RESOLUTION NO. 18-12
A RESOLUTION OF THE BOARD OF DIRECTORS OF THE PALMDALE WATER DISTRICT
(i) ADOPTING FINDINGS OF FACT IDENTIFYING ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE 2016 WATER SYSTEM MASTER PLAN;
(ii) ADOPTING A MITIGATION MONITORING PROGRAM; AND
(iii) CERTIFYING THE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

WHEREAS, the Palmdale Water District (District) is charged with the responsibility of providing domestic water service to its customers; and

WHEREAS, to ensure that existing and future District customers are provided with adequate domestic water service to meet reasonable consumption, irrigation, and fire protection needs, and to ensure protection of public health, safety, and welfare as they relate to domestic water service, the District engages in a process of long-range planning for water service; and

WHEREAS, the District has prepared the 2016 Water System Master Plan (Master Plan or Project) to establish a water system infrastructure plan designed to meet anticipated customer demands through year 2030; and to set forth policy regarding the use of groundwater, local surface water supplies, imported State Water Project water, and other water sources to satisfy projected demands through year 2030; and

WHEREAS, in August of 2018, a Draft Program Environmental Impact Report (Draft PEIR) was prepared pursuant to the requirements of the California Environmental Quality Act (CEQA) to analyze the potential environmental impacts associated with the adoption and long-term implementation of the Master Plan; and

WHEREAS, the Draft PEIR circulated for a 45-day public review period ending on September 13, 2018; and

WHEREAS, following the receipt and review of comments on the Draft PEIR, a Final PEIR was prepared responding to and taking into account all comments received on the Draft PEIR; and

WHEREAS, the Final PEIR identified and analyzed six alternatives to the project, including the “no project” alternative required by CEQA; and

WHEREAS, Findings of Fact have been prepared that identify significant environmental impacts associated with the project and mitigation measures capable of reducing or eliminating impacts (Attachment “A”, attached hereto and incorporated by reference); and

WHEREAS, CEQA requires the District's of Directors, in its deliberations concerning the Project, exercise its independent judgment in balancing the benefits of the Project against its unavoidable significant adverse environmental effects; and

WHEREAS, a Mitigation Monitoring Program (Attachment "B", attached hereto and incorporated by reference) has been designed for the Project to mitigate or avoid significant effects on the environment to the extent feasible and to ensure compliance with the Mitigation Monitoring Program during project implementations; and

WHEREAS, the Board has determined that the Final PEIR has been completed in compliance with the requirements of CEQA and applicable guidelines; and

WHEREAS, the District has exercised its independent judgment in the preparation of the Final PEIR; and

WHEREAS, the Board will consider the information contained in the Final PEIR prior to approving the Master Plan and any related actions addressed in the Final PEIR.

NOW, THEREFORE, BE IT RESOLVED, the District Board of Directors hereby finds and determines as follows:

1) The Final PEIR identified all known possible environmental effects of the Project, along with mitigation measures and alternatives, all of which have been reviewed and considered by the District Board of Directors;

2) The Project, as identified in the Final PEIR, will have unavoidable, significant adverse environmental effects that cannot be fully mitigated;

3) The public interest generally and the interests of the District would be best served by implementation of the Project as a matter of overriding public interest which outweighs any unavoidable adverse environmental impacts of the project; and

4) The benefits of the Project outweigh the unavoidable adverse environmental effects, and the adverse environmental effects are considered acceptable.

BE IT FURTHER RESOLVED that the Board of Directors of the Palmdale Water District hereby adopts the Findings of Fact set forth in Attachment "A" hereto.

BE IT FURTHER RESOLVED that the Board of Directors of the Palmdale Water District hereby adopts the Mitigation Monitoring Program set forth in Attachment "B" hereto.

BE IT FURTHER RESOLVED that the Board of Directors of the Palmdale Water District hereby certifies that the Final Program Environmental Impact Report for the 2016 Water System Master Plan reflects the independent judgment of the District.

BE IT FURTHER RESOLVED that the Board of Directors of the Palmdale Water District hereby certifies the Final Program Environmental Impact Report for the 2016 Water System Master Plan.

BE IT FURTHER RESOLVED that the District staff is hereby directed to and shall prepare and file a Notice of Determination for the 2016 Water System Master Plan as required by law.

BE IT FURTHER RESOLVED that the District staff is hereby authorized and directed to prepare such additional documents and take such further actions as may be necessary to implement this resolution.

PASSED AND ADOPTED on this 26th day of November, 2018 by the Board of Directors of the Palmdale Water District.

PALMDALE WATER DISTRICT

VINCENT DINO, President

ATTEST:

ROBERT ALVARADO, Assistant Secretary

APPROVED AS TO FORM:

ALESHIRE & WYNDER, General Counsel

EXHIBIT A

PALMDALE WATER DISTRICT
WATER SYSTEM MASTER PLAN
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

CEQA Findings of Fact and Statement of Overriding Considerations

Prepared for
Palmdale Water District

November 2018

ESA

PALMDALE WATER DISTRICT
WATER SYSTEM MASTER PLAN
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

CEQA Findings of Fact and Statement of Overriding Considerations

Prepared for
Palmdale Water District

November 2018

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PALMDALE WATER DISTRICT WATER SYSTEM MASTER PLAN FINAL PEIR

Findings of Fact

The California Environmental Quality Act (CEQA) requires that public agencies shall not approve or carry out a project for which a Program Environmental Impact Report (PEIR) has been certified that identifies one or more significant adverse environmental effects of a project unless the public agency makes one or more written Findings for each of those significant effects, accompanied by a brief explanation of the rationale for each Finding (*CEQA Guidelines*, section 15091). This document presents the Findings made by the Palmdale Water District (PWD), in its capacity as the CEQA lead agency, regarding the Water System Master Plan (WSMP or project), evaluated in the Final Program Environmental Impact Report (Final PEIR) for the WSMP. It also presents the Statement of Overriding Considerations required by *CEQA Guidelines*, section 15093.

This document is organized into the following sections:

- Section 1.0 is an introduction.
- Section 2.0 describes the record of proceedings for the Project.
- Section 3.0 includes a summary and description of the Project.
- Section 4.0 provides an overview of the CEQA environmental review process.
- Section 5.0 contains the PWD's Findings of Fact regarding impacts for the WSMP.
- Section 6.0 contains the PWD's Findings regarding alternatives to the WSMP.
- Section 7.0 contains the PWD's Statement of Overriding Considerations for the WSMP.

1.0 CEQA Requirements for Findings of Fact

CEQA requires public agencies to consider and identify the reasonably foreseeable and potentially significant adverse effects of their discretionary approvals of projects on the environment and, when feasible, to adopt and implement mitigation measures or alternatives that avoid or substantially lessen the significant effects of those projects. Specifically, Public Resources Code (PRC) section 21002 provides "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects," and states the procedures required by CEQA "are intended to assist public agencies in systematically

identifying both the significant effects of Projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." PRC, section 21002 goes on to state "that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

Pursuant to the policy stated in PRC, sections 21002 and 21002.1, no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless both of the following occur:

(a) The public approving agency makes one or more of the following findings with respect to each significant effect:

    (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

    (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

    (3) Specific economic, legal, social, technological, other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

(b) With respect to significant effects that were subject to Findings under paragraph (3) above, the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.

PRC, section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." *CEQA Guidelines*, section 15364 adds another factor in determining feasibility: "legal" considerations. (See, also, *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 565 ("*Goleta II*").)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*).); see, also, *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [court upholds CEQA findings rejecting alternatives in reliance on applicant's project objectives]; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 1001 ["an alternative 'may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record'"]; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 ["feasibility is strongly linked to achievement of each of the primary [project] objectives"]).

Moreover, "feasibility" under CEQA encompasses "desirability" to the extent desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (*City of Del Mar, supra,* 133 Cal.App.3d at p. 417; see also *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715; *California Native Plant Society v. City of Santa Cruz, supra,* 177 Cal.App.4th at p. 1001 [after weighing "'economic, environmental, social, and technological factors' … 'an agency may conclude that a mitigation measure or alternative is impracticable or undesirable from a policy standpoint and reject it as infeasible on that ground'"].)

With respect to a project for which significant impacts cannot be avoided or substantially lessened through feasible mitigation measures or alternatives, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (*CEQA Guidelines*, section 15093 and subdivision 15043 (b); see, also, PRC, subdivision 21081 (b).) The California Supreme Court has stated, "[t]he wisdom of approving...any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (*Goleta II, supra*, 52 Cal.3d at page 576.)

Because the Final PEIR identified potentially significant effects that may occur as a result of the WSMP, and in accordance with the provisions of CEQA and the *CEQA Guidelines* described above, PWD hereby adopts these Findings as part of the approval of the project. In making these Findings and in adopting the Statement of Overriding Considerations, PWD has independently reviewed the Draft Program Environmental Impact Report (Draft PEIR), and the Final PEIR for the WSMP, as well as all other information in the record of proceedings (Record) on this matter. These Findings constitute PWD's best efforts to set forth the evidentiary and policy bases for its decision to approve the project in a manner consistent with the requirements of CEQA. These Findings and the Statement of Overriding Considerations, in other words, are not merely informational, but rather constitute a binding set of obligations that come into effect with PWD's approval of the project.

2.0 Record of Proceedings

The record of proceedings for the PWD's decision on the project, including the substantial evidence supporting adoption of these Findings and the Statement of Overriding Considerations include, but are not limited to, the following documents:

- The Notice of Preparation (NOP) and all other public notices issued by the PWD in conjunction with the WSMP;
- PWD WSMP Draft PEIR prepared for the Palmdale Water District through Environmental Science Associates (ESA), July 2018, and all appendices and supporting documents cited therein;

- All comments submitted by agencies, NGOs, Tribes, or members of the public during the comment period on the Draft PEIR;
- The Mitigation Monitoring and Reporting Program (MMRP) for the project and documents related thereto;
- All Findings and resolutions adopted by the PWD in connection with the WSMP and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the WSMP prepared by PWD, consultants to PWD, or responsible or trustee agencies with respect to the PWD's compliance with the requirements of CEQA and with respect to the WSMP;
- All documents submitted to PWD by other public agencies or members of the public in connection with the WSMP, up through the approval of the WSMP;
- Any documentary or other evidence submitted to PWD, at such information sessions, public meetings, and public hearings;
- Matters of common knowledge to PWD, including, but not limited to, federal, state, and local laws and regulations;
- Any documents expressly cited in these Findings or the Statement of Overriding, in addition to those cited above; and
- Any other materials required for the Record by Public Resources Code subdivision 21167.6 (e).

These Findings, the Statement of Overriding Considerations and the MMRP are based upon substantial evidence in the entire Record before PWD. The references to the Draft and Final PEIR set forth herein are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these Findings, the Statement of Overriding Considerations and the MMRP.

Pursuant to *CEQA Guidelines*, subdivision 15091 (e), PWD is the official custodian of the documents and other materials that constitute the Record upon which the decisions related to the Project are based, and such documents and other materials are located at the offices of the Palmdale Water District, which are located at 2029 E Avenue Q, Palmdale, CA 93550. Copies of the Draft and Final PEIR are available at the Palmdale Water District Office, Palmdale City Library (700 E. Palmdale Blvd., Palmdale, CA 93550), and online at the Palmdale Water District web site (http://www.palmdalewater.org).

3.0 Description of the Project

The following information is intended to provide a summary of the key components of the WSMP. Additional detailed information concerning each component of the WSMP is set forth in Chapter 2, "Project Description," of the Draft PEIR.

3.1 Background and Need for Project

PWD, as the lead agency pursuant to the CEQA, is proposing to implement the Water System Master Plan (WSMP or project) that outlines a programmatic plan for developing PWD's potable water system over the next 25 years. The WSMP was prepared to establish cost-effective water services that meet water quantity, water quality, system pressure and reliability requirements of its customers both immediately and into 2040 and beyond. The WSMP addresses both existing system deficiencies such as aging infrastructure as well as the need for facilities to accommodate for future growth. This includes facilities to be implemented by 2020 (near-term) as well as future projects to be implemented from 2021 through 2040 (long-term).

The WSMP was prepared as an update to PWD's previous Water System Master Plan as a response to anticipated area population growth, which is expected to double over the next 25 years. The State of California set strict water conservation goals in lieu of the five-year drought, and in 2015 PWD served the least amount of water over the last 30 years. In 2010 PWD began to address these upcoming demands and identified a number of water resource options available to meet anticipated needs through a Strategic Water Resources Plan (PWD 2016).

3.2 Project Objectives

The primary objectives of the WSMP are to:

- Provide cost-effective and fiscally responsible water services that meet the water quantity, water quality, system pressure, and reliability requirements of PWD customers;
- Improve or replace existing PWD water system infrastructure;
- Provide future water system infrastructure necessary to meet projected growth of PWD service area; and
- Ensure a potable water supply capable of meeting overall annual water demand that is projected to double over the next 25 years.

3.3 Project Location

The PWD service area is located in southern California, approximately 60 miles northeast of the City of Los Angeles, within the Antelope Valley, as shown in Figure 2-1 of the Draft PEIR. The District's primary service area includes the majority of the City of Palmdale and portions of unincorporated Los Angeles County. The District is bordered to the south and west by the San Gabriel Mountain Range, the north by the City of Lancaster, and the east by the unincorporated community of Littlerock. The District encompasses 47 square miles of mainly developed areas of the City of Palmdale and surrounding sphere of influence, with agricultural uses around its

perimeter. The project includes facilities that would be located outside of PWD boundaries in either the City of Palmdale or unincorporated Los Angeles County.

3.4 Near-Term Project Components

Improvements to address existing water system deficiencies that critically affect the ability of PWD to provide a reliable water supply to its customers are assigned highest priority and are scheduled to be constructed prior to 2020. These near-term projects involve either the construction of new facilities to compensate for future growth or the improvement of existing facilities that require replacement or upgrades due to system deficiencies. These project components include three storage tanks, three booster pump stations, and segments of transmission pipelines.

Storage Tanks

Three new storage tanks would be constructed to meet existing storage deficiencies within each tank's respective pressure zone:

- Storage tank ES-01 would be constructed approximately 500 feet west of PWD's western service boundary within the new Quail Valley development, located approximately 1 mile southwest of Lake Palmdale in an unincorporated portion of Los Angeles County. Storage tank ES-01 would have a diameter of 76 feet and a height of 30 feet. Storage Tank ES-01 would have a footprint of 4,536 square feet (SF) and a capacity of 1.0 million gallons (MG) to serve the 3600W pressure zone. See Figure 2-2a in the Draft PEIR for the potential location of storage tank ES-01.
- Storage tank FS-01 would be constructed approximately 1,700 feet west of PWD's western service boundary within the new Quail Valley development in an unincorporated portion of Los Angeles County. Storage tank FS-01 would have a diameter of 66 feet and a height of 30 feet. Storage Tank FS-01 would have a footprint of 3,421 SF and a capacity of 0.75 MG to serve the 3400W pressure zone. See Figure 2-2a for the potential location of storage tank FS-01.
- Storage tank ES-03 would be constructed near the intersection of Sierra Highway and Rae Street and within the PWD's service area. Storage tank ES-03 would have a diameter of 154 feet and a height of 30 feet. Storage tank ES-03 would have a footprint of 18,627 SF and a capacity of 4.2 MG to serve the 2950 pressure zone. See Figure 2-2b in the Draft PEIR for the potential location of storage tank ES-03.

Pump Stations

Three new pumps would be installed at existing pump stations to meet fire flow requirements and improve upon hydraulic deficiencies. One new pump would be installed at the existing V-5 Booster Station (EB-01), near the northwest corner of 47th Street East and Barrel Springs Road, to meet fire flow requirements for the 3400E pressure zone (see Figure 2-2c in the Draft PEIR). The improvements would expand total capacity by 3,500 gallons per minute (gpm). New pumps also would be installed at the existing 3600 Ft Booster Pump Station (FB-01), near the intersection of Tierra Subida Avenue and Lakeview Drive, and the existing El Camino Underground Pump Station (FB-02), near the intersection of El Camino Drive and Lakeview Drive, to serve the 3400W pressure zone and the new Quail Valley development. Figure 2-2d in

the Draft PEIR shows the locations of FB-01 and FB-02. Total capacity would be improved by 300 gpm and 650 gpm, respectively.

Pipelines

Multiple segments of transmission pipelines would be constructed throughout the PWD service area as part of its 2015-2020 planning horizon for CIP implementation. Pipelines to be constructed include fire flow projects, age-based pipeline improvements, and pipeline expansion projects. Segments of pipeline construction include the following estimates:

Fire Flow Projects

All pipelines to be constructed for fire flow projects are shown on Figure 2-2e and Figure 2-2f.

- Approximately 2,675 feet of 12-inch diameter pipeline replacement along 35th Street East, connecting between East Avenue Q and the Palmdale Water Reclamation Plant (FF-01);
- Approximately 965 feet of 12-inch diameter pipeline along Avenue Q-6 between 12th Street East and 15th Street East (FF-04);
- Approximately 1,570 feet of 16-inch diameter pipeline along Fort Tejon Road and 52nd Street East (FF-05);
- Approximately 48 feet of 8-inch diameter pipeline on Avenue S-10 between 40th Street East and 42nd Street East (FF-06); and
- Approximately 1,400 feet of 8-inch diameter pipeline north of Barrel Springs Drive and Camares Drive, within the Quail Valley development area (FF-07).

Pipeline Improvements and Expansion

- Pipeline along 47th Street East, connecting the improvements at pump station EB-01 south and then extending the pipeline west through undeveloped land to an existing deficiency recommended tank (see Figure 2-2c in the Draft PEIR);
- Pipeline within the ROW of Sierra Highway, connecting an existing storage tank and pump station southeast to the deficiency recommended tank ES-03 (see Figure 2-2b in the Draft PEIR); and
- Pipeline west of Lakeview Drive through undeveloped land connecting to the storage tank ES-01 (see Figure 2-2a in the Draft PEIR).

3.5 Long-Term Project Components

Storage Tanks, Pump Stations, Pipelines, and Wells

Improvements that address existing system deficiencies that are not considered immediately critical or high priority to PWD are proposed as long-term project components. The construction of these projects would start in 2021 and continue through 2040. The phasing of the long-term project improvements is based upon many factors, such as the actual rate of growth and the timing of developments expected in the PWD service area, the reasons for which are presented in Table 2-3 and Table 2-4 in the Draft PEIR. The long-term project components would include the construction of new facilities or improvements to existing facilities, and would consist of 16

storage tanks, 7 new pumps at five existing pump stations, 6 new pump stations, 5 production wells, and over 700,000 feet of transmission pipelines ranging from 6-to 24-inches in diameter shown on Figure 2-2. Since the long-term buildout of these project components is based on the projected demands for each pressure zone and is subject to the availability of funds, the phasing of the long-term projects is presented as a planning guideline for their future implementation (see Table 2-3 and 2-4 in the Draft PEIR). The actual timing of future facilities will be dependent upon the actual rate of growth and the timing of new developments expected in the service area.

Headquarters Expansion

The PWD headquarters expansion is anticipated to occur from 2021 through 2030 and is therefore considered a long-term project. The headquarters expansion would house existing and future staff required to serve the water system in the long term. The headquarter expansion would consist of demolition of existing buildings at the corner of E. Avenue Q and 20th Street in Palmdale and construction of a 21,000 square foot building. The building to be constructed would be one story in height and would be constructed on land currently owned by PWD.

4.0 CEQA Environmental Review

The basic purposes of CEQA are to (1) inform decision makers and the public about the potential, significant adverse environmental effects of proposed governmental decisions and activities, (2) identify the ways those environmental effects can be avoided or significantly reduced, (3) prevent significant, avoidable and adverse environmental effects by requiring changes in projects through the use of alternatives or mitigation measures when feasible, and (4) disclose to the public the reasons why an implementing agency may approve a project even if significant unavoidable environmental effects are involved.

An EIR uses a multidisciplinary approach, applying social and natural sciences to make a qualitative and quantitative analysis of all the foreseeable environmental impacts that a Project would exert on the surrounding area. As stated in *CEQA Guidelines* section 15151:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a Project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.*

This Final PEIR has been prepared in accordance with the CEQA as amended (PRC section 21000 *et seq.*) and *CEQA Guidelines* (California Code of Regulations, section 15000 *et seq.*). The Final PEIR incorporates, by reference, the Draft PEIR (State Clearinghouse No. 2017021042) prepared by PWD for the WSMP as it was originally published. In accordance with Section 15132 of the *CEQA Guidelines*, the Final PEIR shall consist of the following:

(a) The Draft PEIR or a revision of the draft.

(b) Comments and recommendations received on the Draft PEIR either verbatim or in summary.

(c) A list of persons, organizations, and public agencies commenting on the Draft PEIR.

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

(e) Any other information added by the Lead Agency.

Before PWD may approve the project, it must certify the Final PEIR: a) has been completed in compliance with CEQA; b) was presented to the PWD Board of Directors who reviewed and considered it prior to approving the project; and c) reflects PWD's independent judgment and analysis (*CEQA Guidelines* section 15090).

Section 15004 of the *CEQA Guidelines* states before the approval[1] of any project subject to CEQA, the Lead Agency must consider the final environmental document, which in this case is the Final PEIR.

4.1 Environmental Review Process

Notice of Preparation and Public Scoping

In accordance with Section 15082 of the *CEQA Guidelines*, a NOP of a PEIR was prepared and circulated for review by applicable local, state and federal agencies and the public. The 30-day project scoping period, which began with the distribution of the NOP on February 13, 2017 remained open through March 15, 2017. A public scoping meeting was held on March 13, 2017 at the Palmdale Water District Board Room at 2029 East Avenue Q, Palmdale CA, 93550. The NOP provided the public and interested public agencies with the opportunity to review the project and to provide comments or concerns on the scope and content of the environmental review document including: the range of actions; alternatives; mitigation measures, and significant effects to be analyzed in depth in the PEIR.

Notice of Availability of the Draft PEIR

The Notice of Availability (NOA) of the Draft PEIR was posted on July 30, 2018 with the County Clerk-Recorder in Los Angeles County. The Draft PEIR was circulated to federal, state, and local agencies and interested parties requesting a copy of the Draft PEIR. Copies of the Draft PEIR were made available to the public at the following locations:

- Palmdale Water District office, 2029 East Avenue Q, Palmdale CA 93550
- Palmdale Water District web site (http://www.palmdalewater.org)
- Palmdale City Library, 700 E. Palmdale Blvd., Palmdale, CA 93550

[1] The word "approval" is defined by Section 15352 of the *CEQA Guidelines* to mean "the decision by a public agency which commits the agency to a definite course of action in regard to a project intended to be carried out by any person…"

The Draft PEIR was circulated for public review from July 30, 2018 through September 13, 2018. During that period, PWD held one CEQA public meeting to provide interested persons with an opportunity to comment orally or in writing on the Draft PEIR. The CEQA public meeting included a brief presentation providing an overview of the project and conclusions of the Draft PEIR, and was held at the Palmdale Water District Board Room on August 29, 2018.

Responses to Comments and Final PEIR

CEQA Guidelines, section 15088 requires PWD, as the Lead Agency, to evaluate comments on significant environmental issues received from parties that have reviewed the Draft PEIR and to prepare a written response. As stated in *CEQA Guidelines*, sections 15132 and 15362, the Final PEIR must contain the comments received on the Draft PEIR, either verbatim or in summary, a list of persons commenting, and the response of the Lead Agency to the comments received.

Eleven (11) letters or emails were received by PWD from public entities or interested parties commenting on the Draft PEIR. The Final PEIR includes responses to all comments received. The responses do not significantly alter the project, change the Draft PEIR's significance conclusions, or provide new information regarding substantial adverse environmental effects not already analyzed in the Draft PEIR. Instead, the information presented in the responses to comments "merely clarifies or amplifies or makes insignificant modifications" in the Draft PEIR, as is permitted by *CEQA Guidelines*, subdivision 15088.5(b).

In the course of responding to comments, certain portions of the Draft PEIR have been modified slightly for further clarification. The comments and modifications have not identified the existence of: (1) a significant new environmental impact that would result from the WSMP or an adopted mitigation measure; (2) a substantial increase in the severity of an environmental impact; (3) a feasible project alternative or mitigation measure not adopted that is considerably different from others analyzed in the Draft PEIR that would clearly lessen the significant environmental impacts of the WSMP; or (4) information that indicates the public was deprived of a meaningful opportunity to review and comment on the Draft PEIR (*CEQA Guidelines*, subdivision 15088.5(a). Consequently, PWD finds the clarifications made to the Draft PEIR in the Final PEIR do not collectively or individually constitute significant new information within the meaning of PRC, section 21092.1 and *CEQA Guidelines*, section 15088.5. Recirculation of the Draft PEIR or any portion thereof, is, therefore, not required.

