4.3-38)

Devil's Gate Reservoir Sediment Removal and Management Project. This cumulative project proposes to remove sediment and restore habitat at the Devil's Gate Reservoir and not upstream where historical resources pursuant to §15064.5 have been identified by the proposed Project, and no upstream issues were identified. Therefore, no cumulative impacts to historical resources pursuant to §15064.5 are expected from this cumulative project. (Draft EIR, p. 4.3-38)

Oak Grove Area Improvements (OGAI) Project. Potential impacts from the OGAI Project to any evaluated historical resources identified in this EIR (i.e. Bridge No. 2, Bridge No. 3, Behner WTP) would only potentially affect their integrity of setting. Because this cumulative project would be visually removed and physically distant from all historical resources pursuant to §15064.5 identified for the proposed Project, there would be no impacts to the settings of these identified historical resources. Therefore, no cumulative impacts to historical resources pursuant to §15064.5 are expected from this cumulative project. (Draft EIR, p. 4.3-38)

LACFCD Pump back/Intake at Devil's Gate to Eaton Canyon. Potential impacts to historical resources would only potentially affect their integrity of setting. If the cumulative project were to be implemented, holding water in the Devil's Gate Reservoir and pumping the water to the spreading basins would not impact the settings of any nearby historical resources. Therefore, no cumulative impacts to historical resources pursuant to §15064.5 are expected from this project. (Draft EIR, p. 4.3-38)

Explorer Groundwater Well. Because the Behner WTP building appears eligible, it is considered an historical resource pursuant to §15064.5. Cumulative impacts could be mitigated provided that the renovation of Behner WTP to augment the water treatment capacity under this cumulative project adheres to Secretary of Interior Standards for Rehabilitation. However, if the proposed changes would occur on the building's interior and would not impact any of the building's exterior character-defining features, the cumulative project would likely result in a less than significant impacts to historical resources. Therefore, this cumulative project has the potential to result in impacts to the Behner WTP historical resource pursuant to §15064.5 if not adequately mitigated. However, since the proposed Project would not result in long-term impacts to Behner WTP, and mitigation would adequately address any short-term impacts from staging, the proposed Project would not result in cumulatively considerable impacts to Behner WTP. (Draft EIR, p. 4.3-39)

Cumulative Impacts for Archaeology and Paleontological. Despite the site-specific nature of the resources, in the event that unknown or undocumented archaeological resources are discovered, implementation of MM-CUL-1 would reduce the potential for cumulative impacts. Additionally, it is anticipated that cultural resources that are potentially affected by related projects would also be subject to the same requirements of CEQA as the proposed

Project and any impacts would be mitigated, as applicable. These determinations would be made on a case-by-case basis, and the effects of cumulative development on cultural resources would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. The paleontological impacts are specific to that site and its users and would not be in common or contribute to (or shared with, in an additive sense) the paleontological impacts on other project sites. Cumulative paleontological impacts related to nearby cumulative projects in the area that involve ground disturbance would require site-specific paleontological analyses. If potential impacts would occur, recommendations would be required to mitigate any potential effects related to paleontological resources, in accordance with CEQA. Therefore, with MM-PALEO-1, the Project's contribution to paleontological impacts would not be cumulatively significant. Therefore, cumulative impacts are considered to be less than significant. (Draft EIR, p. 4.3-39)

h) Noise

i. Potential Impacts Evaluated

- Would the project result in 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? (Draft EIR, p. 4.6-9)

ii. Proposed Mitigation

MM-NOI-1 The City and/or their Construction Contractor shall implement the following noise reduction measures during all construction activities:

- Equip all construction equipment (fixed or mobile) with properly operating and maintained mufflers, consistent with or exceeding manufacturers' standards.
- Ensure that construction equipment engine enclosures and covers as provided by manufacturers shall be in place during operation.
- Place all stationary construction equipment so that the equipment is as far as feasible from noise-sensitive receptors and so that the emitted noise is directed away from the noise-sensitive receptors.
- Locate equipment and materials staging in areas that will create the greatest distance between staging area noise sources and noise-sensitive receptors during Project construction.
- Ensure that construction equipment is shut down when not in use.
- Limit haul truck deliveries to the same hours specified for the operation of construction equipment.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

iv. Supporting Explanation

Construction activities would require the use of standard construction equipment such as loaders, dozers, backhoes, dump trucks, graders, pumps, rollers, and cranes. The nearest sensitive receptors to Area 2 are the residential land uses approximately 800 feet to the east in Altadena, part of unincorporated Los Angeles County, the USFS compound approximately 870 feet to the northwest in Pasadena, and residential land uses approximately 1,700 feet to the west in the City of La Cañada Flintridge. The nearest sensitive receptors to Area 3 are the residential land uses approximately 250 feet to the east in Altadena and in Pasadena. Whereas the Area 2 active Project construction area is quite small, the construction area constituting Area 3 is relatively large. While the nearest work within Area 3 would take place within 250 feet of the nearest residences, construction activities would more typically take place approximately 400 feet from the nearest residences.

MM-NOI-1 would be incorporated into the Project in order to further reduce noise from construction within Area 3 and to support Policies 7b and 7c of the Pasadena Comprehensive General Plan's Noise Element. MM-NOI-1 specifies noise-control measures to minimize noise effects upon sensitive receptors. In addition, the Project would be conducted in accordance with the City's Municipal Code requirements regarding limitations on noise-generating construction activities to the specified hours. Implementation of MM-NOI-1 and compliance with applicable municipal code restrictions related to construction activities would ensure that short-term construction noise generated by on-site construction activity would not result in substantial temporary increases in ambient noise levels in the vicinity of the Project in excess of standards established. (Draft EIR, p. 4.6-9 through 4.6-13)

The Project would result in local, short-term increases in roadway noise as a result of construction traffic. Project-related traffic would include workers commuting to and from Areas 2 and 3; vendors bringing materials; and haul trucks removing demolished structural materials, vegetative materials, and excavated soils from the Project site, as well as trucks entering the Project area to deliver materials, concrete, etc. Construction traffic, including haul/dump trucks related to construction activities, would not result in 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. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.6-15 through 4.6-16)

PWP's future schedule of operation and maintenance activities for Project-related facilities would not substantively differ from the current maintenance routine and procedures. No long-term operational noise or vibration from traffic would result. At Area 2, mechanical equipment noise would be infrequent and relatively low in noise level, and therefore would result in a less than significant noise impact. At Area 3, no long-term operational noise or vibration from mobile equipment or stationary machinery would result. As such, the Project would not result in generation of a substantial 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. Impacts would be less than significant and no mitigation is required. (Draft EIR, p. 4.6-16)

Cumulative Impacts

On-Site Construction Noise. The analysis of on-site construction noise in the Draft EIR determined that at noise-sensitive areas adjacent to Area 3 (the portion of the Project site nearest to the Devil's Gate project), the highest construction noise levels at the nearby residences are predicted to occur during the demolition phase and grading-excavation phases, when noise levels are estimated to be approximately 67 dBA Leq and 68 dBA Leq, respectively, when construction occurs near the eastern Project boundary. These noise levels were below the limits set by the City and County Code requirements and were less than significant. MM-NOI-1 would be implemented to further reduce noise from construction within Area 3 and to support Policies 7b and 7c of the Pasadena Comprehensive General Plan's Noise Element. Therefore, it is unlikely that construction noise from the two projects would combine in a measurable fashion at nearby noise-sensitive receivers, located approximately 250 feet or more further to the

east (at 750 feet from the Devil's Gate work, the noise level would be diminished by approximately 10 dB compared to the same noise level at 250 feet). Therefore, with implementation of MM-NOI-1 and compliance with applicable municipal code restrictions related to construction activities for the Project and cumulative projects, short-term construction noise generated by on-site construction activity would not result in cumulatively considerable substantial temporary increases 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. (Draft EIR, p. 4.6-18)

Off-Site Roadway Construction Noise. The portion of the Project's construction route that would be in proximity to and partially coincident with the Devil's Gate project is limited to the area of North Windsor Avenue at Oak Grove Drive and adjacent to the I-210 freeway. The predicted noise level increase in this area would be 1 dB or less. Similarly, the predicted noise level increase in this area from the Devil's Gate project is 0 dB. Thus, while individual truck pass-by noise would be clearly audible to nearby noise-sensitive receivers located near North Windsor Avenue and Oak Grove Drive, the cumulative increase would be negligible, less than significant and not cumulatively considerable. (Draft EIR, p. 4.6-19)

i) Recreation

i. Potential Impacts Evaluated

- 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? (Draft EIR, p. 4.7-11)

ii. Proposed Mitigation

MM-REC-1 Prior to the closure of recreational trails for public use, the City of Pasadena shall post signs providing at least one week of advanced notice of the dates and times of planned trail closures at the following locations:

- Intersection of Ventura Street and Windsor Avenue
- Sunset Overlook
- Altadena Crest Trail (adjacent to the North Arroyo Boulevard)
- Arroyo Seco Trail
- West Rim Trail/East Rim Trail

In addition to the closure notice signage, the City shall provide the locations of nearby trails and recreational facilities in the surrounding area that would be open for public use at the times when the trails are closed. This information shall also be posted on the City's Parks, Recreation and Community Services website.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

iv. Supporting Explanation

The proposed Project involves construction activity and facility improvements in Areas 2 and 3, as well as construction truck traffic along portions of the Gabrielino Trail/Access Road. During the Project's construction activities, North Arroyo Boulevard (Gabrielino Trail/Access Road) would be made available for construction-related vehicles. North Arroyo Boulevard would provide vehicular access to the Behner Water Treatment Plant (WTP), the northernmost portion of Area 3 near the JPL Bridge, and northward along the Gabrielino Trail/Access Road to Area 2. Although Project construction would result in temporary restricted access to portions of existing recreational trails, the Project would not substantially increase use of other existing parks or recreation facilities such that substantial physical deterioration of these facilities will occur or be accelerated. Impacts to existing trails as a result of Project construction would be temporary, and upon completion of construction activities, all temporary fencing, flagging, signage, soil stockpiles, and/or mobile and stationary construction equipment would be removed from Areas 2 and 3. Although substantial impacts to recreational facilities are not anticipated; implementation of MM-REC-1 would ensure adequate notification to the public of trail closures due to short-term Project construction impacts. Therefore, impacts would be less than significant with mitigation incorporated. (Draft EIR, p. 4.7-11 through 4.7-13)