The written responses to commenting public agencies shall be provided at least ten (10) days prior to the certification of the Draft PEIR (*CEQA Guidelines* §15088(b)). PWD provided the Final PEIR to commenters on October 12, 2018, and made the document available for review at the following locations:

- Palmdale Water District office, 2029 East Avenue Q, Palmdale CA 93550
- Palmdale Water District web site (http://www.palmdalewater.org)
- Palmdale City Library, 700 E. Palmdale Blvd., Palmdale, CA 93550

5.0 Findings of Fact Regarding WSMP Impacts

5.1 Findings Regarding No Impacts

The Final PEIR concludes the project will result in no impacts to the resource areas listed below, and that no mitigation measures are required. PWD finds, based on the Final PEIR and the entire record, the Final PEIR's conclusions regarding the project's impacts to these resource areas are correct.

- Aesthetics (Impact 3.1-2, State Scenic Highways) – There are no officially-designated State Scenic Highways or Eligible State Scenic Highways within the PWD service area. Therefore, no impact would occur. No mitigation is required.

- Agriculture (Impact 3.2-1, Conversion of Farmland to Non-Agriculture Use) – Implementation of WSMP facilities would not result in the conversion of any Farmland to non-agricultural use. Therefore, no impact would occur. No mitigation is required.

- Agriculture (Impact 3.2-2, Conflict with Existing Zoning or Williamson Act Contract) – Implementation of WSMP facilities would not conflict with existing zoning for agricultural use, or a Williamson Act Contract. Therefore, no impact would occur. No mitigation is required.

- Agriculture (Impact 3.2-3, Zoning or Rezoning of Forest Land or Timberland) – There is no land designated or zoned as Forest or Timberland within the project area. Therefore, no impact would occur. No mitigation is required.

- Agriculture (Impact 3.2-4, Conversion of Farmland or Forest Land) – Implementation of the WSMP facilities would not result in the conversion of Farmland to non-agriculture use or forest land to non-forest use. Therefore, no impact would occur. No mitigation is required.

- Agriculture (Impact 3.2-5, Loss of Forest Land or Conversion to Non-Forest Use) – Implementation of the WSMP facilities would not result in the loss of forest land or the conversion of forest land to non-forest use. Therefore, no impact would occur. No mitigation is required.

- Geology and Minerals (Impact 3.6-5, Wastewater Disposal Systems) – The facilities would not require the use of septic tanks or alternative reclaimed water disposal systems. During construction of the project components, portable toilet facilities would be provided if necessary, and waste would be collected by a certified waste hauler and appropriately disposed of for treatment. The facilities would not require onsite employees that would generate wastewater, nor would the facilities themselves generate wastewater during operation—therefore, no waste disposal facilities are needed. Therefore, no impact would occur. No mitigation is required.

- Hydrology (Impact 3.8-5, Housing Placement: Flood Hazard Area) – The project includes construction and operation of storage tanks, pumps, pump stations, pipelines, wells, and the headquarters expansion within the project area, and does not include any type of housing element. Therefore, no impact would occur. No mitigation is required.

- Land Use and Recreation (Impact 3.9-1, Divide and Established Community) – The facilities associated with the WSMP are not aboveground linear features that would create a barrier or physically divide an established community. Although the pipelines are linear features, they would be installed underground and as such would not permanently divide an established community. Some facilities such as pump stations would be located adjacent to public ROWs; however, there are no features of these other facilities that would create a barrier within public roadways or physically divide an established community. Implementation of all facilities would not affect existing access conditions. As a result, no impact would occur. No mitigation is required.

- Land Use and Recreation (Impact 3.9-4, Increase Use of Recreation Facilities) – The project would not build new housing or otherwise have a direct impact on population growth in the project area, such as a residential housing project that would result in impacts to recreational facilities due to increased use. Therefore, the project would not result in an increase in the use of existing neighborhood and regional parks, or other recreational facilities that would result in a substantial physical deterioration of these facilities. No impact would occur. No mitigation is required.

- Public Services (Impact 3.11-1, Fire and Police Protection) – The project components would not result in the permanent increase in residences or population, no increase in the need for new fire or police protection facilities would occur. Therefore, no impact would occur. No mitigation is required.

- Public Services (Impact 3.11-2, Schools) – No new schools would need to be built in order to maintain acceptable performance objectives. Therefore, no impact would occur. No mitigation is required.

- Public Services (Impact 3.11-3, Parks and Other Public Facilities) – The project would not require the construction of new recreational facilities. Therefore, no impact would occur. No mitigation is required.

- Utilities and Energy (Impact 3.14-2, Water or Wastewater Treatment Facilities) –The project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, no impact would occur. No mitigation is required.

- Utilities and Energy (Impact 3.14-6, Landfill Capacity) – The project would not be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs. Therefore, no impact would occur. No mitigation is required.

Cumulative Impacts

Cumulative impacts to public services, agriculture, and forestry resources would have no impact.

All other cumulative impacts would have less than significant impacts (see section 5.2.1 below), less than significant impacts with mitigation (see section 5.3.12 below), or potentially significant and unavoidable impacts (see section 5.4.1 below).

5.2 Findings Regarding Less Than Significant Impacts

The Final PEIR identifies the following environmental impacts as less than significant, and no mitigation measures are required. Distinctions are made below for the near-term project facilities, which are analyzed at a project-level in the Final PEIR, and the long-term project facilities, which are analyzed at the programmatic level in the Final PEIR. PWD finds, based on the Final PEIR and the entire record, that the Final PEIR's conclusions regarding the project's impacts to these resource areas are correct.

- Air Quality and Greenhouse Gas Emissions (Impact 3.3-1, Air Quality Plan) –

  All Facilities (Near Term, Long-Term). Implementation of the project would not conflict with growth projections in the Antelope Valley Air Quality Management District (AVAQMD) Ozone Attainment Plan (OAP). The project would also incorporate control strategies, as applicable, consistent with the OAP. Construction of the project would comply with AVAQMD Rule 403 (fugitive dust) requirements and would utilize a construction contractor(s) that complies with required and applicable Best Available Control Technology (BACT) and the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. Therefore, impacts would be less than significant. No mitigation is required.

- Air Quality and Greenhouse Gas Emissions (Impact 3.3-5, Odors) –

  All Facilities (Near-Term, Long-Term). Through mandatory compliance with AVAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. The project would also comply with the applicable provisions of the CARB ATCM regarding idling limitations for diesel trucks during construction. Operation of the storage tanks, pump stations, pipelines and groundwater wells would involve the storage and conveyance of water and would not generate odors. Therefore, objectionable odor impacts affecting a substantial number of people would not occur from construction or operation of the facilities, and impacts would be considered less than significant. No mitigation is required.

- Air Quality and Greenhouse Gas Emissions (Impact 3.3-6, Greenhouse Gas (GHG) Emissions) –

  All Facilities (Near-Term). Construction of the would not exceed the AVAQMD GHG screening threshold of 100,000 MT CO_2e. Operation of the near-term projects would generate minimal GHG emissions and would not exceed the GHG significance threshold. As such, implementation of the project would not generate, either directly or indirectly, substantial GHG emissions and impacts would be less than significant. No mitigation is required.

  All Facilities (Long-Term). Although construction and operation emissions were not modeled for analysis due to the programmatic nature of analysis of long-term facilities, it is anticipated that GHG emissions resulting from the long-term projects would not exceed AVAQMD's screening threshold. Assuming that construction of facilities in the long-term phase would be completed after 2020 and intermittently over the following 20 years, total construction

emissions would be amortized over 30 years. In addition, it is anticipated that operation of the facilities would not result in substantial GHG emissions. Operation of additional pipelines and extraction wells would involve additional energy usage to transmit and extract water in the project area; however, these activities are not expected to result in substantial GHG emissions. Therefore, it is reasonable to assume that implementation of the long-term projects would not generate, either directly or indirectly, substantial GHG emissions and impacts would be less than significant. No mitigation is required.

- Air Quality and Greenhouse Gas Emissions (Impact 3.3-7, Consistency with Greenhouse Gas Reduction Plans, Policies, and Regulations) –

  All Facilities (Near-Term). The GHG emissions generated by the construction and operation of near-term projects would not exceed the AVAQMD's significance threshold of 100,000 MT CO2e per year. The primary source of GHG emissions generated by project implementation would occur during construction, which would be temporary in nature. The annual GHG emissions associated with the operation of the facilities would generate minimal GHG emissions. Other emissions from maintenance would include electricity demand from the pump stations, which are expected to be generally similar to current electricity demand levels and electric utility providers would be required to comply with the State's Renewables Portfolio Standard. Consequently, the implementation of the project would not generate substantial amounts of GHG emissions that would hinder the State's ability to achieve the goal under HSC Division 25.5 of achieving 1990 levels of GHG emissions by 2020. Furthermore, the project would not conflict with or impede the future statewide GHG emission reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels. Therefore, this impact would be less than significant. No mitigation is required.

  All Facilities (Long-Term). The long-term projects would be expected to comply with applicable construction- and operational-related GHG regulations as discussed under the near-term projects analysis above. Therefore, implementation of the long-term projects would be less than significant. No mitigation is required.

- Biological Resources (Impact 3.4-1, Effect on Species) –

  Pumps (Near-Term). All three proposed near-term pumps would be implemented within existing pump stations that are developed and would not support special-status plant and wildlife species. No impacts to special-status species are expected due to the implementation of the proposed project. Impacts are considered less than significant; no mitigation is required.

- Biological Resources (Impact 3.4-3, Federally Protected Wetlands) –

  All Facilities (Near-Term, Long-Term). No near-term or long-term storage tanks, pump station, pipelines, or groundwater wells would affect Lake Palmdale, which has and currently does support navigation and substantial surface water related recreation with the potential for interstate commerce. Construction at the PWD headquarters buildings would not affect Lake

Palmdale. No impacts to federally protected wetlands are expected due to the implementation of the project and impacts would be less than significant. No mitigation is required.

- Biological Resources (Impact 3.4-4, Wildlife Corridors and Nursery Sites) –

  All Facilities (Near-Term, Long-Term). On a regional level, the project area is not a part of, nor contains a portion of, a major wildlife corridor or habitat linkage. The majority of the project area is developed and the remaining natural open space is fragmented by developments, which limits the area's use by wildlife for movement on a regional scale. On a local scale, for each of the near-term and long-term project components, there is wildlife movement across each site, lending to the intrinsic habitat value, but none of the sites provide a critical linkage between two large, undisturbed habitat areas. Therefore, impacts to wildlife corridors and nursery sites would be less than significant. No mitigation is required.

- Biological Resources (Impact 3.4-6, Conservation Plans) –

  Pipelines (Long-Term). As currently sited, several long-term pipelines are located in the Antelope Valley Significant Ecological Area (SEA) and the San Andreas Rift Zone SEA. The locations go through undeveloped lands of the SEA and could be incompatible with SEA design compatibility criteria. PWD would coordinate with the Significant Ecological Areas Technical Advisory Committee (SEATAC) and adhere to the design compatibility criteria for each SEA if determined applicable. Impacts would be less than significant. No mitigation is required.

- Geology and Minerals (Impact 3.6-1, Fault Rupture and Ground Shaking) –

  Storage Tanks (Near-Term and Long-Term). None of the three near-term or 16 long-term storage tanks would be located within an Alquist-Priolo fault zone and are thus not located adjacent to a fault. However, the entire project area is considered a seismically active region and therefore storage tanks would likely be exposed to groundshaking throughout their operation. Storage tanks would be constructed in accordance with the California Building Code, which includes seismic design provisions to reduce the negative effects of groundshaking on structures. Impacts would be less than significant related to fault rupture and ground shaking. No mitigation is required.

  Pumps (Near-Term). The three near-term pumps (EB-01, FB-01, and FB-02) would be installed at existing pump stations. One of these existing pump stations (EB-01) is located within the Alquist-Priolo fault zone associated with the San Andreas fault. Therefore, the near-term pumps installed at this pump station could be subject to fault rupture similar to already existing pumps at this location. Further, all of the near-term pumps would likely be exposed to strong seismic groundshaking given the highly seismic project area. However, the near-term pumps would be constructed according to California Building Code requirements, including implementation of seismic design provisions designed to reduce fault rupture and ground shaking effects on the structures. Impacts would be less than significant related to fault rupture and ground shaking for near-term pumps. No mitigation is required.

Pumps (Long-Term). The WSMP includes implementation of seven new pumps at five existing pump stations, and six new pump stations as part of the long-term scenario. Two new pumps (EB-04 and FB-07) would be installed at an existing pump station that is located within an Alquist-Priolo fault zone; therefore, these new pumps could be subject to fault rupture similar to already existing pumps at this location. None of the long-term new pump stations would be located within an Alquist-Priolo fault zone. All new pumps and pump stations would be constructed according to California Building Code requirements, including provisions geared towards reducing fault rupture and ground shaking effects on structures. Impacts would be less than significant related to fault rupture and ground shaking for long-term pumps and pump stations. No mitigation is required.

Pipelines (Near-Term and Long-Term). Sections of both near-term and long-term pipelines would be located within an Alquist-Priolo fault zone. Pipelines both within and outside of the Alquist-Priolo fault zone would still be subject to ground shaking due to the area's high seismicity. All pipelines would be designed in accordance with the AWWA/ANSI standards and PWD's Engineering Standards and Specifications, which would help ensure structural resiliency should an earthquake occur. Impacts would be less than significant related to fault rupture and ground shaking for near-term and long-term pipelines. No mitigation is required.

Wells (Long-Term). None of the groundwater wells would be located within an Alquist-Priolo fault zone and would thus not be subject to fault rupture, yet wells would likely be subject to ground shaking since the project area is a seismically-active region. However, the wells would be constructed in accordance with the Department of Water Resources California Well Standards, which includes provisions pertaining to well sealing and casing to prevent corrosion and leaks. These provisions would also help secure the well in the event of ground shaking. The wells would also be required to obtain well permits prior to construction from the County of Los Angeles that require the review of well site plan prior to permit approval to ensure well structural stability to the maximum extent possible. Impacts would be less than significant related to fault rupture and ground shaking for wells. No mitigation is required.

Headquarters Expansion (Long Term). The PWD headquarters expansion building would consist of demolition of existing buildings at the corner of E. Avenue Q and 20th Street in Palmdale and construction of a 21,000 square foot addition to the headquarters building. The location for the headquarters expansion is not located within an Alquist-Priolo fault zone as shown on Figure 3.6-1 and is thus not located adjacent to a fault. However, the entire project area is considered a seismically active region and therefore the headquarters building would likely be exposed to groundshaking throughout its operation. The headquarters expansion building would be constructed in accordance with the California Building Code, which includes seismic design provisions to reduce the negative effects of groundshaking on structures. Impacts would be less than significant related to fault rupture and ground shaking. No mitigation is required.

- Geology and Minerals (Impact 3.6-6, Loss of Known Mineral Resources or Mineral Resource Recovery Site) –

  Storage Tanks (Long-Term). Two of the long-term storage tanks (FS-13 and FS-15) would be located within State-designated Mineral Resource Zone (MRZ)-2 that is also identified within the City of Palmdale General Plan associated with Little Rock Wash. However, all six existing and active sand and gravel mining locations in the project area are located east of the storage tanks; therefore, the storage tanks would not impede active mining operations. Further, the surface areas of the storage tanks are minimal (i.e. they would range from 2.4 MG to 5.5 MG capacity) compared to the size of the Little Rock Wash MRZ-2, and would thus not substantially impede future mineral resource extraction in this area. These storage tanks would be located on vacant land adjacent to a parcel containing storage facilities and across from a residential parcel; therefore, future mining in this location is not likely given its proximity to other existing non-mining land uses. Impacts would be less than significant related to the loss of availability of a State or locally-valuable mineral resource. No mitigation is required.

  Pipelines (Long-Term). Several of the long-term pipelines would pass through Little Rock Wash MRZ-2, which is both a State-designated mineral resource zone and identified locally in the City of Palmdale General Plan. However, pipelines would not disrupt existing mining operations since active sand and gravel mining areas are located east and south of the long-term pipeline locations. The majority of long-term pipelines would be located in already developed areas and within rights of way in the Little Rock Wash MRZ-2, which are areas that would not be easily excavated for mineral resources extraction in the future. Undeveloped areas rendered inaccessible for mineral resource extraction by pipeline installation would be small relative to the size of the Little Rock Wash MRZ-2. Impacts would be less than significant related to the loss of availability of a known mineral resource that would be of value to the State and local residents. No mitigation is required.

  Wells (Long-Term). Three out of the five long-term wells would be located within the State-designated and locally-identified Little Rock Wash MRZ-2. However, the wells would not be located in any currently active mining areas in Little Rock Wash MRZ-2, and given their proximity to development, the well locations would not likely be excavated for mineral resources in the future. Further, well footprints would cover a very small surface area relative to the size of the Little Rock Wash MRZ-2; the vertical space taken up by the wells would be small relative to the size of the mineral resource zones. The remaining two wells in the northern portion of the project area are not located in a MRZ. Impacts would be less than significant related to the loss of availability of a known mineral resource that would be of value to State and local residents. No mitigation is required.

- Hazards (Impact 3.7-1, Routine Use) –

  All Facilities (Near-Term and Long-Term). The anticipated construction activities required for implementation of the facilities would temporarily require the transport, use, and disposal of hazardous materials. Construction activities would also require the use of heavy equipment that would contain oil, gasoline, or other fluids. Impacts associated with accidental release of

these materials could potentially create a significant hazard to the public or the environment. PWD's compliance with all applicable federal, State and local regulations regarding the handling, storage, transportation, and disposal of hazardous materials would reduce potential impacts to the public or the environment related to the transport, use, or disposal of hazardous materials to less than significant. No mitigation is required. Hazardous materials would not be associated with the regular operation of the facilities. As a result, operational impacts would be less than significant and no mitigation is required.

- Hazards (Impact 3.7-2, Accident Conditions) –

  All Facilities (Near-Term and Long-Term). Construction and operation activities associated with implementation of project facilities could create hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. PWD is required to comply with all relevant and applicable federal, State and local laws and regulations that pertain to the accidental release of hazardous materials during construction of all near-term facilities and during operation of the long-term wells. Compliance with all applicable regulations would reduce potential impacts to the public or the environment regarding accidental release of hazardous materials to less than significant. No mitigation is required.

- Hazards (Impact 3.7-3, Schools) –

  All Facilities (Near-Term and Long-Term). Three short-term pipelines (FF-01, FF-04, and FF-05) would be located within 0.25 mile (1,320 feet) of a school, and various long-term project components have the potential to be located within 0.25 mile of a school. Thus, construction activities would use limited quantities of hazardous materials. Additionally, PWD is required to comply with all relevant and applicable federal, State and local laws and regulations that pertain to the release of hazardous materials during construction of facilities. Compliance with all applicable regulations would reduce potential impacts to the public or the environment regarding hazardous waste emissions within 0.25 mile of a school. Impacts would be less than significant. No mitigation is required. Additionally, hazardous materials would not be associated with the regular operation of the facilities. As a result, operational impacts would be less than significant. No mitigation is required.

- Hazards (Impact 3.7-4, Hazardous Materials Site Listing) –

  All Facilities (Near-Term and Long-Term). One active site, Air Force Plant 42 (AFP 42), is listed as an active State response site on a list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (the "Cortese List"). AFP 42 is not within the project area; however, construction of various long-term pipelines and long-term wells FW-4 and FW-5 would occur within one mile of the area, which is located at the existing Palmdale Regional Airport. U.S Air Force reports indicated that the groundwater contamination plume is confined to an approximate 200-foot radius. While the long-term pipelines are not expected to be constructed within this radius, the two groundwater production wells could interact with contamination at AFP 42. Since 2010, however, the U.S Air Force constructed and installed a groundwater treatment system to

extract, treat, and inject impacted groundwater. These actions are anticipated to reduce the TCE plume located at AFP 42, which is expected to reduce in size and concentration over time. While it is not anticipated that contaminated soil and/or groundwater would be encountered during excavation of the pipelines, PWD would be required to coordinate with the U.S. Air Force, SWRCB, and DTSC prior to construction of the production wells to ensure no contamination interference would occur. As a result, impacts to the public or the environmental relation to hazardous materials sites would be less than significant. No mitigation is required.

- Hydrology (Impact 3.8-4, Exceedance of Stormwater Drainage System Capacity) –

  All Facilities (Near Term and Long Term). The City of Palmdale contains numerous localized drainage systems that connect to earthen channels or drain to retention basins. Construction of all of the facilities would require minimal amounts of water. Therefore, the project is not expected to generate a large amount of runoff onsite during construction compared to existing stormwater runoff conditions that would exceed the capacity of existing stormwater drainage systems. During operation, the facilities would operate to store, convey, extract groundwater, and would not discharge any runoff to stormwater drainage systems. Although storage tanks would represent large impervious surfaces that would increase stormwater runoff, the storage tank locations are surrounded by undeveloped and/or impervious areas that are expected to accommodate runoff. Pumps, pump stations, wells, pipelines, and the headquarters expansion would not introduce substantial impervious surfaces such that excessive runoff would be generated. Therefore, impacts related to the generation of runoff that would exceed the capacity of stormwater drainage systems would be less than significant. No mitigation is required.

- Hydrology (Impact 3.8-5, Structures: Flood Hazard Area) –

  Pipelines (Long-Term). Some of the long-term pipelines would be located within a 100-year flood zone. However, pipelines would be installed belowground. Construction equipment necessary for performing trenching, excavation, dewatering and backfilling would be located aboveground, but only temporarily and would not have the capability to impede or redirect any flood flows. The pipelines would operate entirely belowground and would thus not have the ability to impede or redirect flood flows during their operation. Impacts related to the impediment or redirection of flood flows within a 100-year flood zone would be less than significant. No mitigation is required.

- Hydrology (Impact 3.8-6, Flood Hazards: Levee or Dam Failure) –

  Pipelines (Long-Term). Although there are no levees within the vicinity of the project facilities, some of the long-term pipelines would be located within the expected inundation area of the Palmdale Dam. However, pipelines would be installed belowground and construction equipment located aboveground during pipeline installation would only be present temporarily. The pipelines would operate entirely belowground and would not require staffing; therefore, they would not expose people or structures to impacts associated with the

failure of a levee or dam. Impacts related to levee or dam failure would be less than significant. No mitigation is required.

- Land Use and Recreation (Impact 3.9-3, Conflict with Conservation Plans) –

  All Facilities (Near-Term and Long-Term). None of the project components are within the SEAs. As currently sited, several long-term pipelines are located in the Antelope Valley SEA and the San Andreas Rift Zone SEA (see Figure 3.9-2). The locations go through undeveloped lands of the SEA and could be incompatible with SEA design compatibility criteria. PWD would coordinate with SEATAC and adhere to the design compatibility criteria for each SEA if determined applicable (Los Angeles County Department of Regional Planning 2009). Impacts would be less than significant. No mitigation is required.

- Noise (Impact 3.10-5, Public Airport and Private Airstrip Noise) –

  All Facilities (Near-Term and Long-Term). The project could include the installation of new water facilities, such as pipelines, pump stations, storage tanks, and wells, within two miles of the Palmdale Municipal Airport and U.S. Air Force Plant 42. Implementation of the project would not introduce permanent future residents or workers to the facilities; however, maintenance and inspection workers would be required to intermittently visit the facilities. Existing and future staff associated with the headquarters facility expansion would accommodate future facilities to be constructed as part of the WSMP and would not present a substantial increase in workers to the site. Future employees to perform maintenance and inspection at the facility sites would be minimal and periodic, and therefore, employees would not be subjected to excessive noise levels from an airport or airstrip. Therefore, implementation of the project would not expose people to excessive airport noise levels, and impacts would be less than significant. No mitigation is required.

- Traffic (Impact 3.12-2, Level of Service) –

  All Facilities (Near-Term and Long-Term). In Los Angeles County, the congestion management program agency is the Los Angeles County Metropolitan Transportation Authority (LACMTA). LACMTA prepares the County CMP, which defines the network of state highways and arterials and Level of Service (LOS) standards for these roadways. Designated CMP roadways within the project area are SR-14 and SR-138; their LOS standards are intended to regulate long-term traffic increases resulting from operation of new development and do not apply to temporary construction projects. The project would not introduce any new facilities to the project area that would generate long-term changes in traffic. The storage tanks, pumps, pump stations, wells would require periodic trips related to maintenance. Occasional maintenance of the pipelines would occur on an as-needed basis. Employees and maintenance work associated with the headquarters expansion building would not require a substantial increase in vehicle trips since the existing PWD headquarters and maintenance yard are adjacent to the expansion location. These maintenance activities would not constitute a substantial increase in roadway traffic in the project area. Impacts related to conflicting with an applicable congestion management program would be considered less than significant. No mitigation is required.

- Traffic (Impact 3.12-3, Air Traffic) –

  Pipelines and Wells (Near-Term and Long-Term). Multiple long-term pipelines, one short-term pipeline (FF-01), and long-term wells FW-04 and FW-05 would be located within the airport influence area (AIA) associated with the Palmdale Regional Airport. Construction of the pipelines would not require substantially large or tall equipment that would interfere with air flight overhead. Construction of the wells could require large pieces of construction equipment such as cranes that could pose temporary safety hazards to aviation within the AIA. However, well construction would not change traffic patterns that would potentially impact air traffic safety. During operation, pipelines would be located belowground and wells would be enclosed in well housing just above the ground surface and would thus not involve permanent structures that could interfere with air traffic. Impacts related to changes in air traffic patterns would be less than significant. No mitigation is required

  All Other Facilities (Near-Term and Long-Term). All other facilities besides the near-term and long-term pipelines would not be located within the AIA. Storage tanks, pumps, the groundwater wells located in the eastern portion of PWD's service area, and the headquarters expansion are not of substantial size that they would disrupt air traffic patterns. Long-term wells would require nighttime lighting during construction, and near-term and long-term storage tanks and pump stations may require permanent exterior nighttime lighting. Although these facilities would introduce light to the project area, these facilities would not be in the AIA and thus would not likely interfere with airport lighting used for landing. Impacts related to changes in air traffic patterns would be less than significant. No mitigation is required.

- Traffic (Impact 3.12-4, Hazards) –

  All Facilities (Near-Term and Long-Term). The project would not involve any roadway improvements or alterations, and would thus not increase hazards due to a design feature like a sharp curve or dangerous intersections. The project would involve the hauling of heavy construction equipment. The use of oversize vehicles during construction could be an incompatible use and can create a hazard to the public by limiting motorist views on roadways by the obstruction of space. However, oversize loads associated with construction of the project would be required to comply with applicable CVC and Caltrans requirements applicable to licensing, size, weight, load, and roadway encroachment of construction vehicles. Further, Mitigation Measure TR-1, required by a separate impact statement, would require the use of traffic counts to recommend construction-related oversize haul routes in the Traffic Control/Traffic Management Plan prepared for the project. Compliance with regulatory requirements to reduce hazards caused by incompatible roadway uses during construction and compliance with Mitigation Measure TR-1 would minimize the potential for hazards to other vehicles to less than significant levels. No mitigation is required.

- Utilities and Energy (Impact 3.14-1, Wastewater Treatment Requirements) –

  All Facilities (Near-Term and Long-Term). During construction of all of all project facilities, a minimal amount of wastewater would be generated by construction workers and collected by portable toilet facilities. All waste generated in portable toilets would be collected by a

County-permitted portable toilet waste hauler and appropriately disposed of at one of the County identified liquid waste disposal stations. These waste disposal stations have been appropriately permitted by the Regional Water Quality Control Board (RWQCB). During operation of the majority of project components, the facilities would store, distribute or extract potable water within the PWD service area and would not require any full time resident employees or water for operation. The PWD headquarters expansion would tie into existing permitted connections at the PWD headquarters site and is not expected to result in a substantial increase in employees that would augment baseline wastewater generation. As a result, operation would not generate a substantial increase in wastewater and would not exceed wastewater treatment requirements. Impacts related to the exceedance of wastewater treatment requirements would be less than significant. No mitigation is required.

- Utilities and Energy (Impact 3.14-3, Stormwater Drainage Facilities) –

  All Facilities (Near-Term and Long-Term). Stormwater drainage facilities are not included as part of the WSMP. The construction of the aboveground components, like storage tanks, pump stations, well houses, and the PWD headquarters building expansion may require onsite drainage features; however, these are built into the project design and included as part of the project. There would be no substantial increase in runoff from project sites that would lead to a requirement for expanding offsite storm water drainage facilities. During operation, the facilities would not include any component that would generate excessive runoff. Therefore, impacts to stormwater drainage facilities would be less than significant. No mitigation is required.

- Utilities and Energy (Impact 3.14-4, Water Supplies) –

  All Facilities (Near Term and Long-Term). Operation of the majority of the WSMP facilities would store, distribute and extract potable water to various end users within the PWD service area. The PWD headquarters expansion would tie into existing permitted connections at the PWD headquarters site and is not expected to result in a substantial increase in employees that would generate additional demand for water onsite for bathrooms or kitchens. As such, there would be no need for expanded water supply entitlements. Impacts would be less than significant. No mitigation is required.

- Utilities and Energy (Impact 3.14-5, Wastewater Treatment Capacity) –

  All Facilities (Near-Term and Long-Term). Implementation of all project facilities would result in construction and operation of potable water facilities. The majority of the WSMP facilities would not store, convey, or produce wastewater or recycled water and would therefore not generate any wastewater or recycled water. The PWD headquarters expansion would tie into existing connections at the PWD headquarters site and would not result in a substantial increase in employees to support the WSMP. As a result, operation of the expansion would not generate additional wastewater above the baseline condition that would require an increase in wastewater treatment capacity. Therefore, the project would not result in a determination by LACSD, as one of the providers of wastewater treatment and recycled

water within the project area, that it has inadequate wastewater treatment capacity to serve the project; impacts would be less than significant. No mitigation is required.

- Utilities and Energy (Impact 3.14-7, Compliance with Solid Waste Regulations and Statutes) –

  All Facilities (Near-Term and Long-Term). The project facilities would not generate solid waste during operation. Therefore, the project would comply with all applicable solid waste regulations, and impacts would be less than significant. No mitigation is required.

- Utilities and Energy (Impact 3.14-8, Energy) –

  All Facilities (Near-Term and Long-Term). Construction of the near-term and long-term project components would require the temporary use of construction equipment, which would likely be diesel-fueled. Construction of all project components would have minimal demand for gasoline and diesel resources relative to the State's annual fuel usage. There would be adequate capacity for the State's gasoline and diesel fuel resources to serve the project. As such, construction of the project would not affect local and regional energy supplies. In addition, the future long-term projects may be required to meet even more stringent emissions and fuel economy standards. Therefore, the temporary construction energy impacts of the near-term and long-term project components would be less than significant. No mitigation is required.

  Operation of the project may slightly increase PWD's electricity purchases from Southern California Edison (SCE); however, it is not anticipated that additional power generation facilities would be required to serve the facilities, or that the demand would exceed the electrical capacity of SCE. PWD would continue to work closely with electricity and natural gas providers to ensure consumption is not wasteful and can be handled by the electricity grid. Therefore, operation of the near-term and long-term facilities would result in less than significant impacts to regional energy supplies and energy consumption. No mitigation is required.

- Utilities and Energy (Impact 3.14-9, Compliance with Energy Efficiency Standards) –

  All Facilities (Near-Term and Long-Term). The project would utilize construction contractors who demonstrate compliance with applicable state regulations governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. Compliance with these regulations would reduce the inefficient, wasteful, and unnecessary consumption of construction equipment energy demand. Construction of the project would not conflict with applicable energy efficiency policies or standards. Therefore, impacts would be less than significant. No mitigation is required.

  Management strategies would be implemented to lessen the impact on local power supply providers while also supporting policies of the California Energy Action Plan II to reduce the State's overall energy users. Specifically, the California Energy Action Plan II includes the Energy Efficiency Key Action #14. The project would be consistent with Key Action #14 as

the project would include energy efficient equipment such as system pumps and lighting to minimize energy impacts. Facilities would also be scheduled to operate as much as possible during off-peak energy demand periods in accordance with PWD's energy plan for off-peak pumping. Additionally, PWD has developed alternatives for providing electrical generation using wind, hydraulic, natural gas and sun resources, which could be used to promote energy efficiency throughout PWD's operations. These energy efficiency measures would reduce the overall energy requirements associated with all facilities included in the project. Operation of the project would not conflict with applicable energy efficiency policies or standards. Therefore, impacts would be less than significant. No mitigation is required.

5.2.1 Cumulative Impacts

Cumulative impacts to mineral resources, utilities, service systems and energy would be less than significant, and no mitigation measures would be required.

All other cumulative impacts would have no impact (see section 5.1.1 above), less than significant impacts with mitigation (see section 5.3.12 below), or potentially significant and unavoidable impacts (see section 5.4.1 below).

5.3 Findings Regarding Significant but Mitigable Impacts

PWD makes the Findings below in accordance with *CEQA Guidelines*, subdivision 15091 (a)(1): Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant effects on the environment. Distinctions are made below for the near-term project facilities, which are analyzed at a project-level in the Final PEIR, and the long-term project facilities, which are analyzed at the programmatic level in the Final PEIR.

In the event there is any inconsistency between the descriptions of mitigation measures in these Findings or the MMRP and the Final PEIR, the PWD will implement the measures as they are described in the Final PEIR. In the event a mitigation measure recommended in the Final PEIR has inadvertently been omitted from these Findings or from the MMRP, such a mitigation measure is hereby adopted and incorporated in the Findings and/or MMRP as applicable.

5.3.1 Aesthetics

Scenic Vistas

Impact 3.1-1: Near-term storage tanks, long-term storage tanks, and long-term expansion of the PWD Headquarters could obstruct views of distant mountains, diminish the scenic value of hillsides, or would otherwise be located near City-designated highways and therefore subject to special design standards. Measures that require landscape plans to restore disturbed areas by replanting trees and/or reseeding with native seed mix, and site-specific vegetation screening and color palettes for aboveground facilities would be used to reduce impacts associated with scenic vistas to a less than significant level. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). The near-term storage tanks (ES-01, FS-01, ES-03) would be implemented within undeveloped areas in the City of Palmdale and within unincorporated portions of Los Angeles County just west and south of the City of Palmdale boundary. Storage tank ES-01 would be constructed on open, undeveloped land approximately 500 feet west of PWD's western service area boundary. The storage tank would have a footprint of 4,536 square feet, and would be 30 feet tall. Storage tank FS-01 would be constructed on open, undeveloped land approximately 1,700 feet west of PWD's western service boundary. The storage tank would be located approximately 3,000 feet west of the nearest residence, would have a footprint of 3,421 square feet, and would be 30 feet tall. Storage tank ES-03 would be constructed on open, undeveloped land within PWD's service area, near the intersection of Sierra Highway and Rae Street. The storage tank would be located approximately 1,950 feet southeast of the nearest residence, would have a footprint of 18,627 square feet, and height of 30 feet (Tank ES-03 would be the largest near-term tank).

Mitigation Measure AES-1 would require a landscape plan for the storage tanks to screen facilities from public view. Additionally, **Mitigation Measure AES-2** would design the storage tanks to have color palettes that blend in with the surrounding character of the site and would minimize contrasting features in the visual landscape. The design of the storage tanks and implementation of landscape plans required under **Mitigation Measures AES-1 and AES-2** would minimize contrasting features within the immediate project areas; therefore, impacts would be considered less than significant.

Storage Tanks (Long-Term). Additionally, a total of 16 storage tanks could be constructed over the project's long-term planning period. The locations of these long-term storage tanks are subject to change in the future, but currently, there are multiple storage tanks planned to be located within undeveloped land and/or hillsides. The near-term and long-term storage tanks would be large, visible structures that may appear substantially different than the existing open space land uses in the immediate vicinity and/or obstruct scenic views of the surrounding hillsides, resulting in significant impacts. **Mitigation Measure AES-1** and **AES-2** would require site-specific vegetative screening and would design the storage tanks to have color palettes that blend in with the surrounding character of the site. These measures would minimize contrasting features in the visual landscape. The design of the storage tanks and implementation of landscape plans would minimize contrasting features within the immediate project areas.

Headquarters Expansion (Long-Term). Construction of the PWD headquarters expansion building (long-term planning period) would consist of demolition of existing buildings at the corner of E. Avenue Q and 20th Street in Palmdale and a 21,000 square foot addition to the headquarters building. The building to be constructed would be one story in height and would be constructed on land currently owned by PWD. The existing PWD headquarters is surrounded by one- to two-story commercial uses. The headquarters expansion building would replace an existing one-story building at the site. **Mitigation Measure AES-2** would require design of the headquarters expansion building to have color palettes that blend in with the surrounding character of the site and would minimize contrasting features in the visual landscape. The design

of the headquarters expansion building required under **Mitigation Measure AES-2** would minimize contrasting features within the immediate project areas

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.1-1 to a less than significant level:

AES-1*:* During project design, a landscape plan shall be prepared for proposed storage tanks that affect scenic resources. The landscape plan shall include measures to restore disturbed areas by replanting trees and/or reseeding with a native seed mix typical of the surrounding area. Vegetation screening shall also be included in order to assist in shielding the proposed aboveground facilities from public vantage points.

AES-2*:* Aboveground buildings/structures shall be designed to have color palettes and vegetation screening as necessary to blend with the surrounding character of the site and to minimize contrasting features in the visual landscape.

Visual Character

Impact 3.1-3: Near-term storage tanks, long-term storage tanks, long-term pumps, long-term wells, and long-term expansion of the PWD Headquarters could contrast with the existing visual character or quality of the project sites or surrounding project areas. Measures that require all aboveground buildings/structures to be designed to have similar aesthetic qualities to existing structures in the vicinity would be implemented to minimize contrasting features on the visual landscape to less than significant levels. Mitigation measures AES-1 and AES-2 would also be implemented to reduce impacts to visual character or quality. This impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). The near-term storage tanks would be implemented within undeveloped areas in the City of Palmdale and within unincorporated portions of Los Angeles County just west of the City of Palmdale boundary. The storage tanks would introduce features in the landscape that would contrast with the visual character in the immediate areas. architectural and color elements of the storage tanks would be designed to blend in with the surrounding landscape and fit in with the visual character of the area. Further, implementation of **Mitigation Measure AES-1** and **AES-2** would apply to the storage tanks and would partially screen storage tanks from public view. Implementation of design features together with the landscape plan required by **AES-1** would minimize contrasting features in the immediate vicinity of the tank sites.

Storage Tanks (Long-Term). The WSMP proposes the implementation of a number of long-term storage tanks within undeveloped areas, which could introduce features in the landscape that contrast with the visual character of these undeveloped areas and potentially remove desert vegetation that is a notable characteristic of the area. All storage tanks would be designed to blend in with the surrounding landscape and fit in with the visual character of the area. Further, implementation of **Mitigation Measure AES-1** and **AES-2** would partially screen tanks from public view.

Pumps (Long-Term). The WSMP proposes the implementation of six new pump stations during the long-term planning period that would generally be single-story buildings with heights of 10 to 15 feet. These five new pump stations could potentially contrast with the existing visual character of the project area. Although the locations are preliminary and subject to change, the identified locations include undeveloped land located in areas designated for low-density and single family residential uses. Architectural and color elements of the new pump stations would be designed to blend in with the surrounding landscape and fit in with the visual character of the area. Additionally, Mitigation Measure AES-2 would require vegetative screening as necessary to blend that pump housing with the surrounding character of the site. Further, **Mitigation Measure AES-3** requires all aboveground buildings/structures to be designed to have similar aesthetic qualities to existing structures in the vicinity to minimize contrasting features in the visual landscape.

Wells (Long-Term). The WSMP proposes the implementation of long-term groundwater wells that would generally be housed within single-story buildings, with heights of 10 to 15 feet. The wells would be located in the northern and northeastern portion of the PWD service area, in undeveloped areas near industrial facilities and the Palmdale Regional Airport (north) and just east of developed land containing a high school and residential land uses (east). These wells could be visible momentarily from public vantage points when traveling along roadways and sidewalks All aboveground well housing units would be designed to minimize contrasting features and blend with the surrounding landscape. Implementation of **Mitigation Measures AES-2** and **AES-3** would screen well housing from public view and require similar aesthetic qualities to existing structures in the general vicinity.

The PWD headquarters expansion building would be constructed adjacent to the existing headquarters which is located in a built-up commercial area of Palmdale. The one-story headquarters expansion building would be visible from public vantage points along 20th Street and E. Avenue Q. Implementation of **Mitigation Measure AES-3** would require the building to have similar aesthetic qualities to existing structures in the vicinity.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.1-3 to a less than significant level:

Implement **Mitigation Measure AES-1**.

Implement **Mitigation Measure AES-2**.

AES-3: Aboveground buildings/structures shall be designed to have similar aesthetic qualities to existing structures in the vicinity to minimize contrasting features in the visual landscape.

Light or Glare

Impact 3.1-4: Near-term storage tanks, long-term storage tanks, long-term pumps, long-term wells, and long-term expansion of the PWD Headquarters could result in significant impacts associated with light and glare. Measures that require all new permanent exterior lighting to be shielded and directed downward to avoid light spill; measures that require aboveground facilities

to be designed to include non-glare exterior materials and coatings to minimize glare or reflection; and measures that require lighting used during nighttime construction to be shielded and pointed away from surrounding light sensitive uses would be implemented to reduce potentially significant impacts associated with light or glare to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term, Long-Term). The near-term and long-term storage tanks would be located within undeveloped land in between residential areas and on hillsides along the southern boundary of the project area. Some of these tanks would be located adjacent to existing PWD facilities such as pump stations, other storage tanks, and pipelines. Near-term storage tanks would be located between 900 to 3,000 feet away from the closest sensitive receptors (residential), while some long-term tanks, such as FS-14 would be located as close as 350 feet away from the closest residence. Storage tank design may require new exterior nighttime lighting for operational and security purposes. The increase in lighting could result in spill over lighting onto neighboring parcels. Due to the topography of the surrounding areas and largely undeveloped land, the storage tanks may include lighting that could be visible by the nearest residences. Implementation of **Mitigation Measure AES-4** would require any permanent lighting on buildings/structures to be shielded and directed downward to avoid light intrusion onto surrounding land uses.

Once constructed, building materials could create sources of glare during various times of the day. Implementation of **Mitigation Measure AES-5** would ensure the storage tanks are designed to minimize glare or reflection, including non-glare exterior materials or coatings.

Pumps (Long-Term). A total of seven new pumps at five existing pump stations, and six new pump stations would be constructed in the project area during the long-term planning period of the WSMP. The new pump stations would include new pump housing units, which are generally single-story buildings, with heights of 10 to 15 feet. The new pump station housing units may be designed with outdoor lighting for operational and security purposes. The new lighting could spill over onto neighboring parcels or be visible from surrounding sensitive receptors. Implementation of **Mitigation Measure AES-4** would require any permanent lighting on buildings/structures to be shielded and directed downward to avoid light intrusion. Implementation of **Mitigation Measure AES-5** would ensure the pump station housing units are designed to minimize glare or reflection.

Wells (Long-Term). Construction of long-term wells would require 24-hour drilling and, as such, nighttime construction lighting. With implementation of **Mitigation Measure AES-6**, nighttime construction lighting would be shielded and pointed away from surrounding light-sensitive land uses. Further, once wells are constructed, implementation of **Mitigation Measure AES-5** would ensure that well housing would be designed to minimize glare or reflection.

Headquarters Expansion (Long-Term). The PWD headquarters expansion building would be constructed during the long-term planning period in a commercial area of Palmdale adjacent to existing buildings and a 4-way public intersection. The building may require new exterior nighttime lighting for operational and security purposes. The increase in lighting could result in spill over lighting onto neighboring parcels. There are no residences located nearby.

Nevertheless, implementation of **Mitigation Measure AES-4** would require any permanent lighting on the headquarters expansion buildings to be shielded and directed downward to avoid light intrusion onto surrounding land uses. Additionally, building materials could create sources of glare during various times of the day. Implementation of **Mitigation Measure AES-5** would ensure the headquarters expansion building is designed to minimize glare or reflection, including non-glare exterior materials or coatings.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.1-4 to a less than significant level:

AES-4: All new permanent exterior lighting associated with proposed WSMP components shall be shielded and directed downward to avoid light spill onto neighboring parcels and visibility from surrounding public vantage points.

AES-5: The proposed WSMP aboveground facilities shall be designed to include non-glare exterior materials and coatings to minimize glare or reflection.

AES-6: Lighting used during nighttime construction, including any associated 24-hour well drilling, shall be shielded and pointed away from surrounding light-sensitive land uses.

5.3.2 Air Quality and Greenhouse Gas Emissions

Air Quality Standards/Violations

Impact 3.3-2: Construction of all Long-Term facilities could result in significant impacts associated with AVAQMD emissions thresholds. Measures that require minimizing NOx emissions associated with construction activities, and measures that require construction contract specifications aimed at reducing construction-related emissions would be implemented to reduce potentially significant impacts associated with air quality standards/violations to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Long-Term). Long-term projects that would be of similar size, construction duration, and construction equipment mix as evaluated under the near-term would not be expected to generate regional daily construction emissions in excess of the regional daily construction emissions thresholds, and impacts would be less than significant, and no additional analysis or mitigation measures would be required. However, long-term projects that are substantially larger in size and scale could result in daily pollutant emissions that are above AVAQMD's significance thresholds, and would be required to implement **Mitigation Measures AQ-1 and AQ-2**. For each project implemented under long-term phases of the project, implementation of Mitigation Measures AQ-1 and AQ-2 would reduce construction-related emissions to below significance thresholds. Therefore, this impact is less than significant with mitigation.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.3-2 to a less than significant level:

AQ-1: The following mitigation measures shall be incorporated to minimize emissions of NOx associated with construction activities for the proposed project:

- Construction activities shall require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) to the extent feasible.

- Off-road diesel-powered construction equipment greater than 50 horsepower shall meet Tier 3 emissions standards, including Level 3 CARB-Certified diesel particulate filters at a minimum and Tier 4 for equipment makes and models that are commercially available within the Mojave Desert Air Basin.

AQ-2: For each individual project, PWD shall require by contract specifications that:

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for a period of five minutes or more to avoid excessive idling.

- Construction activities shall minimize use of diesel-powered generators and rely on the electricity infrastructure where appropriate power requirements are available without the need to construct additional infrastructure.

- Construction trucks shall be routed along haul routes minimize travel adjacent to sensitive receptor areas where feasible.

Cumulative Increase of Criteria Pollutant

Impact 3.3-3: Construction of all Long-Term facilities could result in significant impacts associated with a cumulative increase of criteria pollutants. Measures that require minimizing NOx emissions associated with construction activities, and measures that require construction contract specifications aimed at reducing construction-related emissions would be implemented to reduce potentially significant impacts associated with criteria pollutants to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Long-Term). Individual projects to be implemented under the long-term phase of the project may require intensive construction efforts, particularly if future projects larger than those evaluated under the near-term are proposed. Therefore, the daily construction emissions generated by long-term projects could potentially exceed AVAQMD's significance thresholds. Long-term projects that could result in a cumulatively considerable net increase of any criteria pollutant would be required to implement **Mitigation Measures AQ-1** and **AQ-2**. For each project implemented under long-term phases of the project, implementation of **Mitigation Measures AQ-1** and **AQ-2** would reduce construction-related emissions to below significance thresholds. Therefore, cumulative air quality impacts associated with construction-related pollutant emissions from the long-term phase of the project, in conjunction with other past, current, and probable future projects, would not be cumulatively considerable, and cumulative impacts would be less than significant with mitigation.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.3-3 to a less than significant level:

Implement **Mitigation Measure AQ-1**

Implement **Mitigation Measure AQ-2**

Sensitive Receptors

Impact 3.3-4: Construction of all Long-Term facilities could result in significant impacts to sensitive receptors. Measures that require minimizing NOx emissions associated with construction activities, and measures that require construction contract specifications aimed at reducing construction-related emissions would be implemented to reduce potentially significant impacts to sensitive receptors to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Long-Term). While details regarding future long-term projects are not known, if future projects of substantially larger size and scale (i.e., substantially greater daily area of disturbance, daily intensity of construction schedule, and number, type, and usage of construction equipment) and that are located adjacent to sensitive receptors are proposed, the construction TAC emissions generated by these projects could potentially result in greater daily emissions that may exceed AVAQMD's significance thresholds. Long-term projects that could emit pollutants above significance thresholds would be required to implement **Mitigation Measures AQ-1** and **AQ-2**. Implementation of these measures would substantially reduce construction-related TAC emissions. Therefore, long-term project facility impacts to sensitive receptors would be less than significant with mitigation.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.3-4 to a less than significant level.