Impacts to recreational uses are not anticipated during the ongoing maintenance of the diversion and intake structures in Area 2 or the cleaning of the spreading basins in Area 3. Maintenance will be confined to areas that have previously been associated with ASCP facilities and would not permanently alter any existing trails or access roads. Once construction activities are complete, all temporary restricted access to the trails within Area 3 as a result of Project construction would be lifted, and all realigned trails would be operational. There would be no long-term impacts to recreational facilities as a result of the proposed Project, and therefore, no mitigation is required. (Draft EIR, p. 4.7-13)

Cumulative Impacts

Cumulative projects would not result in the construction of new residences or facilitate the development of residences and, therefore, would not result in increased population or the associated increased demand for neighborhood or regional parks or other recreational facilities. Although construction of cumulative projects, in addition to the proposed Project, could temporarily limit access or result in construction-related emissions, noise, dust, visual, and traffic impacts; recreational users may choose to visit other parks, trails or recreation facilities in the area that would remain accessible during construction of cumulative projects. It is anticipated that visitors would disperse throughout the area during construction of cumulative projects, and that there would not be a substantial increase in use of any one park or facility. In addition to the trails and recreational facilities in the immediate Project area, parks including Charles White Park, Loma Alta County Park, Angeles National Forest, Olberz Park, and Memorial Park, among others would be accessible during Project construction and construction of cumulative projects. Additionally, implementation of mitigation measure MM-REC-1 outlined above, would ensure that use of existing neighborhood and regional parks or other recreational facilities would not be increased in such a manner that substantial physical deterioration of the facility would occur or be accelerated. Therefore, as impacts to recreational uses as a result of the Project and cumulative project construction would be temporary, and surrounding recreational opportunities would remain accessible, and impacts would be less than cumulatively considerable. (Draft EIR, p. 4.7-14 through 4.7-15)

J) Transportation

i. Potential Impacts Evaluated

- Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? (Draft EIR, p. 4.8-5)

ii. Proposed Mitigation

- MM TRA-1** During the peak phase of construction activities (i.e. during the demolition phase requiring haul truck trips) in Area 3, all Construction Contractors shall schedule the arrival and departure of the sediment export haul trucks to be outside the AM peak hours of 7:30 AM to 8:30 AM and the PM peak hours of 4:30 PM to 5:30 PM.
- MM TRA-2** During construction activities in Areas 2 and 3, use of the North Arroyo Boulevard or Gabrielino Trail/Access Road by hikers, bicyclists and equestrians shall be limited or prohibited when temporary partial or full closures of the Gabrielino Trail/ Access Road, Explorer Road, hiking trails or maintenance roads is necessary. In addition to the requirements for notification set forth in the City's Supplements and Modifications to the Greenbook, flagpersons and/or other safety procedures shall be used as necessary to ensure the safety of recreational users.
- MM TRA-3** Prior to the start of construction, the City and/or their Construction Contractor shall provide written notice to the USFS and residences at the Ranger Station of the anticipated construction schedule, stating that access may be temporarily obstructed on an intermittent basis and providing a schedule of anticipated closures. In order to ensure that emergency vehicles would not be obstructed at any time, any temporary obstructions to the Gabrielino Trail/Access Road that could hinder emergency vehicular access shall be mobile and able to be removed from the roadway immediately upon notice from emergency responders.
- MM CUML-1** The City and/or their Construction Contractor shall coordinate with the Los Angeles County Department of Public Works and/or their contractor for the sediment removal activities at Devil's Gate Reservoir regarding the schedule of trucks to and from landfills that would require the use of Interstate 210 eastbound ramps/Arroyo Boulevard intersection. If it is determined that activities would overlap and Project traffic and cumulative traffic including the Devil's Gate project traffic would have vehicle queues at Caltrans facilities that exceed available storage lengths, then the City and/or their contractor shall implement construction vehicle/hauling restrictions that disallow the proposed Project's truck traffic during the AM and PM peak hours of 7:30 AM to 8:30 AM and 4:30 PM to 5:30 PM.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. (Draft EIR, p. 4.8-5)

iv. Supporting Explanation

The proposed Project would require construction activities that would involve the transport of workers to and from the Project site, as well as construction equipment and construction vehicles.

Area 2: Short-Term Construction Impacts. The proposed Project would generate less than 500 ADT, and hence would not require a traffic impact analysis per County of Los Angeles Department of Public Works (LACDPW) Transportation Impact Analysis Report Guidelines. Similarly, the City of Pasadena does not require analysis of construction traffic and considers any non-residential project which is expected to generate fewer than 300 ADT

exempt from conducting a transportation impact analysis. Therefore, no significant impacts to the roadway facilities due to short-term construction of Area 2 would occur. (Draft EIR, p. 4.8-6 through 4.8-7)

Area 3: Short-Term Construction Impacts. The peak phase of Area 3 constructions would cause an increase in the average daily traffic greater than 500 ADT. Although this threshold is applicable to long-term operational activities and not applicable to construction traffic, it is possible that roadway facilities could be impacted during approximately 10 days during construction in Area 3. MM-TRA-1 would reduce construction trips that could potentially increase congestion on freeways and arterial roadways during the peak hour. MM-TRA-1 would reduce traffic congestion associated with the 500 ADT during the peak phase of construction in Area 3. (Draft EIR, p. 4.8-7 through 4.8-10)

Impacts to Transit, Bicycles and Pedestrian Facilities. During construction of Area 2, there would be periods where sections of the trail would need to be partially or fully closed, mainly during excavations, construction of the new intake, trenching for the new intake service structure, and hauling in materials/equipment. The portion of Gabrielino Trail/Access Road along the construction zone may also need to be reduced in width for the duration of the construction period during work hours to allow for parked construction vehicles (e.g., pickup trucks). Temporary closure of the Gabrielino Trail/Access Road and any other public roads (e.g. Explorer Road) that may be impacted during short-term construction activities would be executed in a manner that ensured compliance with applicable plans and policies addressing the circulation system, including roadway, bicycle, and pedestrian facilities. The City will follow the Supplements and Modifications to the Greenbook regarding notifications to residents and businesses affected by the temporary closures of the Gabrielino Trail/Access Road. MM-TRA-2 requires use of flagpersons and/or other safety procedures to be used as necessary to ensure the safety of recreational users along the Gabrielino Trail/Access Road during construction activities that could involve partial road closures. (Draft EIR, p. 4.8-10 through 4.8-11)

Cumulative Impacts

Based on review of cumulative projects in the area, during construction of the proposed Project Areas 2 and 3, sediment removal activities at the Devil's Gate Reservoir and construction of the Explorer Groundwater Well would most likely be ongoing. Based on the queuing analysis of cumulative conditions provided above, the proposed Project would have a potentially significant queuing impact at the I-210 eastbound ramps/Arroyo Boulevard intersection. Therefore, the project would contribute to a cumulatively significant impact to the Caltrans ramp intersection during short-term construction of Area 3. Therefore MM-CUML-1 is proposed, which requires that the City shall coordinate with the contractor for Devil's Gate Reservoir to avoid potential queuing impacts at the I-210 eastbound ramps/Arroyo Boulevard intersection during peak phase of Area 3 construction under cumulative conditions. (Draft EIR, p. 4.8-11 through 4.8-19)

k) Tribal Cultural Resources

i. Potential Impacts Evaluated

- 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:
 - 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? (Draft EIR, p. 4.9-9)

ii. Proposed Mitigation

MM-TCR-1 Prior to commencement of any ground-disturbing activities, the City of Pasadena shall retain a Native American Monitor approved by the Gabrieleño Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill AB 52 (the “Tribe” or the “Consulting Tribe”). The Tribal monitor shall only be present on the Project site during the construction phases that involve ground-disturbing activities. Ground disturbing activities may include, but may not be limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the Project area. The Tribal Monitor shall complete daily monitoring logs that provide descriptions of the day’s activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when all ground-disturbing activities on the Project site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground disturbing activities at the Project site have little to no potential for impacting Tribal Cultural Resources. Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by Project activities shall be evaluated by the qualified archaeologist (as required in MM-CUL-4) and the Tribal Monitor approved by the Consulting Tribe. If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes.

MM-TCR-2 If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance shall immediately cease, and the county coroner shall be notified per Public Resources Code Section 5097.98, and Health & Safety Code Section 7050.5. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Work may continue on other parts of the Project site while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section 15064.5[f]). If a non-Native American resource is determined by the qualified archaeologist to constitute a “historical resource” or “unique archaeological resource,” time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and PRC Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

iii. Findings Pursuant to CEQA Guidelines Section 15091

Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

iv. Supporting Explanation

Pursuant to AB 52, the City sent notification letters on November 7, 2019, to two tribes that have requested notification of Pasadena projects. The Gabrieleño Band of Mission Indians – Kizh Nation requested formal consultation. Although no TCRs have been identified as present within the Project site as a result of the NAHC SLF and a review of the CRHR and local register, information gathered during tribal consultation demonstrates a potential for unknown subsurface TCRs to be impacted by the Project, which could result in a significant impact. Therefore, mitigation measures have been included to provide for tribal monitoring of ground disturbing activities (MM-TCR-1), and inadvertent discovery of TCRs (MM-TCR-2). Implementation of MM-TCR-1 and MM-TCR-2 would ensure that potential short-term construction impacts related to an unknown site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, would be reduced to a level less than significant. (Draft EIR, p. 4.9-9 through 4.9-10)

Cumulative Impacts

The cumulative impacts analysis on TCRs considers whether impacts of the proposed Project together with other projects identified within the vicinity of the Project site, when taken as a whole, substantially diminish the number of TCRs within the same or similar context. The Devil's Gate Sediment Removal Project is located to the south and west of the proposed Project site. Since the Devil's Gate project EIR was completed prior to the enactment of AB 52, no formal tribal consultation was conducted. However, the project EIR did include mitigation measures, including archaeological monitoring of native sediments, to address any potential impacts to known or unknown cultural resources. It is anticipated that TCRs that are potentially affected by related projects would also be subject to the same requirements of CEQA and AB 52 as the proposed Project and any impacts would be mitigated, as applicable. These determinations would be made on a case-by-case basis, and the effects of cumulative development on TCRs would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, the proposed Project would not cumulatively contribute to a significant impact associated with TCRs and impacts would be less than significant. (Draft EIR, p. 4.9-10)

V. Resolution Regarding Environmental Impacts Determined to be Significant and Unavoidable

The Hearing Officer finds that mitigation measures have been identified in the Final EIR to reduce the following potentially significant environmental impacts of the proposed Project to below a level of significance, with the exception of impacts to cultural resources, which would remain significant and unavoidable. For each environmental topic within this category, the discussion below begins with a delineation of the potential impacts evaluated in the EIR, as specifically related to that topic, along with page citations as to where in the Draft EIR the relevant discussion is found, and is followed by presentation of the mitigation measure(s) identified in the Draft EIR for that topic, and then provides an explanation of the substantial evidence in support of the EIR conclusion that the following impacts have been determined to fall within the "significant unavoidable impacts" category.