Implement **Mitigation Measure AQ-1**

Implement **Mitigation Measure AQ-2**

5.3.3 Biological Resources

Effect on Species

Impact 3.4-1: Four special-status plant species and 18 special-status wildlife species have the potential to occur in Near-Term and Long-Term WSMP facility areas and therefore have the potential to be significantly impacted by implementation of WSMP facilities. Measures that require pre-construction plant surveys, pre-construction reptile surveys, nesting bird surveys, and burrowing owl surveys would be implemented to reduce potentially significant impacts to sensitive receptors to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). Suitable habitat for special-status plants (slender mariposa lily, Robbins' nemacladus, short-joint beavertail, and Mason's neststraw) and wildlife (silvery legless lizard, coast horned lizard, southern California rufous-crowned sparrow, burrowing owl, and loggerhead shrike) is located at the near-term storage tanks ES-01, ES-03, and FS-01. In addition, suitable habitat for Mojave ground squirrel, desert tortoise, American badger, and desert kit fox may be present within the project area. Construction of the storage tanks could impact special-status plant and wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. Implementation of **Mitigation Measures BIO-1 through BIO-4d** would require pre-construction focused surveys for rare plants and special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife; a Worker Education Awareness Program (WEAP); wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Storage Tanks (Long-Term). A total of 16 storage tanks could be constructed over the project's long-term planning period. However, locations for the long-term storage tanks are subject to change in the future. Multiple storage tanks such as FS-06 and FS-08 would be located within undeveloped land; therefore, it is possible that the construction of the storage tanks could impact special-status plant and wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. Implementation of **Mitigation Measures BIO-1 through BIO-4d** would require pre-construction focused surveys for rare plants and special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife; a WEAP; wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pumps (Long-Term). The project includes four new pumps at five existing pump stations, as well as six new pump stations within the project area. Although locations are preliminary in nature, the new pump stations may be located in undeveloped land; therefore, it is possible that the construction of the pump stations could impact special-status plant and wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. Implementation of **Mitigation Measures BIO-1 through BIO-4d** would require pre-construction focused surveys for rare plants and special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife; a WEAP; wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pipelines (Near-Term). The majority of the near-term pipelines are sited within or adjacent to existing roads and would not require the removal of vegetation for construction; however, Pipeline along 47th Street East, Pipeline along Sierra Highway, and Pipeline west of Lakeview Drive are within or adjacent to undeveloped areas. Suitable habitat for special-status plants (slender mariposa lily, Robbins' nemacladus, short-joint beavertail, and Mason's neststraw) and wildlife (silvery legless lizard, coast horned lizard, southern California rufous-crowned sparrow,

burrowing owl, and loggerhead shrike) is present. In addition, suitable habitat for Mohave ground squirrel, desert tortoise, American badger, and desert kit fox may be present. Construction of the pipelines could impact special-status plant and wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. **Implementation of Mitigation Measures BIO-1 through BIO-4d** would require pre-construction focused surveys for rare plants and special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife; a WEAP; wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pipelines (Long-Term). The majority of the long-term pipelines are sited within or adjacent to existing roads and would not require the removal of vegetation for construction. Any pipelines that are sited within undeveloped areas could impact special-status plant and wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. Implementation of **Mitigation Measures BIO-1 through BIO-4d** would require pre-construction focused surveys for rare plants and special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife; a WEAP; wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area. The northern two wells would be located in open space near industrial facilities and the Palmdale Regional Airport. Based on the predominately agricultural and semi-desert vegetation surrounding these northern wells and previously documented species occurrences, this area could support coast horned lizard, burrowing owl, and loggerhead shrike. The northeastern three wells would be located in an undeveloped area just east of developed land containing a high school and residential land uses. The area has habitat that could support silvery legless lizard, coast horned lizard, burrowing owl, and loggerhead shrike. It is possible that the construction of the wells could impact special-status wildlife species that have the potential to occur in the project area. Any impacts to special-status species would be considered significant without mitigation. Implementation of **Mitigation Measures BIO-2 through BIO-4d** would require pre-construction focused surveys for special-status reptiles; nesting bird surveys; protocol burrowing owl surveys; habitat assessments and potential surveys for special-status wildlife, a WEAP; wildlife entrapment protocols and rodenticide prohibitions. With the implementation of these measures, impacts would be reduced to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.4-1 to a less than significant level:

BIO-1: Pre-Construction Focused Surveys for Rare Plants: The following measures are recommended to avoid and/or reduce potential impacts to special-status plants as a result of proposed project activities for near-term project components and long-term projects in undeveloped portions of the project area with suitable habitat. The preconstruction surveys for special-status plants shall follow CDFW's recent updated

Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018).

- A floristic survey for special-status plant species having potential to occur within and adjacent to the project area should be conducted by a qualified biologist for the aforementioned near-term project components and the long-term project components that are located in the San Andreas Rift Zone and the hilly topography south of it. The surveys shall cover the blooming period of all special-status plant species having potential to occur. The results of the survey should be documented in a report that will be submitted to CDFW.

- If the floristic survey is positive for any of the four special-status plant species (slender mariposa lily, Robbins' nemacladus, short-joint beavertail, and Mason's neststraw), or any other sensitive plant species, and the avoidance of the special-status plant species is not feasible, coordination with CDFW would be required to determine suitable mitigation. The mitigation strategy may include avoidance, on-site or off-site restoration/enhancement areas, translocation, and/or seed collection, and exotic weed control. Restoration/enhancement areas for special-status plant species should be situated adjacent to protected open space and not result in isolated islands of habitat. If restoration and/or translocation are needed, a restoration/revegetation plan must be prepared and approved by CDFW. At a minimum, the plan should include a description of the existing conditions, site selection criteria, site preparation and planting methods, maintenance and monitoring schedule, performance standards, adaptive management strategies, contingency actions should success criteria not be met, identification of responsible parties, and a sufficient funding mechanism to assure that management and reporting requirements occur in perpetuity.

BIO-2: Pre-Construction Focused Surveys for Special-status Reptiles: The following measures are recommended to avoid and/or reduce potential impacts to special-status reptiles (coast horned lizard and silvery legless lizard) as a result of proposed project activities on the aforementioned near-term project components and in portions of the project area with suitable habitat for the species:

- A qualified biologist should conduct a preconstruction clearance survey throughout proposed impact areas for silvery legless lizard and coast horned lizard. If individuals are observed within or near the project work areas during preconstruction clearance surveys or construction monitoring, a qualified biologist should relocate the individuals to suitable habitat outside of the proposed impact areas so that construction-related impacts are avoided.

- A qualified biologist should monitor the removal of vegetation to confirm special-status species are not impacted.

- Prior to the commencement of construction activities, construction personnel should check under stationary equipment to confirm no wildlife species are present.

- All trash should be collected daily and taken offsite for proper disposal.

BIO-3: Nesting Bird Surveys: If project activities occur within the bird nesting season (generally defined as February 1st through August 31st), a qualified biologist should

conduct a nesting bird survey within two weeks of the anticipated start date to identify any active nests within 300 feet of impact areas for most bird species, but 500 feet for raptors. If an active nest is found, the nest should not be impacted and project activities should be conducted as recommended by the biologist to avoid the nest, such as implementation of suitable buffer zones or postponing construction until the young have fledged and are no longer associated with the nest. A common nest buffer for most bird species is 300 feet, whereas raptors may require a buffer up to 500 feet; however, avoidance buffers may be reduced within urban areas, where appropriate, at the discretion of the biologist.

BIO-4: Protocol Burrowing Owl Surveys: There is marginal breeding/wintering habitat for the species at the following near-term project components: ES-01, FS-01, ES-03, Pipeline FF-05, FF-06, the Pipeline along 47th Street East, and the Pipeline west of Lakeview Drive. A burrowing owl habitat assessment using CDFW protocols (CDFW 2012) should be conducted by a qualified biologist for these near-term project components and any long-term project component that is located within areas that are determined to have potential to support the species. For the near-term and long-term project components in areas that are assessed as having potential habitat to support burrowing owl, presence/absence surveys will be conducted per CDFW protocol (CDFW 2012), as follows:

- Four site visits are necessary to complete the protocol. For breeding season surveys, at least one site visit will be conducted between February 15 and April 15, and a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after 15 June. The initial survey will consist of the project site and a buffer of 150 meters, where access is available, that will be covered by qualified biologists using transects spaced seven to 20 meters apart, adjusting for vegetation height and density. All potential burrows used by burrowing owl as determined by the presence of one or more burrowing owls, pellets, prey remains, whitewash, or decoration will be mapped using a GPS device. Follow up surveys will then check any burrows that have been mapped. If conducting non-breeding season surveys, the same methods for breeding season surveys, but the three follow up visits will be spread evenly throughout the nonbreeding season.

- If the surveys are positive for the presence of burrowing owl, CDFW will be consulted on how to proceed to avoid and minimize potential project-related impacts to this species. Mitigation and avoidance measures may include no-work buffers and/or seasonal limitations for burrows that cannot be avoided. Burrowing owl artificial burrow and exclusion plans are a potential option for burrows that would be directly impacted by project activities.

BIO-4a: Pre-construction Habitat Assessment. Prior to ground disturbing activities for near-term storage tanks and pipelines and all long-term project components, a habitat assessment shall be conducted by a qualified biologist to determine the potential for the following special-status wildlife species to occur within project areas: Mohave ground squirrel, desert tortoise, desert kit fox, and American badger. If the habitat assessment determines there is potential for one of the special-status species to be present within a certain buffer of the construction zone, then additional measures shall be implemented as described below. For Mohave ground squirrel and desert tortoise, focused surveys shall be conducted prior to project implementation to determine presence or absence. If

the habitat assessment determines there is no potential to occur, then no further mitigation is required.

- **Mohave ground squirrel** - Wherever the project is occurring in areas containing suitable Mohave ground squirrel habitat, CDFW-protocol surveys for Mohave ground squirrel shall be conducted to determine presence/absence, which shall include a 100-foot buffer surrounding the limits of disturbance; or presence may be assumed and PWD shall pay an in-lieu fee to a CDFW-approved conservation area, such as an established mitigation bank. The mitigation ration of in-lieu fee amount shall be determined through consultation with CDFW prior to any ground-disturbing activities. If surveys are conducted and presence is confirmed, an incidental take permit shall be obtained prior to any ground-disturbing actives from CDFW in accordance with Section 2081 of the California Fish and Game Code.
- **Desert tortoise** - Wherever the project is occurring in areas containing suitable desert tortoise habitat, surveys shall be conducted in accordance with the latest USFWS protocols. If desert tortoise is confirmed present, then PWD shall consult with CDFW to obtain California Endangered Species Act authorization and, if necessary, an incidental take permit prior to any ground disturbance that may impact occupied desert tortoise habitat during the life of the project. Once potential habitat is cleared of desert tortoise, or if surveys are negative, exclusionary silt fencing shall be installed around the project impact area to prevent animals from wandering onto the project site. The limits of the silt fencing shall be determined by a CDFW and/or USFWS-approved biologist to determine the maximum potential for exclusion. The fencing shall be buried a minimum of 10-inches below the ground surface to reduce the potential for animals to move onto the project site.
- **American badger and desert kit fox** - If the habitat assessment identifies signs of occupation by American badger and/or desert kit fox (e.g., occupied or potential dens), the following measures should be implemented:

  – If species individuals area found to be present, the project area shall be avoided until the individuals are no longer present. Individuals shall be allowed to leave on its own without being harassed. If an individual does not vacate the project site, PWD would be required to coordinate with CDFW to determine the appropriate relocation methods, location, and timing.

  – If dens and signs of presence are found but no species individuals are found, a qualified biologist shall confirm the dens are no longer active. To prevent any species from entering the project site in the future, PWD and the construction contractor shall install exclusionary fencing around the project site, if feasible. A clearance survey shall be conducted prior to the restart of construction to confirm no species are present. Periodic monitoring shall be performed by a qualified biologist based on a frequency determined through consultation with CDFW.

  – PWD and the construction contractor shall follow protocols included in Mitigation Measure BIO-4c to prevent wildlife entrapment at project sites.

BIO-4b: Worker Environmental Awareness Program. PWD shall be required to prepare a Worker Environmental Awareness Program (WEAP) that identifies methods for avoiding inadvertent impacts to special-status wildlife, plants and native vegetation communities that have the potential to occur in the project area. The WEAP shall include a meeting facilitated by a qualified biologist and attended by all construction personnel that describes the special-status species that could occur, measures and techniques for avoiding impacts, communication protocol, stop-work thresholds, and enforcement authorities and actions should a sensitive-status species be inadvertently impacted at any point during construction activities.

BIO-4c: Wildlife Entrapment. During construction of all near-term and long-term components, all trenches, pits or other depressions that are not in active use be backfilled or covered immediately after use to prevent wildlife entrapment. Additionally:

- A qualified biological monitor should inspect all depressions prior to backfilling to salvage any entrapped species observed.
- If depressions cannot be immediately backfilled or covered, a qualified biological monitor should periodically inspect the depressions to remove any entrapped species. The frequency of inspection of depressions by the biological monitor would be dependent on ambient temperature and precipitation conditions because high heat levels or flooding may result in mortality of entrapped wildlife.
- Depressions that cannot be immediately back filled or covered should be provided with escape ramps that could allow some mobile entrapped wildlife to escape.
- All stockpiled pipe interiors should be inspected for wildlife presence by a qualified biological monitor immediately prior to pipe laying. Any wildlife observed seeking refuge inside a pipe should be safely evicted.
- Open-ended terminal pipes within any pipeline laying operation should be temporarily sealed if left unattended, to prevent wildlife from entering and becoming entrapped.
- Handling of California Endangered Species Act-listed species entrapped in depressions shall only occur by entities possessing an Incidental Take Permit for that species.

BIO-4d: Prohibition of Anticoagulant or Rodenticides. The use of anticoagulants and rodenticides that could result in secondary poisoning or other mortality of non-target species including but not limited to American badger and desert kit fox is prohibited during the life of the project and future project maintenance activities.

Riparian Habitat and Sensitive Natural Communities

Impact 3.4-2: Riparian habitat, jurisdictional waters, and several sensitive natural communities have to potential to occur in Near-Term and Long-Term WSMP facility areas, and therefore have the potential to be significantly impacted by implementation of WSMP facilities. Measures that require jurisdictional waters delineation and state permitting and native desert vegetation removal permitting would be implemented to reduce potentially significant impacts to riparian habitat and sensitive natural communities to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Long-Term). Multiple storage tanks such as FS-06 and FS-08 would be located within undeveloped land; therefore, it is possible that the construction of the storage tanks could impact riparian habitat and jurisdictional water features that are regulated by the CDFW. Additionally, long-term storage tanks have the potential to be located in one of the multiple sensitive natural communities present in the project area. Implementation of **Mitigation Measure BIO-5** would require siting of long-term storage tanks to either avoid impacts to jurisdictional waters and associated riparian habitat or obtain the appropriate regulatory approvals if such impacts cannot be avoided. Implementation of **Mitigation Measure BIO-6** would require either avoidance of native desert vegetation (including CDFW sensitive natural communities) or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of these measures, impacts would be less than significant.

Storage Tanks (Near-Term). Storage tank FS-01 would be located within juniper woodland habitat, which is considered a CDFW sensitive natural community. Implementation of **Mitigation Measure BIO-6** would require either avoidance of California juniper habitat or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of this measure, impacts would be less than significant.

Pumps (Long-Term). Although locations are preliminary in nature, the new pump stations may be located in undeveloped land; therefore, it is possible that the construction of the pump stations could impact jurisdictional waters and associated riparian habitat. Further, long-term pumps have the potential to be located in one of the multiple sensitive natural communities present in the project area. Implementation of **Mitigation Measure BIO-5** would require siting of long-term pumps to either avoid impacts to jurisdictional waters and associated riparian habitat or obtain the appropriate regulatory approvals if such impacts cannot be avoided. Implementation of **Mitigation Measure BIO-6** would require either avoidance of native desert vegetation (including CDFW sensitive natural communities) or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of these measures, impacts would be less than significant.

Wells (Long-Term). Wells that are sited within undeveloped areas could impact jurisdictional waters and riparian habitats. Further, long-term wells have the potential to be located in one of the multiple sensitive natural communities present in the project area. Implementation of **Mitigation Measure BIO-5** would require siting of long-term wells to either avoid impacts to jurisdictional waters and associated riparian habitat or obtain the appropriate regulatory approvals if such impacts cannot be avoided. Implementation of **Mitigation Measure BIO-6** would require either avoidance of native desert vegetation (including CDFW sensitive natural communities) or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of these measures, impacts would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.4-2 to a less than significant level:

BIO-5: Jurisdictional Waters Delineation and State Permitting. Near-term pipelines (e.g., the pipeline along 47th Street East and Pipeline FF-01) cross waters that may be jurisdictional and could thus discharge into Waters of the State or alter of the bed and banks of streams regulated under Fish and Game Code. A jurisdictional delineation for these near term pipelines shall be conducted to determine the limits of potential jurisdictional waters. The results of the formal jurisdictional waters delineation will be used during project design to determine if jurisdictional waters can be avoided. If jurisdictional water can be avoided, then no further mitigation is necessary. If jurisdictional water features will be potentially impacted by the proposed project, then a Report of Water Discharge will be submitted to the Lahontan RWQCB and, if deemed necessary, Waste Discharge Requirements will be obtained from the agency. Concurrently, a Notification of Lake or Streambed Alteration will be submitted to the CDFW and, if deemed necessary, a Lake or Streambed Alteration Agreement will be obtained. Conditions for the certification and agreement may require additional surveys for plants and wildlife, as well as best management practices to minimize impacts.

For long-term storage tanks, pumps, pipelines, and wells, it is first recommended that project components be sited to avoid impacts to areas that appear to convey or pond water and any associated riparian habitat. If these areas cannot be avoided, a jurisdictional delineation for these facilities (as described above for near term pipelines) shall be conducted and associated permits obtained from RWQCB and CDFW.

BIO-6: Native Desert Vegetation Removal Survey and Permit. Prior to ground disturbance, a vegetation survey shall be conducted to characterize, map and quantify the amount of native desert vegetation, including sensitive natural communities, that would be disturbed by project components. This shall include all areas within a minimum of 100-feet from the project's impact limits.

If project components, near-term or long-term, within the boundaries of the City of Palmdale cannot be sited to avoid impacts to native desert vegetation species including sensitive natural communities as defined by CDFW, then a native desert vegetation removal permit will be necessary. This specifically applies to removal of Joshua trees and/or California junipers on project sites with a density equal to or greater than two individuals per acre (per the Joshua Tree and Native Desert Vegetation Preservation Ordinance. The PWD shall comply with all terms and conditions of the permit, including preparation and implementation of a desert vegetation preservation plan. Associated conditions and measures could include but are not limited to:

- A desert vegetation preservation plan prepared by a qualified biologist (i.e., desert native plant specialist) consisting of a written report and site plan depicting the location of each Joshua tree and/or California juniper and, if determined necessary by the City of Palmdale, a long-term maintenance program for any Joshua trees and/or California junipers left onsite.

- Joshua trees and/or California junipers to be left onsite shall be fenced-off and left undisturbed during any grading activities or removed to a holding area until grading activities are completed. If two Joshua trees and/or California junipers per acre cannot be preserved onsite (the minimum standard of preservation), the trees

shall be transplanted to an ecologically appropriate offsite location by the Palmdale Water District as approved by the City of Palmdale.

- In lieu of transplantation of Joshua trees and/or California junipers from areas to be developed by the project, the Palmdale Water District may satisfy the requirements of the City code through payment of a fee to the City. Joshua trees and/or California junipers preserved onsite, in landscape easements, or landscape assessment districts are to be maintained in a healthy condition for a minimum of two (2) growing seasons. The trees will be evaluated after one year by a qualified biologist. Trees determined to be failing or that have died will be replaced as determined by the City.

Local Policies or Ordinances Protecting Biological Resources

Impact 3.4-5: Joshua tree and California juniper, which are protected under the City of Palmdale's "Joshua Tree and Native Desert Vegetation Ordinance," occur throughout the project area and have the potential to be significantly impacted by implementation of WSMP facilities. Mitigation measure BIO-6 would be implemented to reduce potentially significant impacts associated with local policies and ordinances protecting biological resources to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Long-Term). Multiple storage tanks such as FS-06 and FS-08 would be located within undeveloped land; therefore, it is possible that the construction of the storage tanks could impact Joshua tree and California juniper. Implementation of **Mitigation Measure BIO-6** would require either avoidance of Joshua tree and California juniper or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of this measure, impacts would be less than significant.

Pumps (Long-Term). Although locations are preliminary in nature, the new pump stations may be located in undeveloped land; therefore, it is possible that the construction of the pump stations could impact Joshua tree and California juniper. Implementation of **Mitigation Measure BIO-6** would require either avoidance of Joshua tree and California juniper or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of this measure, impacts would be less than significant.

Pipelines (Near-Term). The Pipeline along 47th Street East is within the Palmdale city limits and it goes through habitat that supports Joshua tree and California juniper. Construction of the pipeline could impact the two species. Implementation of **Mitigation Measure BIO-6** would require either avoidance of Joshua tree and California juniper or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations.

Pipelines (Long-Term). Any pipelines that are sited within undeveloped areas, and within the Palmdale city limits, could impact Joshua tree and California juniper. Implementation of **Mitigation Measure BIO-6** would require either avoidance of Joshua tree and California juniper or obtainment of a native desert vegetation removal permit from the City, which involves

preservation and mitigation stipulations. With implementation of this measure, impacts would be less than significant.

Wells (Long-Term). As currently sited, the long-term wells are located within the Palmdale city limits and in an area that supports Joshua tree. Construction of the wells could impact the species. Implementation of **Mitigation Measure BIO-6** would require either avoidance of Joshua tree and California juniper or obtainment of a native desert vegetation removal permit from the City, which involves preservation and mitigation stipulations. With implementation of this measure, impacts would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.4-5 to a less than significant level:

Implement **Mitigation Measure BIO-6**

5.3.4 Cultural Resources

Historical Resources

Impact 3.5-1: Historical resources could be located in the WSMP project areas and have the potential to be significantly impacted by implementation of WSMP facilities. A mitigation measure requiring a historic resources assessment of WSMP project sites would be implemented to reduce potentially significant impacts associated with historical resources to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Long-Term). There could be as-yet-unidentified historic architectural resources that could qualify as historical resources under CEQA within or near long-term storage tank project areas. Implementation of **Mitigation Measure CUL-1** would require PWD to conduct a Historical Resources Assessment, as necessary, for future long-term components to be implemented as part of the WSMP. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Pumps (Long-Term). There could be as-yet-unidentified historic architectural resources that could qualify as historical resources under CEQA within or near long-term pump project areas. Implementation of **Mitigation Measure CUL-1** would require PWD to conduct a Historical Resources Assessment, as necessary, for future long-term components to be implemented as part of the WSMP. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Pipelines (Long-Term). The long-term pipelines would be installed primarily within existing roadway right-of-ways, and are not anticipated to impact historic architectural resources. However, the pipelines could cross linear features that could qualify as historical resources. Implementation of **Mitigation Measure CUL-1** would require PWD to conduct a Historical Resources Assessment, as necessary, for future long-term components to be implemented as part of the WSMP. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area, in undeveloped areas near industrial facilities and the Palmdale Regional Airport (north) and just east of developed land containing a high school and residential land uses (east). These areas are unlikely to contain historic architectural resources, and construction of the wells is not anticipated to impact historical resources. However, implementation of **Mitigation Measure CUL-1** would require PWD to consider whether historic resources would be affected by development of wells and if necessary conduct a Historical Resources Assessment. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.5-1 to a less than significant level:

CUL-1: Future Study – Historic Resources: Prior to development of long-term WSMP components that could potentially affect historic resources, PWD shall retain a Qualified Architectural Historian, defined as meeting the Secretary of the Interior's Professional Qualification Standards for architectural history (codified in 36 CFR Part 61; 48 FR 44738-44739), to conduct a historic resources assessment including: a records search at the South Central Coastal Information Center; a review of pertinent archives and sources; a pedestrian field survey; recordation of all identified historic resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the assessment. All identified historic resources shall be assessed for the project's potential to result in direct and/or indirect effects to those resources and any historic resource that may be affected shall be evaluated for its potential significance prior to PWD's approval of project plans and publication of subsequent CEQA documents. The Qualified Architectural Historian shall provide recommendations regarding additional work or treatment for significant resources that will be affected by the project prior to their demolition or alteration.

Archaeological Resources

Impact 3.5-2: Archaeological resources could be located in the WSMP project areas and have the potential to be significantly impacted by implementation of WSMP facilities. Mitigation measures requiring retention of a Qualified Archaeologist; cultural resource sensitivity training for construction workers; archaeological monitoring; adherence to mitigation policy in instances of inadvertent discovery of archaeological resources; and an archaeological resources future study would be implemented to reduce potentially significant impacts associated with archaeological resources to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). Given that construction of near-term storage tanks ES-01 and ES-03 includes ground-disturbing activities, there remains a potential, albeit low, to encounter archaeological resources. Implementation of **Mitigation Measures CUL-2, CUL-3, and CUL-5** would ensure that archaeological resources are identified and any discoveries are mitigated. With the implementation of these measures, impacts related to construction of storage tanks ES-01 and ES-03 would be reduced to a less than significant level.

Near-term storage tank FS-01 was assessed as having a moderate sensitivity for subsurface archaeological resources. It is possible that the construction of these two storage tanks could impact archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-5** would ensure that archaeological resources are identified and any discoveries are mitigated. With the implementation of these measures, impacts related to construction of storage tank FS-01 would be reduced to a less than significant level.

Storage Tanks (Long-Term). A total of 16 storage tanks could be constructed over the project's long-term planning period. It is possible that the construction of the storage tanks could impact archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-6** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pumps (Near-Term). Construction of the near-term pumps is not anticipated to impact archaeological resources. However, given that construction of the near-term pump stations includes ground-disturbing activities, there remains a potential, albeit low, to encounter archaeological resources. Implementation of **Mitigation Measures CUL-2**, **CUL-3**, and **CUL-5** would ensure that archaeological resources are identified and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pumps (Long-Term). The project includes four new pumps at five existing pump stations, as well as six new pump stations within the project area. Locations are preliminary in nature and it is possible that the construction of the pump stations could impact archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-6** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pipelines (Near-Term). Near-term pipeline locations were assessed as having a moderate sensitivity for subsurface archaeological resources and there is the potential to impact unknown buried archaeological resources during trenching the near-term pipelines. Trenching for pipeline installation would be 5 feet in depth, and has the potential to encounter intact subsurface archaeological resources that may have been capped and preserved under paved roadways, although archaeological sensitivity within Holocene alluvium (which underlies all near-term pipelines) decreases below 3 feet. Implementation of **Mitigation Measures CUL-2 through CUL-5** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With implementation of mitigation, impacts would be reduced to a less than significant level.