I) Cultural Resources

i. Potential Impacts Evaluated

- Would the project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5? (Draft EIR, p. 4.3-22)

ii. Proposed Mitigation

MM-CUL-2 Prior to construction completion, the City shall ensure preparation of Historic American Engineering Record (HAER) documentation for Bridge No. 3 in accordance with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. Documentation shall be completed by a qualified historic preservation professional who meets the Secretary of the Interior's Professional Qualifications Standards for architectural history. The documentation shall capture the physical description of the existing bridge with: 1) existing as-builts/drawings (where/if available); 2) a written narrative that includes a detailed history and architectural description of the bridge and a discussion of its historical significance; 3) photographs of the bridge with large format negatives to demonstrate its current condition; and 4) provide other photographs of the bridge prior to installation of the current overlay. Upon approval of the final HAER package, the City shall offer one original copy of the final HAER package to the City of Pasadena Historic Preservation Program, the South Central Coastal Information Center at California State University, Fullerton, and the Angeles National Forest Administrative Office.

Prior to project construction completion, the City shall conduct a review of the bridge overlay design on Bridge No. 3 and construction materials used in the bridge overlay to determine improvements that can be made to conform with the City's Arroyo Seco Design Guidelines. Examples of potential improvements include, but are not limited to, evaluation of appropriate paint colors that reflect the natural character of the Arroyo Seco, and replacement of components with more natural materials (e.g. wood, concrete, brick, arroyo stone piers, unpainted weathering steel or other natural materials, such as copper and wrought iron). The proposed design improvements shall be submitted to the City of Pasadena Department of Planning – Historic Preservation for review and approval.

iii. Findings Pursuant to CEQA Guidelines Section 15091

The above mitigation measures are feasible, are adopted, and will reduce the proposed Project's impacts to cultural resources. However, there are no feasible mitigation measures that would reduce impacts to Bridge No. 3 to a level below significant. Therefore, these impacts must be considered significant and unavoidable even after implementation of all feasible mitigation measures. Pursuant to Section 21081(a)(3) of the California Public Resources Code, as described in the Statement of Overriding Considerations, the City has determined that specific economic, legal, social, technological, or other considerations make infeasible the alternatives identified in the EIR, and the identified cultural (historic) impacts are thereby acceptable because of specific overriding considerations.

iv. Supporting Explanation

The structural overlay bridge installed in 2017 that spans the entire length of Bridge No. 3 is not in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties in consideration of its proposed permanency. As a potentially permanent design feature, the continued presence of the overlay structure on Bridge No. 3 is considered a significant impact to historical resources, as the overlay detracts from nearly all of its important character-defining features and introduces incompatible, highly visible, modern materials. It is anticipated that Bridge No. 3 will continue to deteriorate, and as a result, PWP will need to remove dangerous elements of the bridge (damaged joists, for example) and even partially or fully demolish the bridge to protect public safety as it continues to deteriorate. MM-CUL-2, which requires preparation of Historic American Engineering Record

(HAER) documentation for Bridge No. 3 in accordance with the Secretary of the Interior's Standards, and sharing documentation with the City of Pasadena, the SCCIC, and the Angeles National Forest, as well as implementing adjustments to bring the bridge overlay components into compliance with the Arroyo Seco Design Guidelines, to the extent feasible. Implementation of MM-CUL-2 would lessen impacts but would not reduce impacts to Bridge No. 3 below a level of significance. Therefore, impacts to cultural resources under CEQA are considered significant and unavoidable, even with implementation of MM-CUL-2. (Draft EIR, p. 4.3-33 through 4.3-34)

VI. Resolution Regarding Alternatives

The Hearing Officer declares that the City has considered and rejected as infeasible Alternatives (i.e., the Reduced Diversion with In-Stream Spreading Alternative, and the Consolidated Facility Below JPL Bridge Alternative) identified in the Final EIR as set forth herein. CEQA requires that an EIR describe and evaluate the comparative merits of a reasonable range of alternatives to a project, or to the location of a project, that: (1) would feasibly attain most of the project objectives but would avoid or substantially lessen any significant impacts of the project, and (2) may be feasibly accomplished in a successful manner within a reasonable period of time considering the economic, environmental, social and technological factors involved. An EIR does not need to address alternatives that are not feasible, and the consideration of alternatives is to be judged against a rule of reason.

The lead agency is required to identify the environmentally superior alternative, but is not required to choose the environmentally superior for approval over the proposed Project if the alternative does not provide substantial advantages over the project (i.e., does not avoid or substantially reduce the significant impact(s) that would otherwise occur from the project), does not attain most of the project objectives, or is infeasible due to social, economic, technological or other considerations.

The Final EIR identifies objectives for the Project as follows (see Draft EIR, p. 3-12):

- Fully divert and utilize the City's 25 cubic feet per second surface water rights while operating in a manner objectively consistent with the Raymond Basin Judgment.
- Increase the capacity and functionality of the spreading basins to increase PWP's ability to recharge the groundwater basin, as envisioned by the 2011 Water Integrated Resources Plan with its recommendation to maximize the value of the groundwater basin and non-potable supplies.
- Provide opportunities for increased aquatic biological functions within the Arroyo Seco by: (1) protecting fish and eliminating the unimpeded passage of stream flows that could carry aquatic animals into the conveyance system, and (2) reducing existing impediments to fish passage at the diversion weir structure.
- Increase PWP's ability to rely upon local water for its potable water supply to reduce reliance upon imported water supplies from the Metropolitan Water District of Southern California (MWD).

The alternatives analyzed in the Draft EIR represent a reasonable range of alternatives based on the applicable provisions of the CEQA Guidelines.

a) Alternatives Considered But Rejected

The Hearing Officer finds that all the alternatives eliminated from further consideration in the Final EIR are infeasible, would not meet the basic project objectives, and/or would not reduce or avoid any of the significant effects of the proposed Project for the following reasons.

CEQA Guidelines Section 15126.6(c) recommends that an EIR identify alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts. With regard to feasibility, Section 15126.6(f)(1) states, “among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries, and whether the applicant can reasonably acquire, control, or otherwise have access to the alternative site.” Two alternatives for the Project were considered, but ultimately rejected from further analysis in the Draft EIR, consistent with Section 15126.6(c) of the CEQA Guidelines.

The Reduced Diversion with In-Stream Spreading Alternative considered either: (1) leaving the flows in the “natural stream” and allowing them to be naturally absorbed within the stream, with the City taking credit for up to the calculated natural stream percolation capacity, and diverting the remainder into the spreading basins to achieve the goal of more fully utilizing the City’s 25 cfs water rights; or (2) installing a low berm facility within the Arroyo Seco near Johnson Field that would “spread” the flows within the stream bed and slow water to allow percolation. Regarding the potential “natural stream” approach, it is important to note that the “natural stream” channels noted above would only comply with the Raymond Basin Judgment if these were “leading to such existing or future spreading grounds”, and do not include the existing natural stream in isolation. In the absence of direct use of the water (i.e. diversion into a treatment plant rather than infiltration into the groundwater basin), the only way for the City to earn pumping credit is by diversion from the natural stream, and for that diverted water to end up in spreading grounds. As such, leaving the flows in the “natural stream” is not an option set forth in the Raymond Basin Judgment and is therefore infeasible. This scenario would require a re-negotiation of the adjudicated agreement, as there is no ability in the Judgment for the City to take pumping credit for water left in the stream. The process for changing any of the components of the Judgment would require legal action beginning with a petition to the Court. All parties to the Judgment would have an opportunity to remark, including on any other aspects of the Judgment. For these reasons, the City has been consistent in its rejection of this potential alternative in the past, and therefore has eliminated it as a potential alternative to the proposed Project.

The Consolidated Facility Below JPL Bridge Alternative includes relocating the diversion capabilities of the diversion weir and intake structure within Area 2 and the sedimentation function of the former settlement ponds in Area 1 to a consolidated facility downstream of the JPL Bridge. The consolidated facility would include a diversion structure and a sediment forebay to simplify sediment management and maintenance activities by replacing scattered diversion and sedimentation facilities, presently located within the Arroyo Seco Canyon and accessed by canyon roads, which are difficult to navigate and maintain, to a consolidated facility downstream of the mouth of the canyon. Although this alternative would satisfy the proposed Project Objectives, this alternative does not avoid any significant environmental impacts of the proposed Project and would increase the environmental impacts in comparison to the proposed Project. This potential alternative would create a new engineered facility within the Arroyo Seco where none currently exists, rather than replacement in-kind of an existing facility within largely the same footprint as the current facility. All environmental topics would have increased impacts, rather than reduced environmental impacts, which is contrary to the intent of an alternatives analysis pursuant to Section 15126.6(a) of the CEQA Guidelines. Additionally, creation of a new dam structure that would span the width of the Arroyo Seco would involve a more complex set of regulatory permitting requirements, not only for the construction but for the routine maintenance that would be required for operation of the project. Finally, the proposed Project’s only unavoidably significant environmental impact is related to impacts to the historic Bridge No. 3, and this potential alternative scenario would have the same impacts as the proposed Project thereon.

b) Alternative A – No Project/No Action

Under Alternative A, the proposed Project would not be implemented. The Areas 2 and 3 of the Project site would remain unchanged, and no development activity would occur. Operations and maintenance activities would continue to occur into the future, as in the current condition.

Alternative A would result in reduced environmental impacts to almost all environmental topics in the short-term because construction activity would not occur. Alternative A would also result in reductions to impacts associated with long-term Hydrology. However, Alternative A does not meet the Project objectives, including increasing groundwater recharge and enhancing local water supplies for more reliable water service, and would not avoid or reduce the Project's significant impact on historical resources. Additionally, the proposed Project would result in benefits to the topics of Biological Resources and Greenhouse Gas Emissions that would not occur under Alternative A, such that maintaining the current condition would be more impactful to the environment in the long-term to these two topics.

For CEQA purposes, this alternative is rejected because it would not meet any of the project objectives and it could potentially result in significant and unavoidable impacts to historical resources.

c) Alternative B – Redesigned Spreading Basins in Area 3

Under Alternative B, all activities proposed within Area 2 would continue to be implemented, as set forth in the proposed Project. The alternative design of Area 3 would mimic the primary design objectives and operational characteristics of the Project, including: use of a settling basin to facilitate removal of debris and sediment from water prior to conveyance to the spreading basins, use of a concrete flume to meter flow into the infiltration basins, and use of stepped basins with gravity flow interconnection pipes. This alternative would relocate some of the parking stalls from the future recreational parking lot located just south of the JPL Bridge to the eastern edge of Area 3 near the Explorer Well site to provide for the altered configuration of the spreading basin design. The relocated parking stalls would be intermittent angled along the Explorer Road.

The objective of Alternative B would be to provide an improved design with more appeal for recreational users by eliminating the rectangular shapes of the existing condition, as well as the proposed Project design, through use of curvilinear basin features that more closely resemble natural channel and stream functions. The recreational amenities would be further improved through the use of native, drought-tolerant landscape plantings around the basins. The Alternative B basin layout and landscaping would have the added benefit of enhancing the proposed trail network for pedestrians and equestrian usage, with incorporation of educational kiosks, benches, interpretive signage, and shade structures adjacent to the spreading basins along the proposed pedestrian trails/maintenance roads. Alternative B would replace the enclosed concrete sedimentation basin (Basin A) with an open settlement pond. Alternative B would also include a slight realignment of Explorer Road to reflect the more curvilinear contours of the spreading basins and to allow for the future Explorer Well site to be east of the recreational trail amenities. Relocating the well site to the east would make it less prominent when viewing the area from the Gabrielino Trail above.

Alternative B would result in similar short-term construction-related impacts when compared to the proposed Project for all environmental topics with the exception of a temporary increase in water supply for landscaping irrigation. For long-term operational impacts, all environmental factors would have similar impacts under Alternative B to the proposed Project. However, Alternative B would result in benefits to the environment that would not occur under the proposed Project. Alternative B would develop curvilinear grading contours at the spreading basins to facilitate a more naturalized appearance consistent with a park setting, improved recreational amenities, such as connective trails and interpretive signage, and natural native landscaping to enhance the recreational experience.

Alternative B would not increase any new long-term environmental impacts and would increase long-term benefits to Biological Resources and Recreation. However, Alternative B would not eliminate the significant unavoidable impact to cultural resources.

For CEQA purposes this alternative cannot be rejected because Alternative B would meet all of the project objectives, and impacts would be the same as those anticipated from the proposed Project with the exception of short-term impacts related to utilities and service systems. Alternative B would not eliminate the significant unavoidable impact to cultural resources, which would be same determination as the proposed Project. As such, Alternative B would be feasible to implement. **The City has determined Alternative B to be the preferred alternative.**

d) Alternative C – Historic Bridge Rehabilitation

Under Alternative C, all activities proposed within Areas 2 and 3 would continue to be implemented, as set forth in the proposed Project. Alternative C also includes the implementation of the recommendations of the Arroyo Seco Bridge (B3) Assessment Deterioration Comparison prepared by TJC Associates Inc. in 2018 (TJC 2018) as they relate to the reconstruction or replacement of primary structural features on historic Bridge No. 3, which is located within the Project's study area along the Gabrielino Trail/Access Road. The location of Bridge No. 3 is identified on Figure 2-4A within Section 2, Environmental Setting, of the Draft EIR. Alternative C would remove the bridge overlay deck on historic Bridge No. 3 and repair or replace the structural elements of the bridge in accordance with the U.S. Department of the Interior Standards for the Treatment of Historic Properties.

All of the primary structural elements of the bridge—specifically, the joists below the bridge deck, the heavy timber support element at mid-span, the A-frame trusses on the east and west sides of the bridge, and the steel elements of the bridge—are deteriorated and subject to fail, and would be replaced under Alternative C. The heavy timber mid-span member that is the primary structural element of the bridge appears to have significant bearing failure under the supported members. If the mid-span support continues to deteriorate and fail, catastrophic failure of the bridge will occur; therefore, replacement of the heavy timber mid-span support beam(s) would be a priority. Replacement of the center support member would require temporary supports to be placed in the Arroyo Seco to relieve the load on the beam while the deteriorated beam was replaced. Additionally, portions or all of the joists would be removed.

Alternative C would result in slightly increased short-term construction impacts to most environmental topics. For long-term impacts, Alternative C would not provide the protections related to wildfire preparedness as it pertains to the City's ability to accommodate firefighting equipment into and out of the Arroyo Seco Canyon and the Angeles National Forest and would result in increased long-term wildfire risks when compared to the proposed Project. However, this Alternative would eliminate the significant unavoidable impact related to historic resources and would be considered to be the environmentally superior alternative to the proposed Project.

For CEQA purposes this alternative cannot be rejected because it would meet all of the project objectives and it would result in slightly greater impacts to air quality, biological resources, cultural resources, hydrology and water quality, noise, recreation, transportation, tribal cultural resources, and wildfire. Alternative C would eliminate the significant and unavoidable impact anticipated under the proposed Project. As such, Alternative C would be feasible to implement.

VII. Resolution Regarding Significant Irreversible Environmental Changes

State CEQA Guidelines Section 15126.2(c) requires an EIR to discuss the significant irreversible environmental changes which would be caused by the proposed Project. Generally, an impact would occur under this category if, for example: (1) the project involved a large commitment of nonrenewable resources; (2) the primary and secondary impacts of the project would generally commit future generations to similar uses; (3) the project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and (4) the proposed consumption of resources are not justified (for example, results in wasteful use of resources).

Construction Materials Use

Fossil fuel would be used during construction activities in Area 2 and 3 and would include gasoline/diesel for construction equipment, material deliveries, demolition waste disposal, and construction crew travel. No natural gas is required. However, once construction activities cease, petroleum use from off-road equipment and transportation vehicles would not differ from the operations at the Project site in the current existing condition. Because of the short-term nature of construction and relatively small scale of the construction activities required for the Project, the petroleum consumption would be negligible when compared to California's daily total use. Project impacts related to consumption of nonrenewable resources are considered to be less than significant because the Project would not use unusual or wasteful amounts of energy or construction materials.

In addition to fossil fuel use, a variety of resource materials would be used during the construction process, including steel, wood, concrete, electrical wiring, and fabricated materials. Upon completion of the construction activities, the commitment of such materials is considered irreversible because it is unlikely that the facilities would ever be decommissioned, and if they were decommissioned in the future, it is unlikely that the materials would be reused. Construction and demolition (C&D) waste is required to be diverted from landfills by the CALGreen Code, which requires a minimum 50 percent of diversion; however, for the purposes of this analysis, the use of such resources is considered a permanent and irreversible use.

Construction materials used in Area 2 include the concrete, metal, and rocks for the diversion and intake structure as well as the engineered roughened channel. Additionally, concrete, cinderblocks, roofing materials, and electrical components and wiring would be used for the intake service building, which would house the electrical and hydraulic controls for the diversion structure. Construction materials used in Area 3 would include pipes and valves, as well as engineered fill materials (e.g. sands and gravel) to construct the bermed walls of the spreading basins.

Resources used for the Project would be typical of similar water infrastructure projects in the region and would require a relatively minimal amount of resources when compared to land use development projects with habitable structures. Therefore, although irretrievable commitments of resources would result from the proposed Project, such changes would be less than significant.

Irreversible changes may occur from environmental damage, such as spill or release of hazardous materials due to failure of human-made structures, or accidental fire resulting from mechanical or electrical failure. While there are many other types of accidents possible, those listed above represent the key sources for irreversible damage that can be associated with water infrastructure projects. Compliance with applicable state and local regulations, the proposed Project would not result in irreversible damage from environmental accidents associated with the Project. (Draft EIR, p. 5-11)

Operational Use of Resources

Once operational, the Area 2 components would consume more energy on a daily basis than is currently consumed, given the addition of the intake service building that would house the electrical and hydraulic controls for the diversion structure. A portion of the energy used would be provided by non-renewable sources, which would be an irreversible commitment of such resources.

The Pasadena Water and Power would service the Project, and the design of the proposed Project are all subject to regulations that are working to reduce the amount of non-renewable resources from development projects. The electrical demand associated with the Area 2 activities is a minor energy consumer compared to other local and regional users that have long-term operations.

No new employees are required for the long-term operation or maintenance of the Project components in Area 2. No operational changes would occur, and may be potentially reduced with the automation of the weir to control flows in the intake. Similarly, PWP's future schedule of maintenance activities would not substantively differ from the current maintenance routine and procedures. The long-term use of non-renewable fossil fuel resources would not be substantively different than in the current condition, and impacts would be less than significant. Therefore, the operation of the proposed Project would not be considered a significant irreversible environmental effect or cause irreversible environmental damage. (Draft EIR, p. 5-12)

VIII. Resolutions Regarding Growth-Inducing Impacts

State CEQA Guidelines Section 15126.2(d) requires an EIR to discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth inducement, however, is not considered necessarily detrimental, beneficial, or significant to the environment.