Pipelines (Long-Term). Construction of long-term pipelines has the potential to impact archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-6** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area, in undeveloped areas near industrial facilities and the Palmdale Regional Airport (north) and just east of developed land containing a high school and residential land uses (east). Construction of the wells could impact archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-6** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Headquarters Expansion (Long-Term). An archaeological resources survey was not conducted since the headquarters expansion is a long-term project. The depth of excavation for the headquarters expansion is currently unknown, but could impact buried archaeological resources. Implementation of **Mitigation Measures CUL-2 through CUL-6** would ensure that archaeological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.5-2 to a less than significant level:

CUL-2: Retention of a Qualified Archaeologist. Prior to start of any ground-disturbing activities for all near-term and long-term projects (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PWD shall retain a Qualified Archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739) to oversee and ensure that all mitigation measures related to archaeological resources are carried out.

CUL-3: Construction Worker Cultural Resource Sensitivity Training. Prior to the start of any ground-disturbing activity for all near-term and long-term projects, the Qualified Archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. PWD shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

CUL-4: Archaeological Monitoring. Archaeological resources monitoring shall be conducted as follows:

- During ground disturbance related to construction of near-term pipelines FF-01, FF-04, FF-05, FF-06, and FF-07 and the pipeline leading to pump station EB-01 to a depth of 3 feet (depth at which archaeological sensitivity decreases and paleontological sensitivity increases)

- During ground disturbance related to construction of near-term storage tank FS-01 to the terminal depth of excavation or until bedrock is reached

- During ground disturbance related to construction of any and all long-term project components that the Qualified Archaeologist determines to have a moderate-to-high archaeological sensitivity (to depths to be determined by the Qualified Archaeologist) (see Mitigation Measure CUL-6)

CUL-5: Inadvertent Discovery of Archaeological Resources. For all near-term and long-term projects, in the event of the unanticipated discovery of archaeological materials and/or Native American cultural resources, regardless of location, PWD shall immediately cease all work activities in the area (within approximately 100 feet) of the discovery until it can be evaluated by the Qualified Archaeologist. The San Manuel Band of Mission Indians shall be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the qualified archaeologist makes his/her assessment, so as to provide Tribal input. Construction shall not resume until the Qualified Archaeologist has conferred with PWD and the San Manuel Band of Mission Indians on the significance of the resource.

If it is determined that a discovered archaeological resource constitutes a historical resource or unique archaeological resource pursuant to CEQA, or a discovered Native American cultural resource constitutes a historical resource pursuant to CEQA, avoidance and preservation in place shall be the preferred manner of mitigation. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is determined to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Research Design and Treatment Plan shall be prepared and implemented by the Qualified Archaeologist in consultation with PWD and the San Manuel Band of Mission Indians. The Plan shall provide for the adequate recovery of the scientifically consequential information contained in the archaeological resource. PWD shall consult with the San Manuel Band of Mission Indians in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resource, beyond those that are scientifically important, are considered, and the draft Treatment Plan shall be provided to the San Manuel Band of Mission Indians for review and comment prior to implementation. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s).

The Qualified Archaeologist in consultation with the San Manuel Band of Mission Indians shall also determine the level of archaeological monitoring that is warranted during future ground disturbance in the area, and if work may proceed in other parts of the project area while treatment for cultural resources is being carried out.

The disposition and treatment of any artifacts or other cultural materials encountered during project implementation shall be determined by PWD in consultation with the San Manuel Band of Mission Indians.

CUL-6: Future Study – Archaeological Resources. Prior to development of all long-term WSMP components that involve ground disturbance, PWD shall retain a Qualified Archaeologist, defined as meeting the Secretary of the Interior's Professional

Qualification Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739), to conduct an archaeological resources assessment including: a records search update at the South Central Coastal Information Center; a Sacred Lands File search at the Native American Heritage Commission; a pedestrian field survey, where deemed appropriate by the Qualified Archaeologist; recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the study, and providing an assessment of the project area's archaeological sensitivity and the potential to encounter subsurface archaeological resources and human remains. All identified archaeological resources shall be assessed for the project's potential to result in direct and/or indirect effects to those resources and any archaeological resource that cannot be avoided shall be evaluated for its potential significance prior to PWD's approval of project plans and publication of subsequent CEQA documents. The Qualified Archaeologist shall provide recommendations regarding archaeological monitoring to be conducted in accordance with Mitigation Measure CUL-4, protection of avoided resources and/or recommendations for additional work or treatment of significant resources that will be affected by the project.

Paleontological Resources

Impact 3.5-3: Archaeological resources could be located in the WSMP project areas and have the potential to be significantly impacted by implementation of WSMP facilities. Mitigation measures requiring retention of a Qualified Archaeologist; cultural resource sensitivity training for construction workers; archaeological monitoring; appropriate treatment as determined by a Qualified Archaeologist in instances of inadvertent archaeological resources discovery; and an archaeological resources future study would be implemented to reduce potentially significant impacts associated with archaeological resources to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). Storage tank location ES-03 is underlain by the Punchbowl Formation (tps), which has a high paleontological sensitivity, and Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet, and construction of storage tank ES-03, which will extend up to 10 feet in depth, has the potential to impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Storage Tanks (Long-Term). A total of 16 storage tanks could be constructed over the project's long-term planning period. Multiple storage tanks would be located within areas of paleontological sensitivity; therefore, it is possible that the construction of the storage tanks could impact paleontological resources. **Implementation of Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pumps (Near-Term). Pump station location EB-01 is underlain by Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet, and pump station location FB-02 is underlain by Pleistocene alluvium (Qoa), which has high paleontological sensitivity. The pipeline leading to EB-01 is underlain by Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet, as well as Pleistocene alluvium, the Anaverde Formation, and the Punchbowl Formation, all of which have high paleontological sensitivity. Construction of these two pumps will extend up to 10 feet in depth and has the potential to impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts related to construction of EB-01 and FB-02 would be reduced to a less than significant level.

Pumps (Long-Term). The project includes four new pumps at five existing pump stations, as well as six new pump stations within the project area. Although locations are preliminary in nature, the new pump stations may be located in areas of paleontological sensitivity; therefore, it is possible that the construction of the pump stations could impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pipelines (Near-Term). The near-term pipelines are all underlain by Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet. Construction of the pipelines, which would extend up to 5 feet in depth, has the potential to impact paleontological resources. Implementation of Mitigation Measures CUL-7 through CUL-9 would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Pipelines (Long-Term). The long-term pipelines would be installed primarily within existing roadway right-of-ways, but may be located in areas of paleontological sensitivity. Construction of the pipelines, which would extend up to 5 feet in depth, has the potential to impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area, in undeveloped areas near industrial facilities and the Palmdale Regional Airport (north) and just east of developed land containing a high school and residential land uses (east). These areas are primarily underlain by Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet. Construction of the wells has the potential to impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction

activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Headquarters Expansion (Long-Term). The headquarter expansion location is underlain by Holocene alluvium (Qa), which has low-to-high paleontological sensitivity, increasing with depth below 3 feet. The depth of excavation for the headquarters expansion is currently unknown, but could extend below 3 feet in depth with the potential to impact paleontological resources. Implementation of **Mitigation Measures CUL-7 through CUL-9** would ensure that paleontological resources are identified, construction activities are appropriately monitored, and any discoveries are mitigated. With the implementation of these measures, impacts would be reduced to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.5-3 to a less than significant level:

CUL-7: Retention of a Qualified Paleontologist. Prior to start of any ground-disturbing activities for all near-term and long-term projects (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PWD shall retain a Qualified Paleontologist meeting the Society of Vertebrate Paleontology standards (SVP, 2010). The Qualified Paleontologist shall conduct construction worker paleontological resources sensitivity training for all construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project area and the procedures to be followed if they are found. PWD shall retain documentation demonstrating that construction personnel attended the training.

CUL-8: Paleontological Monitoring. Full-time paleontological resources monitoring for near-term and long-term projects shall be performed by a qualified paleontological monitor under the direction of the Qualified Paleontologist (SVP, 2010). Monitors shall have the authority to temporarily halt or divert work away from exposed fossils, in a radius of at least 50 feet, in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to be submitted to PWD. Paleontological resources monitoring shall be conducted as follows:

a. In sediments mapped as low-to-high paleontological sensitivity [i.e., Holocene alluvium (Qa)] all ground-disturbing activities that exceed 3 feet in depth (depth at which paleontological sensitivity increases) and occur in areas that have not been previously disturbed shall receive full-time paleontological monitoring. This depth is an estimate based on the recovery of fossils from the vicinity of the project area. The Qualified Paleontologist may reevaluate monitoring levels as construction progresses if the paleontological sensitivity of the area proves to be lower than anticipated.

b. In sediments mapped as high paleontological sensitivity [i.e., Pleistocene alluvium (Qoa, Qos), shale and sandstone of the Anaverde Formation (Tac, Tas), and the shale and sandstone of the Punchbowl Formation (Tpc, Tps)], all ground-disturbing activities that occur in areas that have not been previously disturbed shall be receive full-time paleontological monitoring, at all excavation depths. The Qualified Paleontologist may reevaluate monitoring levels as construction progresses if the paleontological sensitivity of the area proves to be lower than anticipated.

CUL-9: Inadvertent Discovery of Paleontological Resources. For all near-term and long-term projects, if construction or other project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the SVP (2010) and curated with a certified repository. Following a discovery, the Qualified Paleontologist shall also provide PWD with recommendations regarding future paleontological monitoring, if deemed warranted.

Human Remains

Impact 3.5-4: Human remains could be located in WSMP project areas and have the potential to be significantly impacted by implementation of WSMP facilities. Mitigation measures requiring appropriate treatment as determined by a Qualified Archaeologist in instances of inadvertent human remains discovery would be implemented to reduce potentially significant impacts associated with archaeological resources to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). There are no cemeteries or known human remains in the vicinity of the near-term storage tanks. Given the low to moderate archaeological sensitivity of the near-term storage tanks, construction of the storage tanks is not anticipated to impact human remains. However, given that construction of the near-term storage tanks includes ground-disturbing activities, there nonetheless remains a potential to encounter human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Storage Tanks (Long-Term). A total of 16 storage tanks could be constructed over the project's long-term planning period. It is possible that the construction of the storage tanks could impact human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Pumps (Near-Term). All three near-term pumps would be implemented within existing pump stations that are developed. No cemeteries or known human remains are in the vicinity of the near-term pump station locations. Given the low archaeological sensitivity of the near-term storage tanks, construction of the storage tanks is not anticipated to impact human remains. However, given that construction of the near-term pumps includes ground-disturbing activities,

there remains a potential, albeit low, to encounter human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Pumps (Long-Term). The project includes four new pumps at five existing pump stations, as well as six new pump stations within the project area. Locations are preliminary in nature and it is possible that the construction of the pump stations could impact human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Pipelines (Near-Term). The majority of the near-term pipelines are sited within or adjacent to existing roads, and no cemeteries or known human remains are within the near-term pipeline locations. However, the near-term pipeline locations were assessed as having a moderate sensitivity for subsurface archaeological resources, which could contain human remains. Trenching for pipeline installation would be 5 feet in depth, and has the potential to encounter intact subsurface archaeological resources with human remains that may have been capped and preserved under paved roadways. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Pipelines (Long-Term). Similar to near-term pipelines, construction of long-term pipelines has the potential to impact human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area, in undeveloped areas near industrial facilities and the Palmdale Regional Airport (north) and just east of developed land containing a high school and residential land uses (east). Construction of the wells could impact archaeological resources containing human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Headquarters Expansion (Long-Term). There are no cemeteries or known human remains in the vicinity of the headquarters expansion. The depth of excavation for the headquarters expansion is currently unknown, but has the potential to encounter intact subsurface archaeological resources with human remains. Implementation of **Mitigation Measure CUL-10**, which includes provisions for the unanticipated discovery of human remains, would reduce impacts to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.5-4 to a less than significant level.

CUL-10: Inadvertent Discovery of Human Remains. If human remains or funerary objects are encountered during activities associated with the project, then PWD shall halt work in the vicinity (within 100 feet) of the discovery and contact the County Coroner in accordance with Public Resources Code section 5097.98 and Health and Safety Code

section 7050.5. If the County Coroner determines the remains are Native American, then the Coroner shall notify the California Native American Heritage Commission in accordance with Health and Safety Code subdivision 7050.5(c), and Public Resources Code section 5097.98. The California Native American Heritage Commission shall designate a Most Likely Descendant for the remains per Public Resources Code section 5097.98. Until the landowner has conferred with the Most Likely Descendant, the contractor shall ensure the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities take into account the possibility of multiple burials.

5.3.5 Geology and Minerals

Soil Erosion or Topsoil Loss

Impact 3.6-2: Soil resources have the potential to be significantly impacted by implementation of WSMP facilities. A mitigation measure requiring best management practices for topsoil preservation would be implemented to reduce potentially significant impacts associated with soil erosion or topsoil loss to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term and Long-Term). The storage tanks to be constructed would all be located in undeveloped areas. Construction of near-term and long-term storage tanks would require site preparation and clearing, excavation, grading, tank erection and painting, and site restoration, which would disturb soils and potentially expose them to erosion or topsoil loss. **Mitigation Measure GEO-1** would ensure topsoil materials excavated during construction are reused and maintained onsite to the extent feasible, and that all topsoil stockpiles are wetted, thereby minimizing topsoil loss. The storage tanks would range in size from 3,421 to 18,627 square feet in size. One acre of disturbance is 43,560 square feet, and thus with ancillary construction space, construction could result in disturbance of one acre of ground surface. As described in Section 3.8, *Hydrology and Water Quality*, a Local Stormwater Pollution Prevention Plan (LSWPPP) that includes year-round erosion and sediment control Best Management Practices (BMPs) would be implemented for all construction activities disturbing more than one acre per County requirements. All construction activities regardless of disturbance size must implement a Wet Weather Erosion Control Plan (WWECP) that would include temporary erosion and sediment control BMPs for the rainy season when erosion and sediment loss potential tends to be highest. To further prevent erosion and topsoil loss, **Mitigation Measure HYD-1** requires preservation of existing vegetation to the maximum extent possible as well as compaction of any unvegetated areas post-construction (See Section 3.8, *Hydrology and Water Quality*). Operation of storage tanks would not result in any soil disturbance. Therefore, impacts related erosion and topsoil loss during storage tank construction and operation would be less than significant with implementation of mitigation.

Pumps at Existing Pump Stations (Near-Term and Long-Term). Construction of near-term and long-term pumps at existing pump stations would require minimal construction activities for pump and motor installation. Near-term and long-term pumps installed at existing pump stations would be installed within the existing pump station footprint and would not substantially disturb

topsoil. However, according to County requirements, any grading or earth disturbing construction activity must include a WWECP that provides temporary erosion and sediment control measures during the rainy season. Impacts during construction and operation would be less than significant.

New Pump Stations (Long-Term). Construction of six new long-term pump stations as part of the WSMP would involve installation of piping and electrical equipment, excavation and structural foundation installation, pump house construction, pump and motor installation, and final site restoration. These construction activities would expose soil and thus potentially result in erosion and/or topsoil loss. Including laydown areas, the construction of new pump stations could potentially result in one acre of ground disturbance. A LSWPPP that includes year-round erosion and sediment control BMPs would be implemented for all construction activities disturbing more than an acre per County requirements. Preparation of a WWECP detailing erosion and sediment control BMPs for the rainy season is required by the County regardless of the construction disturbance size. Further, **Mitigation Measure GEO-1** would ensure all excavated topsoil remains onsite and all stockpiled topsoil is wetted to avoid loss by wind erosion. **Mitigation Measure HYD-1** requires stabilization of soil prior to operation by the preservation of existing vegetation and/or compaction of unvegetated areas. Therefore, new pump stations would result in less than significant impacts related to erosion and topsoil loss during construction and operation with implementation of mitigation measures.

Pipelines (Near-Term and Long-Term). Construction of potable or recycled water pipelines would involve trenching using a conventional cut and cover technique, jack-and-bore or directional drilling techniques where necessary to avoid sensitive land features or roadway intersections. Dewatering may be required depending on the location. Over 700,000 feet of pipeline is as part of the project; various lengths of pipeline would be constructed at different time periods. In accordance with County requirements, pipeline construction activities that would disturb more than one acre require implementation of a LSWPPP that includes year-round erosion and sediment control BMPs. All construction activities regardless of disturbance size would implement a WWECP that includes temporary erosion and sediment control BMPs for the rainy season. **Mitigation Measure GEO-1** would ensure all excavated topsoil regardless of the construction footprint size is backfilled onsite to the maximum extent practicable, and all stockpiled topsoil is wetted to avoid loss by wind erosion. Mitigation Measure **HYD-1** requires compaction of unvegetated areas post-construction to stabilize soils prior to operation. Pipeline operation would not disturb any soils. Therefore, construction and operation of near-term and long-term pipelines would have less than significant impacts related to erosion and topsoil loss following implementation of mitigation.

Wells (Long-Term). Construction of wells would include site preparation, mobilization of equipment to the well site, well drilling, water quality testing, installation of the well casing, gravel packing and finishing with a cement seal. Although wells would be relatively small facilities, their construction disturbance footprint could amount to one acre or more. In accordance with County requirements, pipeline construction activities that would disturb more than one acre would require implementation of a LSWPPP that includes year-round erosion and sediment control BMPs. A WWECP including temporary erosion and sediment control BMPs for the rainy season is required for all construction activities. **Mitigation Measure GEO-1** would

ensure all excavated topsoil remains onsite and all stockpiled topsoil is wetted to avoid loss by wind erosion. **Mitigation Measure HYD-1** would ensure stabilization of well site soils by implementing post-construction BMPs prior to pipeline operation. Well operation would not disturb topsoil. Therefore, well construction and operation would have less than significant impacts related to erosion and topsoil loss following implementation of mitigation.

Headquarters Expansion (Long Term). Construction of the headquarters building expansion would involve excavation and structural foundation installation, building construction, installation of piping and electrical equipment, and final site restoration. These construction activities would expose soil and thus potentially result in erosion and/or topsoil loss. Construction of addition to the headquarters building would be 21,000 square feet, which would not trigger the one acre (43,560 square feet) threshold for a LSWPPP. However, preparation of a WWECP detailing erosion and sediment control BMPs for the rainy season is required by the County regardless of the construction disturbance size. Further, **Mitigation Measure GEO-1** would ensure all excavated topsoil remains onsite and all stockpiled topsoil is wetted to avoid loss by wind erosion. Therefore, the expanded headquarters building would result in less than significant impacts related to erosion and topsoil loss during construction and operation with implementation of mitigation measures.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.6-2 to a less than significant level:

GEO-1: Topsoil Preservation. All topsoil stripped from the ground surface during construction shall be used, to the extent feasible, for construction of other project elements and not hauled offsite. The upper six inches of topsoil shall be used as final cover to help re-establish vegetation post-construction as applicable. Any temporary stockpiles shall be managed through the use of best management practices, which shall include but not be limited to wetting and/or covering stockpiles to prevent wind erosion.

Implement **Mitigation Measure HYD-1**

Soil Erosion or Topsoil Loss

Impact 3.6-3: Unstable geologic units or soil have the potential to be significantly impacted by implementation of WSMP facilities, which could result in landslides, subsidence, liquefaction, or collapse. A mitigation measure requiring a geotechnical investigation for WSMP facility sites would be implemented to reduce potentially significant impacts to geologic units or soil to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term). None of the near-term storage tanks would be located within a landslide hazard zone; however, two of the near-term storage tanks (FS-01 and ES-03) would be located within a liquefaction hazard zone (see Figure 3.6-1). **Mitigation Measure GEO-2** requires preparation of a geotechnical report that addresses site-specific potential for liquefaction-associated settlement and lateral spreading in accordance with applicable County or City regulations. Structural mitigation and/or ground modification as recommended by the report would be implemented into storage tank design to avoid or lessen impacts related to liquefaction

and collapse. Although the near-term storage tank locations have not yet been mapped for subsidence risk by State or federal agencies, all desert soils have the potential to collapse. Therefore, the near-term storage tanks could experience subsidence. **Mitigation Measure GEO-2** also requires geotechnical reports for all facilities to analyze potential subsidence risk and recommend mitigation to avoid associated impacts to storage tanks. With implementation of mitigation measures, impacts associated with geologic instability would be less than significant for near-term storage tanks.

Storage Tanks (Long-Term). Four of the long-term storage tanks (FS-06, FS-07, FS-16 and FS-10) would be located in an area mapped as having potential landslide risk (see Figure 3.6-1). In accordance with **Mitigation Measure GEO-2**, a geotechnical analysis assessing slope stability and providing appropriate measures to mitigate landslide risk would be prepared for these storage tanks in accordance with applicable local regulations. One of the long-term storage tanks (ES-02) would be located in an area at risk for liquefaction. Per **Mitigation Measure GEO-2**, this storage tanks' geotechnical report would address the potential for liquefaction in accordance with applicable local regulations pertaining to geotechnical reports. Long-term storage tanks FS-04, FB-12, FS-13 and FS-15 are in an areas mapped as having low to moderate risk of subsidence. Although the locations of the remaining long-term storage tanks have not been mapped, all desert soils are capable of collapse. **Mitigation Measure GEO-2** also requires geotechnical reports to be prepared for all facilities that analyze potential subsidence and collapse risk on a site-specific basis and recommend appropriate mitigation to avoid associated impacts to storage tanks. With implementation of mitigation measures, impacts associated with geologic instability would be less than significant for long-term storage tanks.

Pumps (Long-Term). None of the long-term pumps to be installed at existing pump stations would be located in a landslide or liquefaction hazard area. One of the new long-term pump stations (FB-10) would be within a landslide hazard area, and one of the new long-term pump stations (FB-04) would be located within a liquefaction hazard area. However, **Mitigation Measure GEO-2** would require preparation of a geotechnical report that would assess and recommend mitigation for potential risks associated with landslide or liquefaction for these long-term pump stations (respectively) in accordance with applicable regulations; mitigation would be incorporated into long-term pump station design to avoid impacts associated with landslide or liquefaction. Also in accordance with Mitigation GEO-2, all new long-term pump stations would be analyzed for potential subsidence, recommended mitigation would be incorporated into long-term pump station design to increase structural resiliency in the event of a subsidence event. With implementation of mitigation, geologic instability impacts would be less than significant for long-term pump stations.

Pipelines (Near-Term and Long-Term). Sections of both near-term and long-term pipelines would be located within landslide and liquefaction hazard areas. However, pipelines would be designed in accordance with ALA Seismic Guidelines for Water Pipelines, which assess the potential for landslide and liquefaction and provide design recommendations for pipelines based on these risks, thereby increasing the pipelines' structural resiliency in the event of a seismic event including landslide and liquefaction. The pipelines also have the ability to be damaged by subsidence. However, in accordance with Mitigation **Measure GEO-2**, the geotechnical report

for all pipelines would also contain a subsidence and assessment and mitigation would be applied to pipeline design as recommended by the report to avoid or reduce associated impacts. With implementation of mitigation, geologic instability impacts would be less than significant for near-term and long-term pipelines.

Wells (Long-Term). The wells would not be located in a landslide or liquefaction hazard area, but could have the ability to be damaged by subsidence. However, in accordance with **Mitigation Measure GEO-2**, the geotechnical report for all wells would include a subsidence risk assessment that would recommend appropriate mitigation to avoid or reduce potential impacts associated with subsidence, which would be implemented into well design prior to construction. With implementation of mitigation, geologic instability impacts would be less than significant for long-term wells.

Headquarters Expansion (Long-Term). The headquarters building expansion would not be located in a landslide or liquefaction hazard area as shown on Figure 3.6-1. However, the 21,000 square foot building expansion could have the ability to be damaged by subsidence. In accordance with **Mitigation Measure GEO-2**, the geotechnical report for the headquarters expansion would include a subsidence risk assessment that would recommend appropriate mitigation to avoid or reduce potential impacts associated with subsidence, which would be implemented into well design prior to construction. With implementation of mitigation, geologic instability impacts would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.6-3 to a less than significant level:

GEO-2: A geotechnical report shall be prepared by a certified engineer for all facilities involving substantial ground disturbance or excavation. The report shall assess subsidence, liquefaction, landslide, expansive soil potential and collapsible soil potential of each facility site. Structural mitigation recommendations provided in the geotechnical report shall be incorporated into the design of the facility prior to construction. The contents of the geotechnical report shall vary depending on the jurisdiction and risks associated with each facility's location.