The proposed Project would not directly foster economic or population growth. The Project does not involve the construction of any habitable structures that could support any occupiable land uses; no commercial or residential activity would result from Project implementation. No new employees would be required for the long-term operation and maintenance of the proposed Project.

The proposed Project would not indirectly foster economic or population growth, or otherwise remove a barrier to growth. The proposed Project would facilitate the efficient use of water in the Arroyo Seco by allowing for the increased utilization of the City's surface water rights and reducing reliance upon imported water supplies from the MWD. The proposed Project would not change the sustainable yield of the groundwater basin or otherwise alter the anticipated water supply projections set forth in the City's Urban Water Management Plan (UWMP). Therefore, the Project would not increase the available water supply such that population growth could be indirectly induced. Because there would be no direct or indirect impact related to fostering economic or population growth, or otherwise remove a barrier to growth, there would be no cumulative impacts related to growth-inducing impacts.

Additionally, the Project would not propose any physical or regulatory changes that would remove a restriction to or encourage population growth in the Project area, such as regulatory changes including General Plan Amendments encouraging population growth, specific plan amendments, zone reclassifications, sewer or water annexations; Local Agency Formation Commission annexation; or other similar actions. The Project is intended to increase water supply reliability and water system resiliency through an increase in local water supplies and would not encourage housing growth or result in growth-inducing impacts. (Draft EIR, p. 5-12 through 5-13)

IX. Resolution Regarding Adoption of Mitigation Monitoring and Reporting Program

Pursuant to Public Resources Code Section 21081.6, the Hearing Officer hereby adopts the Mitigation Monitoring and Reporting Plan (“MMRP”) attached to this Resolution as Attachment 1, and incorporated herein. This MMRP includes all of the mitigation measures analyzed in the Draft EIR, which are applicable to both the proposed Project and the preferred Alternative B.

X. Resolution Regarding Custodian of Records

The documents and materials that constitute the record of proceedings on which these findings are based are located at the City of Pasadena, Planning & Community Development Department at 175 North Garfield Avenue, Pasadena, California 91101 and with the Director of Planning & Community Development, who serves as the custodian of these records.

XI. Resolution Regarding Notice of Determination

Staff is directed to file a Notice of Determination with the Clerk of the County of Los Angeles within five working days of final approval of Alternative B, as may be further modified by any conditions of approval imposed by the Hearing Officer.

Attachment 1

Mitigation Monitoring and Reporting Program



Mitigation Monitoring and Reporting Program Arroyo Seco Canyon Project Areas 2 and 3

**Modification to Conditional Use Permit No. 6222
State Clearinghouse No. 2014101022**

Prepared for:

City of Pasadena Department of Water and Power

150 South Los Robles Avenue, Suite 200
Pasadena CA 91101

Prepared by:

DUDEK

38 North Marengo Avenue
Pasadena, California 91101

December 2020

Mitigation Monitoring and Reporting Program

Section 15097 of the California Environmental Quality Act (CEQA) Guidelines requires that, whenever a public agency approves a project based on a mitigated negative declaration or an environmental impact report (EIR), the public agency shall establish a mitigation monitoring or reporting program to ensure that all adopted mitigation measures are implemented.

This mitigation monitoring and reporting program (MMRP) for the Arroyo Seco Canyon Project Areas 2 and 3 (proposed Project) has been prepared pursuant to CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations, Chapter 3, Sections 15074 and 15097). This MMRP is intended to be used by City of Pasadena staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the Draft EIR prepared for the proposed Project. A master copy of this MMRP shall be kept in the office of the City of Pasadena Department of Water and Power and shall be available for viewing upon request.

The Draft EIR for the proposed Project presents a detailed set of mitigation measures required for implementation. As noted above, the intent of the MMRP is to ensure the effective implementation and enforcement of all adopted mitigation measures. The MMRP includes all mitigation measures identified in the Draft EIR and, for each measure, the party responsible for implementation and implementation timing (see Table 1).

Table 1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
Mitigation Measures Identified in the Environmental Impact Report		
Biological Resources		
<p>MM-BIO-1: Prior to commencement of any earthmoving activities or the pre-construction staging of equipment on the Project site, the City shall develop a Preconstruction Survey and Relocation Plan for terrestrial reptiles, including the California newt, two-striped gartersnake, Southern California legless lizard, and coastal whiptail. Although considered to be extinct, Pasadena shrimp (<i>Syncares pasadenae</i>) will be added to the Plan as a focal species. The Preconstruction Survey and Relocation Plan shall be submitted to the California Department of Fish and Wildlife (CDFW) for review prior to any ground-disturbing activities within potentially occupied habitat.</p> <p>The Plan shall include at a minimum, the following: (1) protocols for pre-construction surveys to flush out and/or move identified special status wildlife within the study area, as feasible; (2) the timing, frequency, and locations where surveys should be conducted; (3) the habitat and conditions in the proposed relocation site(s); (4) the methods that would be used for trapping and relocating identified species; (5) protocols for documentation/recording of the species and number of animals relocated; and (6) protocols for notifying CDFW in the event that identified species cannot be relocated.</p> <p>The Plan shall require that a Biological Monitor be present during all vegetation clearing and ground disturbance activities within Area 2, as well as three times weekly until construction activities are completed. For Area 3, a Biological Monitor will be present during initial vegetation clearing and initial ground disturbance activities. The Biological Monitor shall be familiar with southwestern willow flycatcher and least Bell's vireo and shall conduct pre-clearing non-protocol surveys for this species while onsite. If a least Bell's vireo or other State of federally listed species is detected, work activity within 500 feet of the detected occupied habitat will be temporarily halted and the City will consult with the appropriate wildlife agencies. With authorization from these agencies, which may include a 'take' permit, the project will proceed in accordance with conditions developed in the consultation. Conditions will include avoidance and minimization measures to prevent or minimize impacts on the listed species(s) occurring on or adjacent to the site.</p> <p>The Plan shall require that any individual special-status terrestrial wildlife species observed within the study area during the pre-construction survey(s) shall be flushed out and/or</p>	<p>(1) City of Pasadena/PWP shall ensure the development of a Preconstruction Survey and Relocation Plan</p> <p>(2) Subsequently, City of Pasadena/PWP shall ensure the final documentation of any wildlife relocated during Project activities is provided to CDFW for confirmation that construction activities were executed in compliance with the Preconstruction Survey and Relocation Plan</p>	<p>(1) Prior to commencement of any earthmoving activities or the pre-construction staging of equipment on the Project site</p> <p>(2) Upon completion of final documentation of compliance with the Preconstruction Survey and Relocation Plan</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>moved out of harm's way to avoid direct impacts to these species, and if special-status species are detected, the Biological Monitor shall capture and relocate individuals to nearby undisturbed areas with suitable habitat outside of the construction area, but as close to their origin as possible. The final recordation/documentation of any wildlife relocated during Project activities shall be made available to CDFW for confirmation that construction activities were executed in compliance with the approved Preconstruction Survey and Relocation Plan.</p>		
<p>MM-BIO-2: Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code with methods approved by the California Department of Fish and Wildlife (CDFW) to protect active bird/raptor nests. To the maximum extent feasible, vegetation removal shall occur during the non-breeding season for nesting birds (generally late September to early March) and nesting raptors (generally early July to late January) to avoid impacts to nesting birds and raptors. If the Project requires that work be initiated during the breeding season for nesting birds (March 1–September 30) and nesting raptors (February 1–June 30), in order to avoid direct impacts on active nests, a pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 3 days prior to clearing of any vegetation and/or any work near existing structures (i.e., within 300 feet for nesting birds, 500 feet for southwestern willow flycatcher and least Bell's vireo, and within 500 feet for nesting raptors). If the Biologist does not find any active nests within or immediately adjacent to the impact areas, the vegetation clearing/construction work shall be allowed to proceed.</p> <p>If the Biologist finds an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified Biologist: (1) clearing limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting birds, 500 feet for southwestern willow flycatcher and least Bell's vireo, and 300–500 feet for nesting raptors), unless otherwise determined by a qualified Biologist and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if</p>	<p>City of Pasadena/PWP shall ensure that a qualified Biologist conducts surveys in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code</p>	<p>Nesting bird pre-construction survey shall be conducted by a qualified Biologist for nesting birds and/or raptors within 3 days prior to clearing of any vegetation and/or any work near existing structures</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>the Biologist determines that the proposed activity would not disturb the nest occupants. Construction can proceed when the qualified Biologist has determined that fledglings have left the nest or the nest has failed.</p>		
<p>MM-BIO-3: A CDFW-approved bat biologist shall conduct a pre-construction bat habitat assessment within the Project and within a 500-foot buffer. The assessment will consist of a daytime roost assessment to identify any sign indicating presence (i.e. guano, staining, etc.), acoustic monitoring for nighttime bat emergence and foraging activity, and visual emergence observations. Potential for roosting shall be categorized by 1) potential for solitary roost sites, 2) potential for colonial roost sites (10 bats or more). If the potential for colonial roosting is determined, those trees shall not be removed during the bat maternity roost season (March 1 – July 31). Trees potentially supporting colonial roosts outside of maternity roost season, and trees potentially supporting solitary roosts may be removed via a two-step removal process, whereby some level of disturbance (such as trimming of lower branches) (at the direction of Biological Monitor) is applied to the tree on day one to allow bats to escape during the darker hours, and the roost tree shall be removed two days later (i.e., there shall be no less or more than two nights between initial disturbance and the grading or tree removal). When feasible, trees will be dropped slowly and a Biological Monitor will monitor the activity. If buildings are determined to be occupied, one-way exclusionary devices will be placed over bat access points and left in place for two nights prior to building removal.</p>	<p>City of Pasadena/PWP shall ensure that a qualified bat biologist conducts a bat habitat assessment within the Project and within a 500-foot buffer</p>	<p>Within 3 days prior to clearing of any vegetation and/or any work near existing structures.</p>
<p>MM-BIO-4: Direct impacts to sensitive vegetation communities (white alder–California sycamore woodland association and California sycamore woodlands alliance) shall be mitigated through a combination of on-site and/or off-site measures. Mitigation for impacts to sensitive vegetation communities shall consider and overlap with compensation for jurisdictional waters (MM-BIO-6) since the sensitive vegetation is associated with the jurisdictional limits of Arroyo Seco. Mitigation for direct impacts to sensitive vegetation communities shall be implemented through on-site creation/enhancement, program funding, mitigation bank credits, and/or creation/enhancement of native vegetation communities on City lands. Mitigation acreages shall be implemented as shown in the Table below.</p>	<p>(1) City of Pasadena/PWP shall ensure that a qualified biologist prepares a Habitat Mitigation and Monitoring Plan (2) City of Pasadena/PWP shall ensure that the HMMP is submitted to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>	<p>(1) Prior to the issuance of a ground disturbing activities or the pre-construction staging of equipment on the Project site (2) Prior to the issuance of a ground disturbing activities or the pre-construction staging of equipment on the Project site</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing																
<table><thead><tr><th>Sensitive Vegetation Community</th><th>Direct Impacts (acres)</th><th>Mitigation Ratio</th><th>Mitigation (acres)</th></tr></thead><tbody><tr><td>white alder – California sycamore woodland association</td><td>0.47</td><td>3:1</td><td>1.41</td></tr><tr><td>California sycamore woodlands alliance</td><td>0.04</td><td>3:1</td><td>0.12</td></tr><tr><td>Totals:</td><td>0.51</td><td>—</td><td>1.53</td></tr></tbody></table> <p>On-site Mitigation. White alder-California sycamore woodland association and California sycamore woodlands alliance could be established within Area 1 (previously approved components of the Arroyo Seco Canyon Project), and California sycamore woodlands alliance could be established in the upland portions surrounding the spreading basins in Area 3. Prior to the issuance of a grading permit or any earthwork on the Project site, PWP shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) for habitat enhancement and creation activities. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. The HMMP shall include restoration of the following habitats:</p> <p>Riparian Woodlands. Impacted areas of (white alder–California sycamore woodland association and California sycamore woodlands alliance) shall be created/restored within and adjacent to the same on-site areas that the woodland currently existed prior to Project implementation, as well as other areas deemed to have appropriate soils and topography for successful establishment. Understory areas shall be revegetated with a diversity of locally collected seeds. Temporary irrigation shall be established and maintained, with irrigation suspensions in times of rainfall. Successful establishment of the woodland shall be determined only after removal of irrigation system and confirmed ability of the woodland to survive in the absence of irrigation.</p> <p>It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>	Sensitive Vegetation Community	Direct Impacts (acres)	Mitigation Ratio	Mitigation (acres)	white alder – California sycamore woodland association	0.47	3:1	1.41	California sycamore woodlands alliance	0.04	3:1	0.12	Totals:	0.51	—	1.53		
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MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>Off-site Mitigation. If mitigation is implemented through mitigation program funding and/or mitigation bank credits, the City shall work with CDFW, USACE, and RWQCB to ensure the mitigation program funding and/or mitigation bank credits are appropriated to offset permanent impacts. If program funding is utilized, it would be accompanied by a specific work plan identifying habitat/jurisdictional resource acreage and/or functional gains. Mitigation lands shall be comprised of similar or higher quality riparian woodland and preferably located in the vicinity of the site or watershed. Off-site mitigation lands will be protected in perpetuity under a conservation easement, with a non-wasting endowment and manager/easement holder for long-term management.</p> <p>If mitigation is implemented through offsite enhancement of City-owned lands, the City shall prepare a HMMP that details the location and existing conditions of the offsite lands. The HMMP shall at a minimum include a feasible implementation structure, salvage/seedling details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>		
<p>MM-BIO-5: To prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence) prior to ground disturbance activities. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits. A qualified biologist shall be present during initial ground-disturbing activities within the Project site to ensure that Project activities stay within the demarcated limits. The integrity of the demarcation limits will be in accordance with the monitoring required in MM-BIO-1.</p> <p>Additionally, all hollow posts and pipes associated with new facilities in Areas 2 and 3 shall be capped to prevent wildlife entrapment and mortality. Metal fence stakes used on the Project site shall be plugged with bolts or other plugging materials to avoid impacts to raptor talons. Additionally, the City shall ensure the prohibition of the use of rodenticides throughout all construction activities.</p>	<p>(1) City of Pasadena/PWP shall ensure that a qualified biologist conducts flagging of disturbance limits</p> <p>(2) City of Pasadena/PWP shall ensure that a qualified biologist conducts the required monitoring</p>	<p>(1) Prior to commencement of any ground disturbing activities or the pre-construction staging of equipment on the Project site</p> <p>(2) Ongoing during construction in compliance with Preconstruction Survey and Relocation Plan per MM-BIO-1</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing																				
<p>MM-BIO-6: Mitigation for direct impacts to jurisdictional waters shall be implemented through on-site enhancement of remaining jurisdictional waters and/or off-site acquisition, program funding, and/or mitigation bank credits. Mitigation ratios for each type of jurisdictional waters is shown in the Table below. Mitigation for temporary and permanent impacts to jurisdictional wetlands and waters shall consider and overlap with compensation for sensitive vegetation communities (MM-BIO-4).</p> <table><tr><th>Jurisdictional Waters Type</th><th>Direct Impacts (acres)</th><th>Mitigation Ratio</th><th>Mitigation (acres)^a</th></tr><tr><td>USACE waters of the United States</td><td>0.20</td><td>1:1</td><td>0.20</td></tr><tr><td>RWQCB waters of the state</td><td>2.58</td><td>1:1</td><td>2.58</td></tr><tr><td>CDFW streambed and bank, with riparian vegetation^b</td><td>0.49</td><td>3:1</td><td>1.47</td></tr><tr><td>CDFW streambed and bank, with non-riparian habitat^c</td><td>2.41</td><td>1:1</td><td>2.41</td></tr></table> <p>Notes:</p> <ul style="list-style-type: none">a. Mitigation areas for each jurisdictional type may overlapb. white alder–California sycamore woodland (0.48 acres) and coast live oak woodland (<0.01 acres)c. California sagebrush–California buckwheat–laurel sumac scrub (<0.001 acres); urban/developed (0.03 acres); disturbed habitat (2.38 acres); laurel sumac scrub (<0.01 acres) <p>On-site Mitigation. Jurisdictional waters and associated vegetation could be established within Area 1 (previously approved components of the Arroyo Seco Canyon Project). Prior to the issuance of a grading permit or any earthwork on the Project site, PWP shall prepare a HMMP for habitat enhancement and creation activities. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. The HMMP shall include restoration of the following habitats:</p> <p>Riparian Woodlands. Impacted areas of (white alder–California sycamore woodland association and coast live oak woodland) shall be created/restored within and adjacent to</p>	Jurisdictional Waters Type	Direct Impacts (acres)	Mitigation Ratio	Mitigation (acres) ^a	USACE waters of the United States	0.20	1:1	0.20	RWQCB waters of the state	2.58	1:1	2.58	CDFW streambed and bank, with riparian vegetation ^b	0.49	3:1	1.47	CDFW streambed and bank, with non-riparian habitat ^c	2.41	1:1	2.41	<p>(1) City of Pasadena/PWP shall ensure that a qualified biologist prepares a Habitat Mitigation and Monitoring Plan</p> <p>(2) City of Pasadena/PWP shall ensure that the HMMP is submitted to CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>	<p>(1) Prior to the issuance of a ground disturbing activities or the pre-construction staging of equipment on the Project site</p> <p>(2) Prior to the issuance of a ground disturbing activities or the pre-construction staging of equipment on the Project site</p>
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MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>the same on-site areas that the woodland currently existed prior to Project implementation, as well as other areas deemed to have appropriate soils and topography for successful establishment. Understory areas shall be revegetated with a diversity of locally collected seeds. Temporary irrigation shall be established and maintained, with irrigation suspensions in times of rainfall. Successful establishment of the woodland shall be determined only after removal of irrigation system and confirmed ability of the woodland to survive in the absence of irrigation.</p>		
<p>It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to the CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>		
<p>Off-site Mitigation. If mitigation is implemented through mitigation program funding and/or mitigation bank credits, the City shall work with the CDFW, USACE, and RWQCB to ensure the mitigation program funding and/or mitigation bank credits are appropriate to offset permanent impacts. If program funding is utilized, it would be accompanied by a specific work plan identifying habitat/jurisdictional resource acreage and/or functional gains. Mitigation lands shall be comprised of similar or higher quality riparian woodland and preferably located in the vicinity of the site or watershed. Off-site mitigation lands will be protected in perpetuity under a conservation easement, with a non-wasting endowment and manager/easement holder for long-term management.</p>		
<p>If mitigation is implemented through offsite enhancement of City-owned lands, the City shall prepare a HMMP that details the location and existing conditions of the offsite lands. The HMMP shall at a minimum include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, irrigation system and schedule, a monitoring schedule, performance standard of success, estimated costs, the implementation of a restrictive covenant on the land, long-term management of the habitat, and identification of responsible entities. It is anticipated that a one-time restoration effort followed by monitoring and invasive weed removal for a minimum of five (5) years would be required. The HMMP shall be submitted by the City to the CDFW, USACE, and RWQCB for review and comment, and revised to the satisfaction of the City and the three agencies.</p>		
<p>MM-BIO-7: Prior to the commencement of earthmoving within Area 2 for the demolition of the existing diversion/weir structure, the City shall develop a Native Resident and</p>	<p>City of Pasadena/PWP shall ensure that a qualified biologist prepares a</p>	<p>Prior to the issuance of a ground disturbing activities or the pre-</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>Migratory Fish Monitoring Plan (Monitoring Plan), in consultation with CDFW. This Monitoring Plan shall set forth annual monitoring requirements to determine if native fish species or migratory fish populations are present within an approximate 3,500-foot section of the stream (about 1,500 feet upstream of the diversion/weir structure to the abandoned headworks (Area 1) and 2,000 feet downstream to the JPL Bridge at the mouth of the canyon). The Monitoring Plan will include the results of the baseline conditions for fish, which shall be conducted prior to commencement of earthwork in Area 2 within the 3,500 section of the stream using the survey methodology described in the 2010 California Salmonid Stream Habitat Restoration Manual (4th Edition). Annual survey protocols shall be established to the satisfaction of CDFW and set forth in the Monitoring Plan. If the results of the annual surveys reveal a positive presence of native fish, the Monitoring Plan shall set forth thresholds for determining the permanency of the population, and whether or not connectivity both upstream and downstream of the diversion structure is appropriate and in the best interest of the long-term survival of an established native or migratory fish population, given hazards associated with stranding downstream. Until passage for steelhead is restored to the Arroyo Seco, the City shall implement a program to rescue fish between the diversion structure and the JPL Bridge. If rescue is determined to be ineffective or impractical, then the City shall modify its operations to accommodate passage. At such time as steelhead passage is restored, the City shall alter either the design of the diversion/weir structure, the operational methods of the diversion/weir structure, or both to satisfy Fish and Game Code Sections 5901 and 5937.</p>	<p>Native Resident and Migratory Fish Monitoring Plan that sets forth survey protocols satisfaction of CDFW.</p>	<p>construction staging of equipment on the Project site</p>
<p>MM-BIO-8: A qualified biologist shall be present during initial ground-disturbing activities within the Project site to ensure that Project activities stay within the demarcated limits, as required in MM-BIO-5. This qualified biologist shall identify the number of City-protected trees that are removed as a result of Project construction activities, as well as trees that would be encroached upon. This inventory of trees shall be used to determine an appropriate tree replacement program that shall be, at a minimum, consistent with the administrative guideline tree replacement matrix of the City's Tree Ordinance (Chapter 8.52 of the Pasadena Municipal Code), as it relates to tree replacement of protected trees.</p> <p>Trees within approximately 15 feet of proposed construction activity shall be temporarily fenced with chain-link fencing in accordance with the City's Tree Ordinance and Tree Protection Guidelines. The fencing shall be installed to the extent of the tree's dripline plus four (4) radial feet and be minimum six (6) feet high with an access gate of minimal width. The fenced area</p>	<p>(1) City of Pasadena/PWP shall ensure that a qualified biologist identifies City-protected trees</p> <p>(2) City of Pasadena/PWP shall ensure that a qualified biologist prepares tree mitigation per City's Tree Ordinance</p>	<p>(1) Upon completion of demarcation limits per MM-BIO-5</p> <p>(2) Upon determination of the final number/type of impacted trees</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>shall be considered the Tree Protection Zone (TPZ) unless proximate construction required temporary removal.</p> <p>All trees that have been substantially root pruned (30% or more of their root zone) during construction within the TPZ shall be monitored by an International Society of Arboriculture Certified arborist for the first five years after construction completion. The arborist shall submit an annual report, photograph each tree and compare tree health and condition to the original, pre-construction baseline. For trees that do not survive the five-year monitoring period, such trees shall be replaced in accordance with the requirements of this measure.</p> <p>For all trees that are identified for removal resulting from the proposed Project, such trees shall be inspected by a qualified arborist for contagious tree diseases, including but not limited to Polyphagous Shot Hole Borer, thousand canker fungus, and goldspotted oak borer. If contagious tree diseases are identified, the trees shall be treated using the best available management practices relevant for each tree disease observed prior to transporting the trees offsite.</p>		
Cultural Resources and Tribal Cultural Resources		
<p>MM-CUL-1: Prior to the commencement of construction vehicle and truck traffic along the Gabrielino Trail/Access Road north of the JPL Bridge, the City shall ensure that Bridge No. 2 and all identified arroyo stone wall features along the affected portions of the Gabrielino Trail/Access Road are properly protected for the duration of construction activities. The City shall install temporary protective barriers in the form of concrete k-rails along the decorative railings of Bridge No. 2 on both sides of the road to protect the railings from further deterioration and damage from vehicles. The concrete k-rails shall be removed once the Project is completed leaving Bridge No. 2 intact. The concrete k-rails shall be installed parallel to the Bridge's existing baluster railings, with approximately 2 feet of separation between the k-rail and the resource. The k-rails shall be positioned to ensure that the Bridge railings are protected from daily construction traffic. The k-rails shall not be permanently attached to the bridge. All arroyo stone wall features adjacent to the Gabrielino Trail/Access Road shall be protected by concrete k-rails wherever feasible; however, in areas where k-rails would create an impassable or bottleneck situation for vehicles, the City shall utilize other reasonable protections, including cones and flagging, to ensure that the arroyo stone walls are not inadvertently damaged during construction vehicle movement and equipment transport. The plans for the temporary barriers shall be reviewed by a qualified architectural historian prior to</p>	<p>(1) City of Pasadena/PWP shall ensure that plans for temporary barriers to protect all historic features duration of construction activities are reviewed by a qualified architectural historian</p> <p>(2) City of Pasadena/PWP shall ensure completion of pre-construction surveys by a qualified historic preservation</p> <p>(3) City of Pasadena/PWP shall ensure completion of post-construction surveys by a qualified historic preservation</p>	<p>(1) Prior to the commencement of construction vehicle and truck traffic along the Gabrielino Trail/Access Road north of the JPL Bridge</p> <p>(2) Prior to the commencement of construction vehicle and truck traffic along the Gabrielino Trail/Access Road north of the JPL Bridge</p> <p>(3) Upon completion of construction traffic along the Gabrielino Trail/Access</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>Project implementation. In order to ensure that the bridge and stone walls are adequately protected during Project activities, the City shall ensure completion of pre-construction and post-construction surveys by a qualified historic preservation consultant to ensure that adverse effects or significant impacts have not occurred to Bridge No. 2. If the pre-construction survey identifies deficiencies in the protections for Bridge No. 2 or the stone walls, recommendations for additional physical barriers or visual warnings shall be provided and implemented prior to initiation of construction activities. The installation/construction methodology and post-construction survey shall be submitted to the City of Pasadena Department of Planning – Historic Preservation for review and approval.</p>		<p>Road north of the JPL Bridge</p>
<p>MM-CUL-2: Prior to construction completion, the City shall ensure preparation of Historic American Engineering Record (HAER) documentation for Bridge No. 3 in accordance with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. Documentation shall be completed by a qualified historic preservation professional who meets the Secretary of the Interior's Professional Qualifications Standards for architectural history. The documentation shall capture the physical description of the existing bridge with: 1) existing as-builts/drawings (where/if available); 2) a written narrative that includes a detailed history and architectural description of the bridge and a discussion of its historical significance; 3) photographs of the bridge with large format negatives to demonstrate its current condition; and 4) provide other photographs of the bridge prior to installation of the current overlay. Upon approval of the final HAER package, the City shall offer one original copy of the final HAER package to the City of Pasadena Historic Preservation Program, the South Central Coastal Information Center at California State University, Fullerton, and the Angeles National Forest Administrative Office.</p> <p>Prior to project construction completion, the City shall conduct a review of the bridge overlay design on Bridge No. 3 and construction materials used in the bridge overlay to determine improvements that can be made to conform with the City's Arroyo Seco Design Guidelines. Examples of potential improvements include, but are not limited to, evaluation of appropriate paint colors that reflect the natural character of the Arroyo Seco, and replacement of components with more natural materials (e.g. wood, concrete, brick, arroyo stone piers, unpainted weathering steel or other natural materials, such as copper and wrought iron). The proposed design improvements shall be submitted to the City of Pasadena Department of Planning – Historic Preservation for review and approval.</p>	<p>(1) City of Pasadena/PWP shall ensure completion of a Historic American Engineering Record (HAER) documentation for Bridge No. 3.</p> <p>(2) City of Pasadena/PWP shall ensure completion of a review of the bridge overlay design on Bridge No. 3 for compliance with the City's Arroyo Seco Design Guidelines</p>	<p>(1) Prior to the commencement of construction vehicle and truck traffic along the Gabrielino Trail/Access Road north of the JPL Bridge</p> <p>(2) Prior to the completion of construction activities in Area 2</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>MM-CUL-3: Prior to commencement of Project construction activities that would require equipment staging at the Behner Water Treatment Plant (WTP), the City shall ensure that the exterior of the WTP building is adequately protected from equipment and vehicle staging activities. The northwest and southwest exterior elevations of the WTP shall, at a minimum, be protected by construction fencing and signage to ensure that none of the major exterior character-defining features of the building are inadvertently damaged. Fencing shall be placed at a minimum distance of five (5) feet from the exterior of the building, and crews working in the immediate vicinity should be alerted to the presence of an historical resource and instructed to avoid it. The City shall ensure that Project-related equipment and materials are not in contact with the exterior or the building, including absolute avoidance of leaning materials and equipment against exterior walls. The temporary fencing, signage, and barriers shall be removed at the conclusion of construction activities.</p>	<p>City of Pasadena/PWP shall ensure installation of protective measures for building protection from equipment and vehicle staging activities</p>	<p>Prior to commencement of Project construction activities that would require equipment staging at the Behner Water Treatment Plant</p>
<p>MM-CUL-4: Prior to commencement of earthmoving activities, the City shall retain a qualified Archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology. The Archaeologist shall be present at the pre-grade conference; shall establish procedures for archaeological resource surveillance; and shall establish, in cooperation with the Contractor, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts, as appropriate. At a minimum, in the event archaeological resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist can evaluate the significance of the find and determine whether or not additional study is warranted. The Archaeologist shall first determine whether it is a "unique archaeological resource" pursuant to the California Environmental Quality Act (CEQA, i.e., Section 21083.2[g] of the California Public Resources Code) or a "historical resource" pursuant to Section 15064.5(a) of the State CEQA Guidelines. If the archaeological resource is determined to be a "unique archaeological resource" or a "historical resource", the Archaeologist shall formulate a mitigation plan in consultation with the City of Pasadena that satisfies the requirements of the above-referenced sections. The Archaeologist shall prepare a report of the results of any study prepared as part of a testing or mitigation plan, following guidelines of the California Office of Historic Preservation, and s/he shall record the site and submit the recordation form to the City of Pasadena and the California Historic Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Work may proceed in other areas of the site, subject to the direction of the Archaeologist.</p>	<p>(1) City of Pasadena/PWP shall ensure hiring of a qualified archaeologist for meeting attendance and preparation of a mitigation plan</p> <p>(2) If any archaeological finds are studied, the City of Pasadena/PWP shall ensure the qualified archaeologist prepares a testing or mitigation plan</p>	<p>(1) Prior to the commencement of a ground disturbing activities or the pre-construction staging of equipment on the Project site</p> <p>(2) Upon discovery of any archaeological finds</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<p>MM-PALEO-1: Prior to commencement of any grading activity on-site, the City shall retain a qualified Paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be consistent with the SVP 2010 guidelines. Minimum requirements to be set forth in the PRIMP include: (1) attendance at the preconstruction meeting and worker environmental awareness training, where monitoring is required within the proposed Project site based on construction plans and/or geotechnical reports; (2) procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods, including sediment sampling for microvertebrate fossils, reporting, and collections management; (3) mandatory monitoring on-site during all rough grading and other significant ground-disturbing activities, including augering in previously undisturbed, fine-grained Pleistocene alluvial deposits; (4) mandatory actions in the event that paleontological resources (e.g., fossils) are unearthed during grading, including the requirement for the paleontological monitor to temporarily halt and/or divert grading activity to allow recovery of paleontological resources, and roping/fencing off of the discovery with a 50-foot radius buffer; and (5) if resources are discovered, methods for coordination between the qualified paleontologist and the City for appropriate exploration and/or salvage, as well as final disposition of the resources in an accredited institution or museum, such as the Natural History Museum of Los Angeles County.</p>	<p>City of Pasadena/PWP shall ensure hiring of a qualified paleontologist to prepare a Paleontological Resources Impact Mitigation Program</p>	<p>Prior to the commencement of a ground disturbing activities</p>
<p>Noise</p> <p>MM-NOI-1: The City and/or their Construction Contractor shall implement the following noise reduction measures during all construction activities:</p> <ul style="list-style-type: none"> • Equip all construction equipment (fixed or mobile) with properly operating and maintained mufflers, consistent with or exceeding manufacturers' standards. • Ensure that construction equipment engine enclosures and covers as provided by manufacturers shall be in place during operation. • Place all stationary construction equipment so that the equipment is as far as feasible from noise-sensitive receptors and so that the emitted noise is directed away from the noise-sensitive receptors. • Locate equipment and materials staging in areas that will create the greatest distance between staging area noise sources and noise-sensitive receptors during Project construction. 	<p>City of Pasadena/PWP shall ensure construction activities implement required noise reduction actions</p>	<p>During all demolition, earthwork and construction activities</p>