Expansive Soil

Impact 3.6-4: Expansive soils could be located in WSMP project areas and have the potential to be significantly impacted by implementation of WSMP facilities, which could create substantial risks to life or property. A mitigation measure that requires a geotechnical investigation for WSMP facility sites would be implemented to reduce potentially significant impacts to expansive soils to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). The facilities have the ability to be located on expansive soils; expansion of soils beneath the storage tank structures, wells and pump stations, headquarters building expansion, as well as around pipelines, could damage these structures. Although the City of Palmdale 1993 General Plan generally outlined areas of low, medium and

high soil expansion potential within the project area, soil expansiveness could vary on a site-specific basis. Per **Mitigation Measure GEO-2**, the geotechnical report prepared for near-term and long-term storage facilities would include an analysis of soil type and expansion potential, and recommendations from the report would be incorporated into facility design. Impacts related to expansive soil would be less than significant.

Finding: PWD has adopted and will implement the following measure that will reduce potentially significant Impact 3.6-4 to a less than significant level:

Implement **Mitigation Measure GEO-2**

5.3.6 Hazards

Airports

Impact 3.7-5: The proposed project could be located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip, which could result in significant safety hazards for people residing or working in the project area. Mitigation measures that require PWD to coordinate directly with the County of Los Angeles Airport Land Use Commission; prepare an airport construction safety plan before construction; and participate in the FAA's 7460 process would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). The Palmdale Regional Airport is located 1.5 miles north of the project area. Construction and operation of several long-term pipelines, short-term pipeline FF-01, and the two northern groundwater production wells FW-04 and FW-05 would occur within the AIA for the Palmdale Regional Airport. Construction of these pipelines and wells could be in close proximity to the Palmdale Regional Airport and have the potential to disrupt airport operations. All other facilities would be located outside of the AIA. The presence of construction equipment, particularly cranes, could pose temporary safety hazards to aviation within the AIA. To prevent potential intrusions to navigable airspaces, **Mitigation Measure LU-1** and **Mitigation Measure LU-2** would require that PWD coordinate directly with the County of Los Angeles Airport Land Use Commission (ALUC) and prepare an airport construction safety plan that would identify best management practices to be used before project construction.

Further, **Mitigation Measure LU-3** would require PWD to notify the airport of construction activities in advance and participate in the FAA's 7460 process to ensure that the construction equipment does not pose hazards to aviation. In addition to FAA airspace review, throughout the long-term construction of pipelines and wells, ongoing coordination with the airport would be required to ensure that construction activities do not disrupt airport operations and that appropriate notice is provided to aviators using the airport. Implementation of **Mitigation Measure LU-1 through Mitigation Measure LU-3** would reduce potential impacts associated with airport operations in terms of flight patterns, safety, light, navigation, or communications between aircraft and the control tower. As a result, impacts associated with safety hazards for people working or residing in the project area would be reduced to less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.7-5 to a less than significant level.

LU-1: For project facilities occurring within the AIA, PWD shall submit their proposed project plans to the Los Angeles County ALUC for review and comment prior to final design.

LU-2: Prior to conducting construction activities within an AIA, PWD shall prepare an airport construction safety plan that would identify best management practices. The plan may include construction timeframes and hours, lighting and flagging requirements, air traffic control communication requirements, access and egress restrictions, equipment staging area requirements, personal safety equipment requirements for construction workers, and appropriate notification to aviators. The plan would be reviewed and approved by airport staff.

LU-3: Prior to final design of the project components within an AIA, PWD shall identify the ground elevation associated with construction equipment associated with each project component constructed within the AIA and submit their project plans to airport staff for review and comment. Working with airport staff, PWD shall submit their design plans for airspace analysis (FAA Part 7460 review) to determine whether any of the construction equipment would protrude into protected airspace. If such objects are identified, the implementing agencies, airport staff, and FAA will identify appropriate steps to adjust project plans or include appropriate markings to identify hazards to aviators pursuant to FAA Part 7460.

Emergency Plans

Impact 3.7-6: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. A mitigation measure that requires PWD to prepare and implement a Traffic Control Plan would be implemented to reduce potentially significant impacts to emergency response/evacuation plans to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Pipelines (Near-Term and Long-Term). The majority of pipelines would be constructed within public ROWs. This construction activity, and other anticipated construction activity associated with conveyance systems, could potentially block access to roadways and driveways for emergency vehicles. The construction-related impacts, although temporary, could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, the implementation of **Mitigation Measure HAZ-1** would require the preparation of a Traffic Control Plan with comprehensive strategies to reduce disruption to emergency access. Therefore, with implementation of mitigation measures, potential significant impacts to emergency access would be reduced to less than significant levels.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.7-6 to a less than significant level:

HAZ-1: In conjunction with Mitigation Measure TR-1, prior to initiating construction of pipelines within roadway rights-of-way, PWD shall prepare and implement a Traffic

Control Plan that contains comprehensive strategies for maintaining emergency access. Strategies shall include, but are not limited to, maintaining steel trench plates at the construction sites to restore access across open trenches and identification of alternate routing around construction zones. In addition, police, fire, and other emergency service providers shall be notified of the timing, location, and duration of the construction activities and the location of detours and lane closures. The PWD shall ensure that the Traffic Control Plan and other construction activities are consistent with the Los Angeles County Operational Area Emergency Response Plan.

Wildland Fires

Impact 3.7-7: The proposed project could expose people or structures to significant risk of loss, injury, or death involving wildland fire. A mitigation measure that requires PWD to implement fire hazard reduction measures would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Lands adjacent to all facilities are both urbanized and undeveloped desert lands. CAL FIRE designates the project area as a non-very high fire hazard severity zone; however, there are moderate, high, and very high fire hazards severity zones within the southern portion of the project area. As indicated by Figure 3.6-1, various short-term facilities such as storage tank FS-01 and long-term facilities such as pump station FB-11 would be located in such areas with high risks of wildland fires. The use of spark-producing construction machinery within these fire risk areas could create hazardous fire conditions and expose construction workers to wildfire risks. The implementation of **Mitigation Measure HAZ-2** would ensure fire hazard reduction measures are conducted during construction in areas designated as very high fire hazard severity zones to reduce the potential for wildfire impacts on people or structures to less than significant levels.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.7-7 to a less than significant level.

HAZ-2: Implement Fire Hazard Reduction Measures. During construction of facilities located in areas designated as moderate, high, or very high fire hazard severity zone by CAL FIRE, PWD shall require that all staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the WSMP facilities, contractors shall require all vehicles and crews to have access to functional fire extinguishers at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.

5.3.7 Hydrology

Water Quality Standards and Waste Discharge Requirements

Impact 3.8-1: The proposed project could violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality (including groundwater quality). Mitigation measures that require post-construction stabilization and implementation of source control BMPs would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term and Long-Term). Construction of storage tanks would require site preparation and clearing, excavation, grading, tank erection and painting, and site restoration; these construction activities would expose and disturb soils and require the use of fuels, lubricants and other chemicals onsite. Although temporary, introduction of sediment and chemicals to stormwater and site runoff could potentially violate water quality standards within or downstream of the project area, consequentially degrading water quality. Because the project would involve construction on more than one acre, PWD is required to implement a LSWPPP that would include year-round BMPs designed to prevent mixing of stormwater with sediment and chemicals during storage tank construction. With implementation of erosion control measures, impacts to water quality during storage tank construction would be less than significant. Once operational, the storage tanks would hold millions of gallons of water to serve various pressure zones throughout the project area. Although regular operation of the storage tanks would not pose a threat to water quality, the tanks would require periodic maintenance including inspection of storage tank structures and potential replacement of non-operational machinery; these activities could impact the quality of stormwater runoff on storage tank sites by introducing sediment or chemicals to runoff. **Mitigation Measure HYD-1** would ensure vegetation is preserved to the maximum extent possible, and unvegetated sites would be compacted to stabilize soil following construction. **Mitigation Measure HYD-2** would require implementation of source control BMPs on tank sites during maintenance activities to prevent mixing of stormwater with maintenance-related chemicals. With implementation of mitigation, impacts to water quality during storage tank operation would be less than significant.

New Pump Stations (Long-Term). Construction of new long-term pump stations would involve installation of piping and electrical equipment, excavation and structural foundation installation, pump house construction, pump and motor installation, and final site restoration. These construction activities have the potential to degrade water quality by introducing sediment and pollutants to receiving waters. Because the project would involve construction on more than one acre, a WWECP would be implemented for all construction sites that would include temporary erosion and sediment control BMPs for the rainy season. Therefore, County requirements would help reduce potential impacts to water quality during pump station construction. Following construction, **Mitigation Measure HYD-1** would ensure any onsite vegetation is preserved to the maximum extent practicable, and unvegetated sites would be compacted to achieve stabilization. Vegetation would help stabilize soil, thereby preventing the introduction of sediment into stormwater and trapping sediment and pollutants potentially introduced onsite by maintenance

activities. With implementation of mitigation, water quality impacts from construction and operation of new long-term pump stations would be less than significant.

Pipelines (Near-Term and Long-Term). Construction of pipelines could introduce sediment and chemicals to runoff. Because the project would involve construction on more than one acre, a WWECP is required for all construction activities. Although discharging dewatered groundwater elsewhere could impact the discharge site's water quality, all dewatering activities would require compliance with the Lahontan Region Water Quality Control Board (LRWQCB) Limited Threat Discharges Permit. Compliance includes designation of a discharge disposal site, implementation of BMPs to control discharges, and monitoring and reporting to ensure discharges do not contribute to an exceedance in water quality objectives in receiving waters. With implementation of these measures, water quality impacts from construction of pipelines would be less than significant. Following construction, **Mitigation Measure HYD-1** would require that disturbed area is restored to pre-construction conditions. During operation, pipelines would be belowground and are not anticipated to require routine maintenance activities Therefore, pipelines are not expected to impact water quality on a regular or periodic basis.

Wells (Long-Term). Construction of production wells could introduce sediment and chemicals to runoff and consequently degrade water quality. Because the project would involve construction on more than one acre, a LSWPPP is required by the County that would include year-round BMPs to prevent impacts to water quality. Additionally, a WWECP is required for all construction activities to implement temporary erosion and sediment control BMPs for the rainy season. Although discharging dewatered groundwater during well construction could impact the discharge site's water quality, well construction activities require compliance with the LRWQCB Limited Threat Discharges Permit. Compliance includes designation of a discharge disposal site, implementation of BMPs to control discharges, and monitoring and reporting to ensure discharges do not contribute to an exceedance in water quality objectives in receiving waters. With implementation of mitigation, water quality impacts from construction of pipelines would be less than significant. During operation, two of the groundwater production wells to be implemented as part of the long-term project components could interact with contamination at AFP 42. PWD would be required to coordinate with the U.S. Air Force, SWRCB, and DTSC prior to construction of the extraction wells to ensure no contamination interference would occur. Based on water quality, extracted groundwater may require blending or treatment to meet drinking water standards. In addition, maintenance activities associated with wells could require the use of substances that would degrade surface water quality if found in stormwater runoff. **Mitigation Measure HYD-2** would ensure source control BMPs are implemented during well maintenance to prevent introduction of sediment and chemicals to runoff during well operation. With implementation of mitigation, water quality impacts from construction of wells would be less than significant.

Headquarters Expansion (Long-Term). Construction of the headquarters building expansion could have the potential to degrade water quality by introducing sediment and pollutants to receiving waters. Because the project would involve construction on more than one acre, a LSWPPP would be prepared that would implement year-round BMPs for construction activities. Additionally, a WWECP would be implemented for all construction sites that would include

temporary erosion and sediment control BMPs for the rainy season. Therefore, County requirements would help reduce potential impacts to water quality during headquarters construction. Following construction, **Mitigation Measure HYD-2** would require implementation of source control BMPs s during maintenance activities to prevent mixing of stormwater with maintenance-related chemicals. With implementation of mitigation, water quality impacts from construction and operation of the headquarters building expansion would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.8-1 to a less than significant level:

HYD-1: Post-Construction Stabilization. The project shall be designed to maintain natural drainage paths and landscape features to the maximum extent possible to slow and filter runoff and maximize groundwater recharge. Following implementation of project facilities, areas of disturbance that do not contain aboveground structures shall be restored to pre-construction conditions with regard to vegetation cover. Existing vegetation shall be preserved to the maximum extent practicable during construction activities. If no vegetation was present prior to construction, the site shall be compacted to achieve soil stabilization. To ensure immediate soil stabilization of revegetated areas, a soil binder shall be applied following planting of vegetation.

HYD-2: Source Control BMPs. PWD shall implement source control BMPs for all activities at project sites, including but not limited to accidental spills and leaks, outdoor equipment operations, and building and grounds maintenance. Source control BMPs shall be designed to prevent chemicals associated with these activities from coming into contact with stormwater. PWD shall refer to the latest version of the California Stormwater Quality Association's Construction BMP Online Handbook during project operation to avoid impacts from spills or leaks of fuel or hazardous materials. Pertinent BMPs include but are not limited to WM-4: Spill Prevention and Control and WM-6: Hazardous Waste Management. If backup generators with onsite fuel storage will be included on pump station sites, PWD shall design a spill prevention and emergency response plan to implement in the event of a fuel spill to mitigate potential impacts to soil and groundwater.

Groundwater Supplies and Recharge

Impact 3.8-2: The proposed project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Mitigation measures that require future coordination with the Antelope Valley Watermaster Engineer would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Groundwater Wells (Long-Term). Operation of the long-term groundwater production wells has the potential to affect the groundwater table level and groundwater supplies. The wells would directly extract groundwater from the Basin, and their operation could have a localized impact on groundwater levels due to temporary pumping depressions. Potential nearby existing wells that could be affected by pumping of the wells include EAFB/ Plant 42 near the northern production

wells and wells at the Rock Quarry near the eastern production wells. The location and number of other nearby production wells could change over the long-term nature of project implementation because PWD would implement the five production wells as a long-term project component. Prior to developing the production wells, PWD would be required to obtain a Los Angeles County Health permit and submit a well application to the Antelope Valley Watermaster Engineer. When PWD chooses to implement the groundwater wells over the long-term portion of the project, **Mitigation Measure HYD-3** would require coordination with the Antelope Valley Watermaster Engineer. Coordination would involve conducting a material harm review of the groundwater wells as well as the available groundwater rights. The Antelope Valley Watermaster Engineer would ensure operational criteria for the wells do not result in a net deficit in aquifer volume or a lowering of the local groundwater table such that the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted. Impacts would be less than significant with mitigation.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.8-2 to a less than significant level.

HYD-3: Future Coordination with Antelope Valley Watermaster Engineer. For all future long-term wells to be implemented under the WSMP, PWD shall coordinate with the Watermaster to conduct a material harm review of the proposed groundwater wells as well as the available groundwater rights. PWD shall work with the Watermaster to ensure that well operation would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level such that the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.

Drainage Patterns

Impact 3.8-3: The proposed project could alter the existing drainage pattern of a site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or flooding on-or off-site. Mitigation measures that require post-construction vegetation stabilization would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Near-Term and Long-Term). Construction of storage tanks would require grading, which would alter the topography and drainage patterns of the storage tank locations. **Mitigation Measure HYD-1** would ensure implementation of erosion and sediment control BMPs are implemented during construction, thereby preventing erosion and siltation from occurring. With implementation of mitigation, erosion, sedimentation and flooding impacts related to construction of storage tanks would be less than significant. Once operational, the tanks would reduce the impervious surfaces, thereby decreasing infiltration and potentially increasing runoff that could result in erosion, siltation and/or flooding. **Mitigation Measure HYD-1** would require preservation of existing vegetation to the maximum extent practicable, and post-construction stabilization either by replanting any lost vegetation or compacting the soil, thereby reducing the

potential for erosion and siltation during storage tank operation. Therefore, storage tank construction and operation would not result in significant impacts related to erosion, siltation or flooding caused by drainage pattern alteration.

New Pump Stations (Long-Term). Although pump station construction would not require grading, other construction activities that would alter the ground surface, such as foundation installation, would alter the drainage pattern of the pump sites. Because the project would involve construction on more than one acre, a LSWPPP is required by the County that would include year-round BMPs to prevent erosion and sedimentation from occurring. A WWECP is also required for all construction activities regardless of their disturbance footprint size to implement temporary erosion and sediment control BMPs for the rainy season. Although impervious, the pump station area is not large enough to dramatically reduce area's pervious surfaces and its overall ability to absorb surface flows, and would not contribute to flooding. With implementation of mitigation, erosion, sedimentation and flooding impacts related to construction of long-term pump stations would be less than significant. Following construction, vegetation preserved during construction and/or soil compaction required per **Mitigation Measure HYD-1** would stabilize soil. Although long-term pump station FB-04 would be located within the Lake Palmdale Dam inundation area and could thus be subject to flooding, drainage pattern alteration resulting from pump station construction and operation is expected to be minor and would not worsen the site's existing flood risk. Therefore, neither pump station construction nor operation would result in significant impacts related to erosion, siltation or flooding caused by drainage pattern alteration. With implementation of mitigation, erosion, sedimentation and flooding impacts related to operation of long-term pump stations would be less than significant.

Pipelines (Near-Term and Long-Term). Construction activities associated with pipelines such as trenching would disturb the ground surface and alter its drainage pattern. Because the project would involve construction on more than one acre, a LSWPPP is required by the County that would include year-round BMPs to prevent erosion and sedimentation from occurring. A WWECP is also required for all construction activities regardless of their disturbance footprint size to implement temporary erosion and sediment control BMPs for the rainy season. Dewatering for pipeline construction could also result in erosion, siltation or flooding if dewatered flows are not properly controlled; however, the Limited Threat Discharges Permit requires prior designation of a discharge site, along with BMPs to control discharge flows. With implementation of mitigation, erosion, sedimentation and flooding impacts related to construction of near-term and long-term pipelines would be less than significant. Following construction, **Mitigation Measure HYD-1** would ensure preservation of existing vegetation to the maximum extent practicable and compacting of unvegetated areas to stabilize soil. Once operational, the pipelines would operate belowground and disturbed surface areas would be restored to pre-construction conditions. There would be no decrease in pervious surfaces that could generate excessive flood flows. Some long-term pipelines would be located within the Lake Palmdale Dam inundation area or a 100-year flood zone; however, pipelines would be located belowground and would thus not worsen existing flood risks. Erosion, sedimentation and flooding impacts related to operation of near-term and long-term pipelines would be less than significant.

Wells (Long-Term). Well construction activities such as well drilling and finishing would disturb the ground surface and alter its drainage pattern. Because the project would involve construction on more than one acre, a LSWPPP is required by the County that would include year-round BMPs to prevent erosion and sedimentation from occurring. A WWECP would also be required for all construction activities regardless of their disturbance footprint size to implement temporary erosion and sediment control BMPs for the rainy season. **Mitigation Measure HYD-1** would ensure preservation of existing vegetation to the maximum extent practicable and compacting of unvegetated areas to stabilize soil. Well construction could also result in erosion, siltation or flooding if dewatered flows are not properly controlled; however, compliance with the Limited Threat Discharges Permit requires prior designation of a discharge site and implementation of BMPs to control discharge flows. Although impervious, the aboveground well structures would not be of a substantial size to decrease pervious surfaces such that excessive flood flows are generated. With implementation of mitigation, erosion, sedimentation and flooding impacts related to construction and operation of long-term wells would be less than significant.

Headquarters Expansion (Long-Term). Construction of the PWD headquarters expansion would require grading, which would alter the topography and drainage patterns of the existing PWD headquarters site. **Mitigation Measure HYD-1** would ensure implementation of erosion and sediment control BMPs are implemented during construction, thereby preventing erosion and siltation from occurring. With implementation of mitigation, erosion, sedimentation and flooding impacts related to construction of the headquarters building would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.8-3 to a less than significant level:

Implement **Mitigation Measure HYD-1**

Drainage Patterns

Impact 3.8-7: The proposed project could expose people or structures to a significant risk of loss, injury or death involving inundation by tsunami, seiche, or mudflow. Mitigation measures that require post-construction vegetation stabilization would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near Term and Long Term). The project area is not located within the vicinity of an ocean and is thus not at risk for experiencing tsunamis. The chance of nearby Lake Palmdale generating a seiche is unlikely according to design reports, and the wave volume above the dam would not be substantial as to cause damaging floods. The California Aqueduct is located within the project area, and could be subject to a seiche; however, relatively few seiches have occurred in aqueduct channels. The project area has the potential to experience mudflow. Therefore, all project structures except pipelines (storage tanks, pumps, pump stations, wells, and the headquarters expansion) could be damaged by mudflows since they would be located aboveground. However, in accordance with **Mitigation Measure HYD-1**, impacts to existing vegetation would be minimized and the majority of lost vegetation would be replanted. Therefore,

the project would not alter the project sites' existing topography based on pre-construction conditions that would increase the area's potential to experience mudflow. Further, the project sites would only be periodically occupied (either temporarily for construction or periodically for maintenance) and would thus not introduce persons to a permanent risk of safety threats from mudflow. Therefore, impacts related to tsunami, seiche and mudflow would be less than significant.

Finding: PWD has adopted and will implement **Mitigation Measure HYD-1** that will reduce potentially significant Impact 3.8-7 to a less than significant level.

5.3.8 Land Use and Recreation

Conflict with Applicable Plans, Policies, or Regulations

Impact 3.9-2: The project could conflict with an applicable land use plan, policy, or regulation adopted for the purposed of avoiding or mitigating an environmental effect. Mitigation measures that require PWD to coordinate directly with the County of Los Angeles Airport Land Use Commission; prepare an airport construction safety plan before construction; and participate in the FAA's 7460 process would be implemented to reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Construction and operation of several long-term pipelines, one short-term pipeline FF-01 and the two northern groundwater production wells would occur within the AIA for the Palmdale Regional Airport. All other facilities would be located outside of the AIA. Construction of the pipelines within the AIA have the potential to disrupt airport operations. The presence of construction equipment, particularly cranes, could pose temporary hazards to aviation within the AIA. To prevent potential intrusions to navigable airspaces, **Mitigation Measure LU-1** and **Mitigation Measure LU-2** would require that PWD coordinate directly with the County of Los Angeles ALUC and prepare an airport construction safety plan that would identify best management practices to be used before project construction.

Further, **Mitigation Measure LU-3** would require PWD to notify the airport of construction activities in advance and participate in the FAA's 7460 process to ensure that the construction equipment does not pose hazards to aviation. In addition to FAA airspace review, throughout the long-term construction of pipelines, ongoing coordination with the airport would be required to ensure that construction activities do not disrupt airport operations and that appropriate notice is provided to aviators using the airport. Implementation of **Mitigation Measure LU-1** through **Mitigation Measure LU-3** would reduce potential conflicts with the Palmdale Regional Airport Land Use Plan; impacts would be considered less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.9-2 to a less than significant level:

Implement **Mitigation Measure LU-1**

Implement **Mitigation Measure LU-2**

Implement **Mitigation Measure LU-3**

Recreational Facilities Physical Effect on Environment

Impact 3.9-5: The proposed project could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical impact on the environment. Mitigation measures that require PWD to coordinate with the City of Palmdale, Recreation and Culture Department would be implemented to reduce potentially significant impacts to recreational activities and bikeways to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Various long-term pipelines would be implemented within the Barrel Springs Trail and Equestrian Arena area. Additionally, some facilities such as storage tank ES-03 and the short term pipeline along Sierra Highway, would be implemented within areas designated as open space. According to the City of Palmdale General Plan, land designated as open space is considered to be a recreational land use. Depending on the area required for the facility, an individual project could result in the removal of a portion of open space that could be used for recreational activities. **Mitigation Measure REC-1** would require PWD to coordinate with the appropriate jurisdiction to identify ways to minimize impacts of the project on open space, which would reduce impacts to open space land uses to a less than significant level. Further, multiple long term pipelines would be constructed within roadway ROW that contain or are located near designated Class I, II, and III bike paths. The placement of these pipelines in the roadways would temporarily disrupt cyclists utilizing these paths. However, implementation of **Mitigation Measure REC-2** would ensure that potential impacts associated with temporary disruptions to bikeways would be mitigated to less than significant levels.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.9-5 to a less than significant level:

REC-1: For projects that would construct new facilities on public lands designated as open spaces, PWD shall coordinate with the City of Palmdale, Recreation and Culture Department identify ways to minimize impacts of project construction and operation on recreational activities. Measures may include but are not limited to:

Project Construction

- Posting of signage indicating dates during which use of recreational areas would be restricted due to construction
- Placement of fencing to isolate construction areas and allow continued use of other areas of recreational parks and facilities
- Timing of construction activities to avoid peak recreational seasons

Project Operation

- Use of vegetation to screen proposed facilities from view of adjacent recreational land uses
- Security fencing to enclose new PWD facilities, as necessary

REC-2: For projects that would construct pipelines or other new facilities within designated bikeways, PWD shall coordinate with the applicable jurisdiction to determine whether circulation and detour plans are required to minimize impacts to access to local bikeways. Circulation and detour plans may include the use of signage and flagging of cyclists through and/or around the construction zone.