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<ul style="list-style-type: none"> Ensure that construction equipment is shut down when not in use. Limit haul truck deliveries to the same hours specified for the operation of construction equipment. 		
Recreation		
<p>MM-REC-1: Prior to the closure of recreational trails for public use, the City of Pasadena shall post signs providing at least one week of advanced notice of the dates and times of planned trail closures at the following locations:</p> <ul style="list-style-type: none"> Intersection of Ventura Street and Windsor Avenue Sunset Overlook Altadena Crest Trail (adjacent to the North Arroyo Boulevard) Arroyo Seco Trail West Rim Trail/East Rim Trail <p>In addition to the closure notice signage, the City shall provide the locations of nearby trails and recreational facilities in the surrounding area that would be open for public use at the times when the trails are closed. This information shall also be posted on the City's Parks, Recreation and Community Services website.</p>	City of Pasadena/PWP shall ensure implementation of required notifications	During all demolition, earthwork and construction activities
Transportation		
<p>MM-TRA-1: During the peak phase of construction activities (i.e. during the demolition phase requiring haul truck trips) in Area 3, all Construction Contractors shall schedule the arrival and departure of the sediment export haul trucks to be outside the AM peak hours of 7:30 AM to 8:30 AM and the PM peak hours of 4:30 PM to 5:30 PM.</p>	City of Pasadena/PWP shall ensure construction activities comply with haul truck schedule limits	During demolition phase in Area 3
<p>MM-TRA-2: During construction activities in Areas 2 and 3, use of the North Arroyo Boulevard or Gabrielino Trail/Access Road by hikers, bicyclists and equestrians shall be limited or prohibited when temporary partial or full closures of the Gabrielino Trail/ Access Road, Explorer Road, hiking trails or maintenance roads is necessary. In addition to the requirements for notification set forth in the City's Supplements and Modifications to the Greenbook, flagpersons and/or other safety procedures shall be used as necessary to ensure the safety of recreational users.</p>	City of Pasadena/PWP shall ensure notification of trail closure and safety procedures	During demolition, grading, and construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
MM-TRA-3: Prior to the start of construction, the City and/or their Construction Contractor shall provide written notice to the USFS and residences at the Ranger Station of the anticipated construction schedule, stating that access may be temporarily obstructed on an intermittent basis and providing a schedule of anticipated closures. In order to ensure that emergency vehicles would not be obstructed at any time, any temporary obstructions to the Gabrielino Trail/Access Road that could hinder emergency vehicular access shall be mobile and able to be removed from the roadway immediately upon notice from emergency responders.	City of Pasadena/PWP shall ensure notification of trail closure to USFS	Prior to commencement of construction activities, and ongoing, as needed
MM-CUJML-1: The City and/or their Construction Contractor shall coordinate with the Los Angeles County Department of Public Works and/or their contractor for the sediment removal activities at Devil's Gate Reservoir regarding the schedule of trucks to and from landfills that would require the use of Interstate 210 eastbound ramps/Arroyo Boulevard intersection. If it is determined that activities would overlap and Project traffic and cumulative traffic including the Devil's Gate project traffic would have vehicle queues at Caltrans facilities that exceed available storage lengths, then the City and/or their contractor shall implement construction vehicle/hauling restrictions that disallow the proposed Project's truck traffic during the AM and PM peak hours of 7:30 AM to 8:30 AM and 4:30 PM to 5:30 PM.	City of Pasadena/PWP shall ensure coordination with LACDPW	During demolition, grading, and construction activities
Tribal Cultural Resources		
MM-TCR-1: Prior to commencement of any ground-disturbing activities, the City of Pasadena shall retain a Native American Monitor approved by the Gabrieleño Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill AB 52 (the “Tribe” or the “Consulting Tribe”). The Tribal monitor shall only be present on the Project site during the construction phases that involve ground-disturbing activities. Ground disturbing activities may include, but may not be limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the Project area. The Tribal Monitor shall complete daily monitoring logs that provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when all ground-disturbing activities on the Project site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground disturbing activities at the Project site have little to no potential for impacting Tribal Cultural Resources. Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the	(1) City of Pasadena/PWP shall retain a Native American Monitor approved by the Gabrieleño Band of Mission Indians-Kizh Nation. (2) City of Pasadena/PWP shall ensure that the Native American Monitor observes ground disturbing activities	(1) Prior to commencement of ground disturbing activities and during any ground disturbing activities. (2) Only on the Project site during the construction phases that involve ground-disturbing activities