5.3.9 Noise

Exceedance of Established Noise Standards

Impact 3.10-1: The project could expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. PWD would require construction contractors to implement noise measures that would reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks, Pump Stations, and Pipelines (Near-Term). Noise during construction of the storage tanks, pump stations, and pipeline facilities could exceed the County maximum permissible sound levels. Pipeline construction however would be short-term in duration and would expose sensitive receptors to temporary increases in noise levels because the construction activities would move along the pipeline route (i.e., roadways) as the pipeline is installed. Furthermore, construction activities that occur between 7:00 a.m. to 7:00 p.m., Monday through Saturday, would be exempt from the Los Angeles County Code noise thresholds. However, if construction activities within 4,500 feet of a sensitive receptor were to occur outside of these times and days, sensitive receptors could be exposed to increased noise levels in excess of the Municipal Code, which could result in a significant impact. However, implementation of **Mitigation Measure NOISE-1** and **NOISE-2** would impose measures to reduce construction noise activities adjacent to sensitive receptors, and excessive noise impacts to sensitive receptors would be reduced to less than significant.

Storage Tanks, Pump Stations, Pipelines, Wells, and Headquarters Expansion (Long-Term). Noise during construction of the all long-term facilities could exceed the City or County maximum permissible sound levels. Pipeline construction however would be short-term in duration and would expose sensitive receptors to temporary increases in noise levels because the construction activities would move as the pipeline is installed. Furthermore, construction activities that occur between 7:00 a.m. to 7:00 p.m., Monday through Saturday, would be exempt from the Los Angeles County Code and City of Palmdale Municipal Code noise thresholds. However, if construction activities within 4,500 feet of a sensitive receptor in the County or 800 feet of a sensitive receptor in the City were to occur outside of these times and days, sensitive receptors could be exposed to increased noise levels in excess of the County or Municipal Code,

which could result in a significant impact. However, implementation of **Mitigation Measure NOISE-1 and NOISE-2** would impose measures to reduce construction noise activities adjacent to sensitive receptors, and excessive noise impacts to sensitive receptors would be reduced to less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.10-1 to a less than significant level:

NOISE-1*:* PWD shall require the construction contractors to implement the following measures, as applicable, during construction of the proposed facilities:

- Construction activities shall meet municipal or County code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays.
- Prior to nighttime construction activities that would generate noise in excess of noise standards, the construction contractor shall secure a noise waiver from the relevant jurisdiction (City or County) and comply with any terms and conditions of the waiver.
- Sensitive receptors (residences, residential areas, schools, and hospitals) within 800 feet (in the City) and 4,500 feet (in the County) of project construction activities shall be identified and mapped.
- Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools.
- Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive receptors including residences, schools, and hospitals.
- Where feasible, construct barriers between noise sources and noise-sensitive land uses to block sound transmission. Enclose construction equipment where practicable.
- If construction were to occur near a school, the construction contractor shall coordinate the most noise producing construction activities with school administration in order to limit disturbance to the campus.

NOISE-2: PWD shall require the construction contractor to notify in writing all landowners and occupants of properties within 500 feet of the construction area of the construction schedule at least two weeks prior to groundbreaking. The construction contractor shall designate a Noise Complaint Coordinator who will be responsible for responding to complaints regarding construction noise. The Coordinator shall ensure that reasonable measures are implemented to correct any problems. A contact telephone number for the Coordinator shall be conspicuously posted at the construction site and included in the written notification of the construction schedule sent to surrounding properties.

Exposure to Vibration Levels

Impact 3.10-2: The proposed project could expose people and structures to ground-borne vibration or ground-borne noise levels. PWD would require construction contractors to implement noise measures that would reduce potentially significant impacts associated with vibration levels to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Construction of the project would employ conventional activities and the equipment/techniques to be used would not cause excessive ground-borne vibration; however, drilling could be required during pipeline installation. The facilities could get as close as 43 feet from sensitive receptors before exceeding the annoyance threshold of 80 RMS and 15 feet from a structure to be below the potential structural damage threshold of 0.2 in/sec PPV. However, if construction activities within 43 feet of a sensitive receptor were to occur, sensitive receptors could be exposed to ground-borne vibration or ground-borne noise in excess of FTA standards. This would be a significant impact. However, implementation of **Mitigation Measure NOISE-3** would reduce ground-borne vibration and noise levels when construction activities occur adjacent to sensitive receptors and would result in less than significant impacts to sensitive receptors.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.10-2 to a less than significant level:

NOISE-3: PWD shall require the construction contractor to implement the following measures, as applicable, during construction of proposed facilities:

- Sensitive receptors (residences, residential areas, schools, and hospitals) within 50 feet of project construction activities shall be identified and mapped.

- Limit jack and bore drilling to at least 43 feet from sensitive receptors and 15 feet from any structures.

- If jack and bore drilling must occur within 15 feet of any structure, the construction contractor shall conduct crack surveys before drilling to prevent potential architectural damage to nearby structures. The surveys shall be done by photographs, video tape, or visual inventory, and shall include inside as well as outside locations. All existing cracks in walls, floors, and driveways shall be documented with sufficient detail for comparison after construction to determine whether actual vibration damage occurred. A post-construction survey shall be conducted to document the condition of the surrounding buildings after the construction is complete.

Permanent Increase in Ambient Noise Levels

Impact 3.10-3: The proposed project could result in a permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Mitigation that requires PWD to conduct post-construction noise measurements would reduce potentially significant impacts

associated with vibration levels to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Project operations that would generate noise include maintenance vehicle trips and the operation of certain mechanical equipment such as stationary pumps, wells, and generators. Pump stations and groundwater wells would include hydraulic pumps that would have the potential to produce increased ambient noise levels in the vicinity; however, they would be housed within structural buildings to minimize operational noise increases. Once constructed, the headquarters facility expansion would produce minimal noise associated with normal operation of a business. All near-term and long-term facilities would be designed in accordance with noise ordinances of the City or County, whichever the facility site is located within, to ensure that noise thresholds at the property boundary do not exceed day and nighttime limitations for neighboring land uses. Implementation of **Mitigation Measure NOISE-4** would ensure that operations of new facilities are in compliance with local noise ordinances. As a result, the facilities would not generate permanent increase ambient noise levels in the project vicinity, and impacts would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.10-3 to a less than significant level:

NOISE-4: PWD shall conduct post-construction noise measurements to ensure that operation of new equipment is in compliance with local noise ordinances at the property boundary. If operational noise exceeds local thresholds, then PWD shall implement further noise-reducing measures, such as enclosing noise generating-equipment, until facilities are in compliance with local ordinances.

5.3.10 Traffic

Traffic Increase

Impact 3.12-1: The proposed project could conflict with an applicable plan, ordinance or policy establishing measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Mitigation that requires PWD to require the construction contractor to prepare and implement a Traffic Control/Traffic Management Plan would reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Pump Stations, Storage Tanks, Wells and Headquarters Expansion (Near-Term and Long-Term). Construction of all pump stations, storage tanks, wells, and the PWD headquarters expansion would generate vehicle trips associated with both construction worker commutes and material and equipment hauling. These increases in trips per day on local and regional roadways could affect roadway capacity and circulation. **Mitigation Measure TR-1** would require implementation of a Traffic Control/Management Plan that would perform traffic counts to understand existing traffic

conditions on roadways near project facilities at the time they are constructed. Using these traffic counts, the Plan would recommend various mitigation measures, including minimizing deliveries during the A.M. and P.M. peak travel hours, as well as alternative haul routes to avoid traffic disruption to minimize disturbance on traffic flow. All activities encroaching onto State ROW would comply with the Caltrans Project Development Procedures Manual. Therefore, impacts associated with construction of near-term and long-term facilities would be less than significant.

Operation of the pump stations, storage tanks, and wells, would not require daily staffing and only periodic maintenance. Therefore, operation of these facilities would not generate a noticeable number of vehicular trips that would affect traffic volume or circulation on local or regional roadways. The headquarters expansion may involve a minimal increase in staff to accommodate future facilities to be constructed as part of the WSMP. Impacts to the existing circulation system associated with operation of the facilities would be less than significant.

Pipelines (Near-Term and Long-Term). Construction of pipelines could impede traffic flow because a large portion of the pipelines would be installed within ROW and could temporarily require partial or complete road closures. However, the Traffic Control/Management Plan required by **Mitigation Measure TR-1** would appropriately delineate work areas, and provide traffic control, flagging, and signage. Communication with residents and nearby school facilities as required by the Plan would help ensure potential traffic-related impacts are reduced. As a result, impacts would be less than significant.

None of the short-term pipelines are to be constructed in intersections operating at LOS E or F. There are numerous intersections in the project area operating at LOS D, which is an acceptable level of service for short durations of peak hours. There are also several intersections operating at LOS E in the project area. While construction of near-term and long-term pipelines within these LOS E intersections could impact traffic patterns, the short-term nature of the construction activity would not result in a negative change from LOS E to LOS F. With implementation of **Mitigation Measure TR-1**, impacts would be reduced to a less than significant level for construction of near-term and long-term pipelines. All activities encroaching onto State ROW would comply with the Caltrans Project Development Procedures Manual. Therefore, impacts associated with construction of near-term and long-term pipelines would be less than significant.

Operation of the pipelines would only require periodic maintenance. Any additional trips added by periodic maintenance would be negligible compared to overall traffic volumes in the area. Impacts to the existing circulation system associated with construction and operation of the near-term and long-term pipelines would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.12-1 to a less than significant level:

TR-1: PWD shall require the construction contractor to prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the City of Palmdale, Caltrans, and/or the County of Los Angeles prior to construction. The plan shall

include traffic counts on intersections near the proposed project facilities to determine existing traffic conditions. Based on these traffic counts, the Plan shall recommend mitigation to avoid impacts to existing traffic conditions. These mitigation measures shall include but shall not be limited to:

- Identification of hours of construction and hours for deliveries, potentially avoiding the A.M. and P.M. peak hours to minimize disturbance on traffic flow;
- Specification of both construction-related vehicle and oversize haul routes; alternative routes shall be proposed to avoid traffic disruption;
- Identification of limits on the length of open trench, work area delineation, traffic control, flagging, and signage requirements;
- Identification of all access and parking restrictions;
- Maintenance of access and minimize disruption to residence and business driveways at all times to the extent feasible;
- Layout of a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;
- For construction activities within one-quarter mile of a school facility, inclusion of a plan to coordinate all construction activities with the Antelope Valley Union High School District and Palmdale School District, at least two months in advance. The Antelope Valley Union High School District and the Palmdale School District shall be notified of the timing, location, and duration of construction activities. The implementing agencies shall require its contractor to maintain vehicle, pedestrian, and school bus service during construction through inclusion of such provisions in the construction contract;
- Specification of street restoration requirements pursuant to agreements with the local jurisdictions;
- Development of circulation and detour plans to minimize impact to local street circulation, including bikeways. This may include the use of signing and flagging to guide vehicles and cyclists through and/or around the construction zone; and
- Parking at staging areas to limit lane closures in the public right-of-way.

Emergency Access

Impact 3.12-5: The proposed project could result in inadequate emergency access. Mitigation that requires PWD to require the construction contractor to coordinate all construction activities with emergency service providers would reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long-Term). Fire protection, emergency medical services, and police services within the project area are provided by the Los Angeles County Fire Department, Los Angeles County Sheriff's Department, and California Highway Patrol (See Section 3.11, *Public Services* in the Draft PEIR for more details). Depending upon the timing, location, and duration of construction activities, construction of the facilities could delay emergency vehicle response times or otherwise disrupt delivery of emergency services. However, **Mitigation Measure TR-2** requires coordination with emergency service providers at least one month prior to construction. Adherence to this mitigation measure would reduce any potential impacts regarding emergency services to less than significant levels.

Finding: PWD has adopted and will implement the following mitigation measure that will reduce potentially significant Impact 3.12-5 to a less than significant level:

TR-2: PWD shall require the construction contractor to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.

Public Transit

Impact 3.12-6: The proposed project could conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities. Mitigation that requires PWD to require the construction contractor to consult and coordinate with Metrolink and the Antelope Valley Transit Authority; and to consult with the City and/or County would reduce potentially significant impacts to less than significant levels. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term and Long Term). Operation of the project would have no long-term impact on demand for alternative transportation or on alternative transportation facilities (i.e., for transit and bicyclists). However, construction of some of the facilities could disrupt the existing Antelope Valley Transit Authority (AVTA) bus routes within the project area due to construction activities within roadway ROW, which may result in partial lane closures, roadway closures and delays. Construction of some of the facilities would also occur adjacent to an existing segment Metrolink Antelope Valley Line. Furthermore, construction of the facilities could result in bike pathway and sidewalk closures in the project area. However, implementation of **Mitigation Measure TR-3** would require consultation with Metrolink and AVTA to minimize impacts to alternative transportation facilities and service. Further, implementation of **Mitigation Measure TR-4** would require consultation with local jurisdictions to develop plans to minimize any potential impacts to bicycle or pedestrian facilities. Impacts related to public transit, bicycle and pedestrian facilities would be less than significant.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.12-6 to a less than significant level:

TR-3: PWD shall require the construction contractor to consult and coordinate with Metrolink and the Antelope Valley Transit Authority at least one month prior to construction of pipelines within roadways or rights-of way that coincide with bus or train routes, to determine whether construction of the proposed project would affect bus stop locations or otherwise disrupt public transit routes. A plan shall be developed to relocate bus stops or reroute buses to avoid disruption of transit service.

TR-**4:** PWD shall require the construction contractor to consult with the City and/or County if bicycle or pedestrian facilities would be directly affected by construction activities. This consultation shall inform the circulation and detour plans included in the Traffic Control/Traffic Management Plan designed to minimize impact to local street circulation, including bikeways.

5.3.11 Tribal Cultural Resources

Tribal Cultural Resources

Impact 3.13-1: The Project could result in a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074. Mitigation that requires PWD to participate in California Native American Tribe consultation, as required by AB 52, would reduce potentially significant impacts to tribal cultural resources to a less than significant level. Therefore, this impact would be Less Than Significant with Mitigation.

Facts in Support of the Finding:

Storage Tanks (Long-Term). A total of 16 storage tanks could be constructed over the project's long-term planning period. The location of the long-term storage tanks can be seen on Figure 2-2 in the Draft PEIR; however, these locations are subject to change in the future. It is possible that the construction of the storage tanks could impact tribal cultural resources. Implementation of **Mitigation Measure TCR-1** would ensure that Native American consultation occurs to satisfy the requirements of AB 52 for implementation of future project components. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Pumps (Long-Term). The project includes four new pumps at five existing pump stations, as well as six new pump stations within the project area. Locations are preliminary in nature and it is possible that the construction of the pump stations could impact tribal cultural resources. Implementation of **Mitigation Measure TCR-1** would ensure that Native American consultation occurs to satisfy the requirements of AB 52 for implementation of future project components. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Pipelines (Long-Term). Construction of long-term pipelines have the potential to impact archaeological resources. Any impacts to archaeological resources would be considered significant without mitigation. Implementation of **Mitigation Measure TCR-1** would ensure that Native American consultation occurs to satisfy the requirements of AB 52 for implementation of future project components. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Wells (Long-Term). The wells would be located in the northern and eastern portion of the PWD service area, in an undeveloped area just east of developed land containing a high school and residential land uses. Construction of the wells could impact tribal cultural resources. Implementation of **Mitigation Measure TCR-1** would ensure that Native American consultation occurs to satisfy the requirements of AB 52 for implementation of future project components. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Headquarters Expansion (Long-Term). The headquarters expansion would occur on developed land on the existing PWD headquarters parcel. Construction of the headquarters expansion could impact tribal cultural resources. Implementation of **Mitigation Measure TCR-1** would ensure that Native American consultation occurs to satisfy the requirements of AB 52 for implementation of future project components. With implementation of this mitigation measure, the impact would be reduced to a less than significant level.

Finding: PWD has adopted and will implement the following mitigation measures that will reduce potentially significant Impact 3.13-1 to a less than significant level:

TCR-1: Future AB 52 Consultation: Prior to development of all long-term WSMP components, PWD shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice. Formal notification shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the PWD contact information, and a notification that the California Native American tribe has 30 days from receipt of the letter to request consultation. PWD shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the definition of tribal cultural resources provided in CEQA Sections 21074(a)(1) or 21074(a)(2) that could be affected by subsequent phases of the project. In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation.

In the event that tribal cultural resources are identified, PWD shall develop mitigation measures, including, but not limited to, those recommended in Section 21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource, in consultation with the California Native American tribe. Consultation shall be considered complete when the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or when a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

5.3.12 Cumulative Impacts

Cumulative impacts to aesthetics; air quality; biological resources; cultural resources; geology, soils, and seismicity; hazards and hazardous materials; hydrology and water quality; land use, planning, and recreation; traffic and transportation; and tribal cultural resources would be significant but would be reduced to below the level of significance with mitigation measures.

All other cumulative impacts would have no impact (see section 5.1.1 above), less than significant impacts (see section 5.2.1 above), or potentially significant and unavoidable impacts (see section 5.4.1 below).

5.4 Findings Regarding Potentially Significant and Unavoidable Impacts

Temporary Increase in Ambient Noise Levels

Impact 3.10-4: The project could result in temporary or periodic increases in ambient noise levels in the project vicinity above levels existing without the project. Mitigation that requires PWD to require construction contractors to comply with municipal or county code requirements related to noise; to secure noise waivers for nighttime construction; to identify and map sensitive receptors within 800 and 4,500 feet; to muffle, shield, or shroud construction equipment intakes and exhaust on construction equipment and impact tools; to locate construction equipment and staging areas as far as possible from sensitive receptors; to enclose construction equipment where practical; and to communicate with nearby school administrators to limit disturbance would be implemented to reduce impacts associated with noise to the greatest extent feasible. This impact would remain Significant and Unavoidable with mitigation.

Facts in Support of the Finding:

All Facilities (Near-Term). During construction of the near-term facilities, temporary or periodic increases in ambient noise levels in and around each project site would result from the operation of construction equipment. The construction activities for each project facility could expose nearby existing land uses to increased noise levels as high as 89 dBA during excavation activities, which would result in a substantial ambient noise increase over existing ambient noise levels at that existing land use. Since the near-term storage tanks, pump stations, and most near-term pipelines would be located in unincorporated areas of Los Angeles County, in order for excavation and finishing noise for the near-term facilities to be below the County daytime residential threshold of 50 dBA, construction would have to occur at an approximate distance of 4,500 feet or greater from a sensitive receptor. Several near-term components would be constructed adjacent to (less than 100 feet from) sensitive residential use receptors, including new pumps at existing pump stations EB-01, FB-01, FB-02, and various pipeline segments. Although implementation of **Mitigation Measure NOISE-1** would reduce construction noise levels associated with the project to the maximum extent feasible, under circumstances where facilities or sensitive receptors are located immediately adjacent to existing sensitive land uses, particularly for construction of EB-01, FB-01, FB-02, and various pipeline segments in the near-term, the noise impacts related to a substantial temporary or periodic increase in ambient noise levels above levels existing without the project could be significant. Therefore, this temporary impact associated with construction of near-term project facilities is considered potentially significant and unavoidable.

All Facilities (Long-Term). During construction of the long-term facilities, temporary or periodic increases in ambient noise levels in and around each project site would result from the operation of construction equipment. The construction activities for each project facility could expose nearby existing land uses to increased noise levels as high as 89 dBA during excavation activities, which would result in a substantial ambient noise increase over existing ambient noise levels at that existing land use. Long-term facilities would be located both within unincorporated Los Angeles County and the City of Palmdale. Based on the noise levels described in Table 3.10-9 and Table 3.10-10 in the Draft EIR, in order for excavation and finishing noise for the long-term facilities to be below the County daytime residential threshold of 50 dBA or City daytime residential threshold of 65 dBA, construction would have to occur at an approximate distance of 4,500 feet or 800 feet, respectively, from a sensitive receptor. Well drilling would have to occur at approximately 1,600 feet and 400 feet, respectively, to be below these thresholds. Given the preliminary locations of long-term facilities in the WSMP, there is potential for construction to occur in proximity to sensitive receptors that are closer than 4,500 feet or 800 feet. Although implementation of **Mitigation Measure NOISE-1** would reduce construction noise levels associated with the project to the maximum extent feasible, under circumstances where facilities or sensitive receptors are located immediately adjacent to existing sensitive land uses, the noise impacts related to a substantial temporary or periodic increase in ambient noise levels above levels existing without the project could be significant. Therefore, this temporary impact associated with construction of long-term project facilities is considered potentially significant and unavoidable.

Finding: PWD has adopted and will implement the following mitigation measures, however, implementation of WSMP facilities would temporarily have potentially significant and unavoidable impacts on ambient noise levels.

Implement **Mitigation Measure NOISE-1**

5.4.1 Cumulative Impacts

Cumulative Noise Impacts

Impact 4-10: Concurrent construction of the proposed project and related projects in the geographic scope could result in cumulative short-term impacts to noise.

Facts in Support of the Finding:

All Facilities (Near-Term). When added to the cumulative scenario, the effects of the proposed project would contribute incrementally to the cumulative impacts on noise and vibration because WSMP pipelines, storage tanks, pump stations, wells, and the headquarters expansion might be constructed simultaneously and within exactly the same streets as some capital improvement projects (CIP), such as the City of Palmdale 10-Year Capital Improvement Program. As a result, the combined effects of the projects in the geographic scope for noise could be cumulatively significant.

Because daytime construction noise is exempt from maximum noise thresholds identified in local noise ordinances, noise associated with daytime construction activities would not violate noise

ordinances. Implementation of Mitigation Measure NOISE-1 and NOISE-2 would restrict construction activities to daytime hours, between 7:00 a.m. and 7:00 p.m., Monday through Saturday, and would require other measures to reduce the effects of construction noise on sensitive receptors to less than significant levels. Mitigation Measure NOISE-3 would reduce ground-borne vibration and noise levels when construction activities occur adjacent to sensitive receptors and would result in less than significant impacts to sensitive receptors. Mitigation Measure NOISE-4 would ensure that operations of new facilities are in compliance with local noise ordinances. With implementation of these mitigation measures (notwithstanding the local noise ordinance exemption), the impacts associated with construction of the proposed project would be less than significant.

However, due to the immediate proximity of some WSMP near-term and long-term components to sensitive receptors, noise impacts related to a substantial temporary or periodic increase in ambient noise levels above existing levels would be a potentially significant and unavoidable impact even after implementation of mitigation measures. As a result, when added to the cumulative scenario of CIP Project 20, which would be constructed within the same streets and potentially simultaneously with the WSMP components, the cumulative impact would be cumulatively considerable. **Mitigation Measure CUM-1** would require PWD to coordinate construction of the WSMP with other agencies in the Antelope Valley to minimize temporary impacts to ambient noise levels where projects occur simultaneously and within exactly the same streets. Nevertheless, if projects are not able to be reconsidered to avoid the temporary ambient impacts, based on CIP requirements and other commitments, the project's incremental contribution to this noise impact would be cumulatively considerable. Even with implementation of mitigation measures, impacts would be potentially significant and unavoidable.

Finding: PWD has adopted and will implement the following mitigation measures, however, implementation of WSMP facilities would temporarily have potentially significant and unavoidable impacts on cumulative noise levels.

Implement **Mitigation Measures NOISE-1 through NOISE-4**

CUM-1: PWD shall communicate and coordinate project construction activities with other municipalities (e.g., City of Palmdale, County of Los Angeles) and agencies (e.g., Caltrans, LA County DPW) in the Antelope Valley. Phasing of project construction shall be coordinated to minimize cumulative impacts to noise and vibration and traffic and transportation.

All other cumulative impacts would have no impact (see section 5.1.1 above), less than significant impacts (see section 5.2.1 above), or less than significant impacts with mitigation (see section 5.3.12 above).

6.0 Findings Regarding Alternatives to the Project

6.1 CEQA Requirements for Alternatives Analysis

CEQA Guidelines (§15126.6) set forth the following criteria for alternatives:

- **Identifying Alternatives.** The range of alternatives is limited to those that would avoid or substantially lessen any of the significant effects of the project, are feasible, and would attain most of the basic objectives of the project. Factors that may be considered when addressing the feasibility of an alternative include site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, economic viability, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. The specific alternative of 'no project' shall also be evaluated along with its impact.

- **Range of Alternatives.** An EIR need not consider every conceivable alternative, but must consider a reasonable range of alternatives that will foster informed decision-making and public participation. The "rule of reason" governs the selection and consideration of EIR alternatives, requiring that an EIR set forth only those alternatives necessary to permit a reasoned choice.

- **Evaluation of Alternatives.** EIRs are required to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. Matrices may be used to display the major characteristics of each alternative and significant environmental effects of each alternative to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed but in less detail than the significant effects of the project.

The alternatives evaluated by PWD in the PEIR are described and their associated environmental impacts are summarized below.

6.2 Alternatives to the Project

6.2.1 Alternatives Considered in the PEIR

Based on the "rule of reason" governance in the *CEQA Guidelines*, an EIR is only required to "set forth only those alternatives necessary to permit a reasoned choice" (*CEQA Guidelines* Section 15126(f). Additionally, Section 15126.6(e) of the *CEQA Guidelines* requires that an EIR include analysis of a "no project" alternative. As a result, this PEIR considered two Project alternatives: the Reduced Project Alternative and the No Project Alternative.