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by Project activities shall be evaluated by the qualified archaeologist (as required in MM-CUL-4) and the Tribal Monitor approved by the Consulting Tribe. If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes.		
MM-TCR-2: If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance shall immediately cease, and the county coroner shall be notified per Public Resources Code Section 5097.98, and Health & Safety Code Section 7050.5. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Work may continue on other parts of the Project site while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section 15064.5[f]). If a non-Native American resource is determined by the qualified archaeologist to constitute a “historical resource” or “unique archaeological resource,” time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and PRC Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.	City of Pasadena/PWP shall ensure compliance with applicable protocols and notifications and prepare a treatment plan, as appropriate	Upon discovery of human remains and/or grave goods during construction activities
Mitigation Measures Revised and/or Carried Forward from 2015 IS/MND Mitigation Monitoring and Reporting Program		
MM HAZ-1 The City shall require Construction Contractors to implement the following measures: <ul style="list-style-type: none"> Trucks and equipment entering the site shall be inspected to be free from oil, gasoline, or other vehicle fluid leaks. 	City of Pasadena/PWP	Periodically during construction (at least once per month)

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
<ul style="list-style-type: none"> Equipment fueling areas shall be located outside jurisdictional waters as identified by the USACE and CDFW. Hazardous materials shall not be stored within the 50-year floodplain for the Arroyo Seco. Instead, hazardous materials shall be stored within staging areas located away from the Arroyo Seco and shall be removed prior to the start of the storm season. All hazardous material spills and contaminated soils shall be excavated immediately upon discovery to minimize soil and water contamination and the potential of wildlife being poisoned or otherwise harmed. The Contractor shall maintain hazardous materials spill control, containment, and cleanup kits of adequate size and materials for potential accidental instream spills and releases. 	City of Pasadena/PWP	During construction activities, if odorous or discolored soils are found
<p>MM HAZ-2 Should discolored or odorous soils be encountered during grading and excavation activities in Area 3, the Contractor shall have a sample of the soils analyzed for the presence of contamination. If the results of the testing show that chemical levels are present below regulatory levels, grading and excavation activities may proceed accordingly. Otherwise, remediation and/or removal of the contaminated soils shall be completed prior to continued ground disturbance if chemical levels are above regulatory standards. Remediation and/or disposal shall be conducted with the oversight of applicable regulatory agencies such as the Los Angeles County Fire Department, the South Coast Air Quality Management District (SCAQMD), the California Department of Toxic Substances Control (DTSC), and/or the U.S. Environmental Protection Agency in compliance with established maximum contaminant levels (MCLs).</p>	City of Pasadena/PWP and Parks and Natural Resources Division	At least one week prior to bride and Gabriellino Trail/Access Road closure
<p>MM HAZ-3 The Contractor shall schedule the access road reconstruction in Area 2 so as to shorten the necessary closures of the access road to the extent feasible. The Contractor shall also inform the Pasadena Department of Water and Power (PWP), the Pasadena Fire Department, the Pasadena Police Department, the Los Angeles County Fire Department, and the United States Forest Service (USFS) at least one week in advance of the start of construction of the times when work on the Gabriellino Trail/access road are planned. Any major changes to the schedule shall be forwarded to these agencies at least one week prior to trail closures.</p>		

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing
MM HAZ-4 The Contractor shall not use, operate, or cause to be operated any internal combustion engine that uses hydrocarbon fuel, unless the engine is equipped with a spark arrestor and is maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.	City of Pasadena/PWP	Periodically during construction (at least once per month