Alternative 1: Reduced Project Alternative

Under the Reduced Project Alternative, PWD would only implement the WSMP near-term project components which address existing water system deficiencies that critically affect the ability of PWD to provide a reliable water supply to its customers. These components are the highest priority for PWD and are planned to be constructed prior to 2020. The Reduced Project

Alternative would be implemented by PWD if growth projections in the service area do not materialize as planned. Many of the long-term components would be constructed to support future growth (i.e. new residential developments), and if this growth does not occur, the need for long-term components becomes less necessary. Components in the Reduced Project Alternative include Storage Tanks ES-01, FS-01, and ES-03; Pumps EB-01, FB-01, and FB-02 to be constructed at existing pump stations; Fire flow pipelines FF-01, FF-04, FF-05, FF-06, and FF-07 and other age-based pipeline improvements and expansions. The long-term project components are not considered to be immediately critical or high priority to PWD, and would not be constructed as part of the Reduced Project Alternative.

Implementation of the Reduced Project Alternative would meet some of the project objectives because, fundamentally, this alternative would be implemented only if population growth and associated water demand was less than anticipated. The highest-priority components would be constructed in order to improve and replace existing PWD water system infrastructure. However, without construction of WSMP long-term components, the Reduced Project Alternative would not meet the project objective of providing infrastructure to meet future growth within PWD's service area. Therefore, implementation of the Reduced Project Alternative would not holistically address PWD's need for ensuring a reliable water supply capable of meeting increased water demand within its service area.

As described on pages 6-2 through 6-8 of the Draft PEIR, the Reduced Project Alternative results in similar resource impacts as the near-term components of the WSMP. However, since the Reduced Project Alternative does not include the long-term components of the project, it results in fewer environmental impacts to aesthetics, air quality and greenhouse gas emissions, biological resources, hazards and hazardous materials, hydrology and water quality, traffic and transportation, utilities and energy, and cumulative impacts. The reductions in impacts are based in large part on the fewer number of components to be built over a shorter period of time than the project. It should be noted that while the Reduced Project Alternative lessens noise impacts, it does not eliminate altogether the potentially significant and unavoidable impact conclusion reached for the project regarding temporary increases in ambient noise levels during construction.

Alternative 2: No Project Alternative

Under the No Project Alternative, PWD would not implement their Capital Improvement Program (CIP), which would hinder PWD's ability to holistically address existing hydraulic system deficiencies, replace aging infrastructure, or provide the facilities necessary to meet future growth. PWD would continue to use the existing water distribution system to convey water throughout its service area. Existing PWD facilities include 21 storage reservoirs, 17 booster pump stations, 23 active groundwater wells, 14 pressure reducing stations, and approximately 412 miles of pipelines (PWD 2016). PWD would continue to maintain existing infrastructure, and facilities specifically included in the CIP that are aging, required to meet fire flow requirements or address system deficiencies, would be constructed or modified individually on an ad hoc basis. While PWD could continue to replace or modify infrastructure as needed, the benefits of a comprehensive approach to project implementation under the CIP would not occur under the No Project Alternative. Without the holistic approach and associated benefits of CIP project

implementation, PWD could encounter delays in implementing projects related to environmental reviews, local approvals, and other factors not envisioned at this time. Under the No Project Alternative, PWD's ability to provide potable water to its customers could be at risk, due to delay of individual project implementation and other obstacles.

Implementation of the No Project Alternative would avoid each of the potentially significant impacts of the project but would not provide the benefits of improving and replacing existing PWD water system infrastructure, or provide new infrastructure to meet future growth within PWD's service area. Therefore, implementation of the No Project Alternative would not meet any of the stated project objectives and would not address PWD's need for ensuring a reliable water supply capable of meeting increased water demand in the Antelope Valley.

6.2.2 Environmentally Superior Alternative

Section 15126.6(e) of the *CEQA Guidelines* requires the lead agency to identify which of the alternatives other than the no-project alternative is environmentally superior. The Draft PEIR concludes that the Reduced Project Alternative would be the environmentally superior alternative.

As stated above and in Chapter 6 of the Draft PEIR, the Reduced Project Alternative presents a tradeoff between achieving project objectives and impacting the environment. The Reduced Project Alternative would meet some of the project objectives by constructing the highest-priority components in order to improve and replace existing PWD water system infrastructure. However, without construction of long-term components proposed by the WSMP Project, the Reduced Project Alternative may not meet the project objective of providing infrastructure to meet future growth within PWD's service area.

In terms of impacts, the Reduced Project Alternative results in the same resource impacts as the near-term components of the WSMP. However, since the Reduced Project Alternative does not include the long-term components of the project, it results in fewer environmental impacts to aesthetics, air quality and greenhouse gas emissions, biological resources, hazards and hazardous materials, hydrology and water quality, traffic and transportation, utilities and energy, and cumulative impacts. It should be noted that while the Reduced Project Alternative lessens noise impacts, it does not eliminate altogether the potentially significant and unavoidable impact conclusion reached for the project regarding temporary increases in ambient noise levels during construction.

7.0 Additional Findings

7.1 Certification of the PEIR

In accordance with CEQA, PWD and its Board of Directors have considered the effects of the project on the environment, as shown in the Draft PEIR, Final PEIR, and the whole of the administrative record, prior to taking any action to approve the project. The Final PEIR was released for the required 10-day circulation to Draft PEIR commenting parties on November 15, 2018, and presented to the Board of Directors on November 26, 2018. The Board of Directors has

reviewed and considered the Draft PEIR and Final PEIR and the information relating to the environmental impacts of the project contained in those documents and certifies that the PEIR has been prepared and completed in compliance with CEQA. By adopting these Findings, the Board of Directors ratifies and adopts the conclusions of the Final PEIR as set forth in these Findings, except where such conclusions are specifically modified by these Findings. The Final EIR and these Findings represent the independent judgment and analysis of the Board of Directors.

7.2 Changes to the Draft PEIR and Need to Recirculate

In the course of responding to comments received during the public review and comment period on the Draft PEIR, certain portions of the Draft PEIR have been modified slightly for further clarification. None of this information has revealed the existence of: (1) a significant new environmental impact that would result from the project or an adopted mitigation measure; (2) a substantial increase in the severity of an environmental impact; (3) a feasible project alternative or mitigation measure not adopted that is considerably different from others analyzed in the Draft EIR that would clearly lessen the significant environmental impacts of the project; or (4) information that indicates that the public was deprived of a meaningful opportunity to review and comment on the Draft PEIR.

Consequently, PWD finds that the amplifications and clarifications made to the Draft PEIR in the Final PEIR do not collectively or individually constitute significant new information within the meaning of Public Resources Code Section 21092.1 and CEQA Guidelines Section 15088.5. Recirculation of the Draft PEIR or any portion thereof, is therefore not required.

8.0 Statement of Overriding Considerations

CEQA requires that a public agency balance the benefits of a project against its unavoidable environmental risks in determining whether to approve the project, and authorizes a public agency to approve a project with significant and unavoidable environmental impacts if it concludes that such impacts are acceptable because they are outweighed by the benefits of the project. In making this determination, PWD is guided by *CEQA Guidelines* Section 15093 which provides as follows:

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

(b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the Final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

(c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

Consistent with these guidelines and the California Public Resources Code section 21081(b), PWD has made a good-faith effort to eliminate, minimize, and render less than significant all potentially significant adverse impacts that may result from implementation of the project through the adoption of feasible mitigation measures. Despite this effort, PWD concludes that the project may result in potentially significant and unavoidable impacts to noise during construction of near-term and long-term Project components. However, after considering the project and the entire administrative record and weighing the project's benefits against its potential environmental impacts, PWD concludes that the benefits of the project outweigh its potentially significant and unavoidable adverse environmental impacts.

PWD recognizes the importance of meeting the WSMP's primary objectives. Namely, PWD recognizes the importance of providing cost-effective and fiscally responsible water services that meet the water quantity, water quality, system pressure, and reliability requirements of PWD customers; improving or replacing existing PWD water system infrastructure; providing future water system infrastructure necessary to meet projected growth of the PWD service area; and ensuring potable water supply capable of meeting overall annual water demand that is projected to double over the next 25 years. The project would involve a suite of mitigation measures to reduce noise impacts during construction to the surrounding environment and sensitive receptors. While the project impacts may not be reduced to a level of less than significance, the project specifically balances the needs for PWD to meet the consumptive water demands of its ratepayers and the need to protect the environment of Southern California to the greatest extent feasible. For the entire project, PWD has determined, based on the amount of information available at this time, that certain project impacts may be potentially significant even after implementation of mitigation.

8.1 Impacts of the Project and Associated Mitigation Measures

As described in Section 5.4 above, the PEIR identifies the following potentially significant and unavoidable impacts associated with the WSMP:

- Impact 3.10-4: The project could result in temporary or periodic increases in ambient noise levels in the project vicinity above levels existing without the project.
- The project could result in cumulative impacts associated with temporary or periodic increases in ambient noise levels.

For the project, Mitigation Measures NOISE-1, NOISE-2, NOISE-3, NOISE-4, and CUM-1 are incorporated into the PEIR and the MMRP, demonstrating a commitment by PWD to avoid, minimize, and compensate for these environmental impacts. However, even after implementation of mitigation measures, these two impacts remain potentially significant and unavoidable.

8.2 Benefits of the Project

CEQA requires the lead agency to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. PWD finds that each of the following benefits of the WSMP Project supports the overriding of the significant impacts identified above.

- The project would provide cost-effective and fiscally responsible water services that meet the water quantity, water quality, system pressure, and reliability requirements of PWD customers.
- The project would involve the improvement and replacement of existing PWD water system infrastructure.
- The project would provide future water system infrastructure necessary to meet projected growth of PWD service area.
- The project would ensure PWD has a potable water supply capable of meeting overall annual water demand that is projected to double over the next 25 years.

8.3 Conclusion

PWD acknowledges that despite all feasible mitigation measures, approval of the WSMP may result in significant adverse and unavoidable impacts associated with noise-generating construction equipment. However, for the foregoing reasons and based on the Draft PEIR and Final PEIR and the entire administrative record, PWD hereby determines that when the impacts are balanced against the project's specific benefits, and when considering the long-term benefits as part of the project implemented over 25 years, on the whole the benefits of the project outweigh the impacts and warrant approval of the project. While the project's impacts cannot be definitively reduced to a level of less than significance, the project specifically balances the needs for PWD to meet the water quantity, water quality, system pressure and reliability requirements of its customers and the need to protect the environment of Southern California to the greatest extent feasible.

PWD further finds that each of the overriding considerations set forth above constitutes a separate and independent basis for finding that the benefits of the project outweigh the potentially unavoidable adverse environmental effects, and warrants approval of the project.

MITIGATION MONITORING AND REPORTING PROGRAM

Palmdale Water District Water System Master Plan Final Program Environmental Impact Report

In accordance with Section 15091(d) and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines, which require a public agency to adopt a program for reporting on or monitoring required changes or conditions of approval to substantially lessen significant environmental effects, the Mitigation Monitoring and Reporting Program (MMRP) is hereby adopted for this project.

This MMRP summarizes the mitigation commitments identified in the Palmdale Water District (PWD) Water System Master Plan Final PEIR (State Clearinghouse No. 2017021042). Mitigation measures are presented in the same order as they occur in the Final PEIR. The columns in the MMRP table provide the following information:

- **Mitigation Measure(s):** The action(s) that will be taken to reduce the impact to a less than significant level.
- **Implementation, Monitoring, and Reporting Action:** The appropriate steps to implement and document compliance with the mitigation measures.
- **Responsibility:** The agency or private entity responsible for ensuring implementation of the mitigation measure. However, until the mitigation measures are completed, PWD, as the CEQA Lead Agency, remains responsible for ensuring implementation of the mitigation measures occur in accordance with the program (CEQA Guidelines, Section 15097(a)).
- **WSMP Component:** The near-term and/or long-term WSMP component that each mitigation measure applies to.
- **Monitoring Schedule:** The general schedule for conducting each monitoring task, either prior to construction, during construction, and/or after construction.

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
Aesthetics													
AES-1: During project design, a landscape plan shall be prepared for proposed storage tanks that affect scenic resources. The landscape plan shall include measures to restore disturbed areas by replanting trees and/or reseeding with a native seed mix typical of the surrounding area. Vegetation screening shall also be included in order to assist in shielding the proposed aboveground facilities from public vantage points.	• Include mitigation measure in project design specifications. • Retain copies of the landscape plan and final design specifications in the project file. • Maintain written inspection records in the project file that verify compliance with landscape plan specifications after construction is complete.	X			X					PWD; construction contractor; design contractor	X		X
AES-2: Aboveground buildings/structures shall be designed to have color palettes and vegetation screening as necessary to blend with the surrounding character of the site and to minimize contrasting features in the visual landscape.	• Include mitigation measure in project design specifications. • Retain copies of the landscape plan and final design specifications in the project file. • Maintain written inspection records in the project file that verify compliance with the mitigation measure after construction is complete.	X			X			X	X	PWD; construction contractor; design contractor	X		X
AES-3: Aboveground buildings/structures shall be designed to have similar aesthetic qualities to existing structures in the vicinity to minimize contrasting features in the visual landscape.	• Include mitigation measure in project design specifications. • Retain copies of the final design specifications in the project file. • Maintain written inspection records in the project file that verify compliance with the mitigation measure after construction is complete.					X		X	X	PWD; construction contractor; design contractor	X		X
AES-4: All new permanent exterior lighting associated with proposed WSMP components shall be shielded and directed downward to avoid light spill onto neighboring parcels and visibility from surrounding public vantage points.	• Include mitigation measure in project design specifications. • Retain copies of the final design specifications in the project file. • Maintain written inspection records in the project file that verify compliance with the mitigation measure after construction is complete.	X			X	X			X	PWD; construction contractor; design contractor	X		X
AES-5: The proposed WSMP aboveground facilities shall be designed to include non-glare exterior materials and coatings to minimize glare or reflection.	• Include mitigation measure in project design specifications. • Retain copies of the final design specifications in the project file. • Maintain written inspection records in the project file that verify compliance with the mitigation measure after construction is complete.	X			X	X		X	X	PWD; construction contractor; design contractor	X		X
AES-6: Lighting used during nighttime construction, including any associated 24-hour well drilling, shall be shielded and pointed away from surrounding light-sensitive land uses.	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.							X		PWD; construction contractor		X	
Air Quality and Greenhouse Gas Emissions													
AQ-1: The following mitigation measures shall be incorporated to minimize emissions of NOx associated with construction activities for the proposed project: • Construction activities shall require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) to the extent feasible. • Off-road diesel-powered construction equipment greater than 50 horsepower shall meet Tier 3 emissions standards, including Level 3 CARB-Certified diesel particulate filters at a minimum and Tier 4 for	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.				X	X	X	X	X	PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
equipment makes and models that are commercially available within the Mojave Desert Air Basin.													
AQ-2: For each individual project, PWD shall require by contract specifications that: • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for a period of five minutes or more to avoid excessive idling. • Construction activities shall minimize use of diesel-powered generators and rely on the electricity infrastructure where appropriate power requirements are available without the need to construct additional infrastructure. • Construction trucks shall be routed along haul routes to minimize travel adjacent to sensitive receptor areas where feasible.	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.				X	X	X	X	X	PWD; construction contractor	X	X	
Biological Resources													
BIO-1: Pre-Construction Focused Surveys for Rare Plants. The following measures are recommended to avoid and/or reduce potential impacts to special-status plants as a result of proposed project activities for near-term project components and long-term projects in undeveloped portions of the project area with suitable habitat. The preconstruction surveys for special-status plants shall follow CDFW's recent updated Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018). • A floristic survey for special-status plant species having potential to occur within and adjacent to the project area should be conducted by a qualified biologist for the aforementioned near-term project components and the long-term project components that are located in the San Andreas Rift Zone and the hilly topography south of it. The surveys shall cover the blooming period of all special-status plant species having potential to occur. The results of the survey should be documented in a report that will be submitted to CDFW • If the floristic survey is positive for any of the four special-status plant species (slender mariposa lily, Robbins' nemacladus, short-joint beavertail, and Mason's neststraw), or any other sensitive plant species, and the avoidance of the special-status plant species is not feasible, coordination with CDFW would be required to determine suitable mitigation. The mitigation strategy may include avoidance, on-site or off-site restoration/enhancement areas, translocation, and/or seed collection, and exotic weed control. Restoration/enhancement areas for special-status plant species should be situated adjacent to protected open space and not result in isolated islands of habitat. If restoration and/or translocation are needed, a restoration/revegetation plan must be prepared and approved by CDFW. At a minimum, the plan should include a description of the existing conditions, site selection criteria, site preparation and planting methods, maintenance and monitoring schedule, performance standards, adaptive management strategies, contingency actions should success criteria not be met, identification of responsible parties, and a sufficient funding mechanism to assure that management and reporting requirements occur in perpetuity.	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to conduct a floristic survey. • Retain copies of floristic survey report in the project file. • If results of the survey are positive, coordination with CDFW is required to determine suitable mitigation. • Retain copies of all correspondence with CDFW, if necessary, in the project file. • Retain copies of reports or plans documenting implementation of any required mitigation in the project file.	X		X	X	X	X			PWD; construction contractor	X	**X**	**X**

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
BIO-2: Pre-Construction Focused Surveys for Special-status Reptiles. The following measures are recommended to avoid and/or reduce potential impacts to special-status reptiles (coast horned lizard and silvery legless lizard) as a result of proposed project activities on the aforementioned near-term project components and in portions of the project area with suitable habitat for the species: • A qualified biologist should conduct a preconstruction clearance survey throughout proposed impact areas for silvery legless lizard and coast horned lizard. If individuals are observed within or near the project work areas during preconstruction clearance surveys or construction monitoring, a qualified biologist should relocate the individuals to suitable habitat outside of the proposed impact areas so that construction-related impacts are avoided. • A qualified biologist should monitor the removal of vegetation to confirm special-status species are not impacted. • Prior to the commencement of construction activities, construction personnel should check under stationary equipment to confirm no wildlife species are present. • All trash should be collected daily and taken offsite for proper disposal.	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to conduct the pre-construction clearance survey, relocate special-status reptiles if necessary, and monitor vegetation removal. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X		X	X	X	X	X		PWD; construction contractor	X	X	
BIO-3: Nesting Bird Surveys. If project activities occur within the bird nesting season (generally defined as February 1st through August 31st), a qualified biologist should conduct a nesting bird survey within two weeks of the anticipated start date to identify any active nests within 300 feet of impact areas for most bird species, but 500 feet for raptors. If an active nest is found, the nest should not be impacted and project activities should be conducted as recommended by the biologist to avoid the nest, such as implementation of suitable buffer zones or postponing construction until the young have fledged and are no longer associated with the nest. A common nest buffer for most bird species is 300 feet, whereas raptors may require a buffer up to 500 feet; however, avoidance buffers may be reduced within urban areas, where appropriate, at the discretion of the biologist.	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to conduct surveys to identify active nests within 300 feet of project impact areas (500 feet for raptors), and, if an active nest is found, recommend measures to avoid impacts to the nests (i.e. implementing buffer zones, postponing construction). • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X		X	X	X	X	X		PWD; construction contractor	X	X	
BIO-4: Protocol Burrowing Owl Surveys. There is marginal breeding/wintering habitat for the species at the following near-term project components: ES-01, FS-01, ES- 03, Pipeline FF-05, FF-06, the Pipeline along 47th Street East, and the Pipeline west of Lakeview Drive. A burrowing owl habitat assessment using CDFW protocols (CDFW 2012) should be conducted by a qualified biologist for these near-term project components and any long-term project component that is located within areas that are determined to have potential to support the species. For the near-term and long-term project components in areas that are assessed as having potential habitat to support burrowing owl, presence/absence surveys will be conducted per CDFW protocol (CDFW 2012), as follows: • Four site visits are necessary to complete the protocol. For breeding season surveys, at least one site visit will be conducted between February 15 and April 15, and a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after 15 June. The initial survey will consist of the project site and a buffer of 150 meters, where access is available, that will be covered by qualified biologists using transects spaced seven to 20 meters apart, adjusting for vegetation height and density. All potential burrows used by burrowing owl as determined by the presence of one or more burrowing owls, pellets, prey remains,	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to conduct surveys to delineate the extent of potential burrowing owl habitat and burrowing owl presence/absence, as applicable, at near-term and long-term project components. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain copies of survey report and inspection notes during construction in the project file. • If results of the survey are positive, coordination with CDFW is required to determine suitable mitigation.	X		X	X	X	X	X		PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
whitewash, or decoration will be mapped using a GPS device. Follow up surveys will then check any burrows that have been mapped. If conducting non-breeding season surveys, the same methods for breeding season surveys, but the three follow up visits will be spread evenly throughout the nonbreeding season. • If the surveys are positive for the presence of burrowing owl, CDFW will be consulted on how to proceed to avoid and minimize potential project-related impacts to this species. Mitigation and avoidance measures may include no-work buffers and/or seasonal limitations for burrows that cannot be avoided. Burrowing owl artificial burrow and exclusion plans are a potential option for burrows that would be directly impacted by project activities.													
BIO-4a: Pre-construction Habitat Assessment. Prior to ground disturbing activities for near-term storage tanks and pipelines and all long-term project components, a habitat assessment shall be conducted by a qualified biologist to determine the potential for the following special-status wildlife species to occur within project areas: Mohave ground squirrel, desert tortoise, desert kit fox, and American badger. If the habitat assessment determines there is potential for one of the special-status species to be present within a certain buffer of the construction zone, then additional measures shall be implemented as described below. For Mohave ground squirrel and desert tortoise, focused surveys shall be conducted prior to project implementation to determine presence or absence. If the habitat assessment determines there is no potential to occur, then no further mitigation is required. • Mohave ground squirrel - Wherever the project is occurring in areas containing suitable Mohave ground squirrel habitat, CDFW-protocol surveys for Mohave ground squirrel shall be conducted to determine presence/absence, which shall include a 100-foot buffer surrounding the limits of disturbance; or presence may be assumed and PWD shall pay an in-lieu fee to a CDFW-approved conservation area, such as an established mitigation bank. The mitigation ration of in-lieu fee amount shall be determined through consultation with CDFW prior to any ground-disturbing activities. If surveys are conducted and presence is confirmed, an incidental take permit shall be obtained prior to any ground-disturbing actives from CDFW in accordance with Section 2081 of the California Fish and Game Code. • Desert tortoise - Wherever the project is occurring in areas containing suitable desert tortoise habitat, surveys shall be conducted in accordance with the latest USFWS protocols. If desert tortoise is confirmed present, then PWD shall consult with CDFW to obtain California Endangered Species Act authorization and, if necessary, an incidental take permit prior to any ground disturbance that may impact occupied desert tortoise habitat during the life of the project. Once potential habitat is cleared of desert tortoise, or if surveys are negative, exclusionary silt fencing shall be installed around the project impact area to prevent animals from wandering onto the project site. The limits of the silt fencing shall be determined by a CDFW and/or USFWS-approved biologist to determine the maximum potential for exclusion. The fencing shall be buried a minimum of 10-inches below the ground surface to reduce the potential for animals to move onto the project site. • American badger and desert kit fox – If the habitat assessment identifies signs of occupation by American badger and/or desert kit fox (e.g., occupied or potential dens), the following measures should be implemented:	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to conduct habitat assessments for Mohave ground squirrel, desert tortoise, desert kit fox, and American badger. • If the habitat assessment is positive, and there is potential for species to occur, then retain a qualified biologist to implement additional measures for each species. • Retain copies of all correspondence with CDFW and USFWS in the project file. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain copies of survey report and inspection notes during construction in the project file.	X		X	X	X	X	X	X	PWD; construction contractor	X	x	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
– If species individuals are found to be present, the project area shall be avoided until the individuals are no longer present. Individuals shall be allowed to leave on its own without being harassed. If an individual does not vacate the project site, PWD would be required to coordinate with CDFW to determine the appropriate relocation methods, location, and timing. – If dens and signs of presence are found but no species individuals are found, a qualified biologist shall confirm the dens are no longer active. To prevent any species from entering the project site in the future, PWD and the construction contractor shall install exclusionary fencing around the project site, if feasible. A clearance survey shall be conducted prior to the restart of construction to confirm no species are present. Periodic monitoring shall be performed by a qualified biologist based on a frequency determined through consultation with CDFW. – PWD and the construction contractor shall follow protocols included in Mitigation Measure BIO-4c to prevent wildlife entrapment at project sites.													
BIO-4b: Worker Environmental Awareness Program. PWD shall be required to prepare a Worker Environmental Awareness Program (WEAP) that identifies methods for avoiding inadvertent impacts to special-status wildlife, plants and native vegetation communities that have the potential to occur in the project area. The WEAP shall include a meeting facilitated by a qualified biologist and attended by all construction personnel that describes the special-status species that could occur, measures and techniques for avoiding impacts, communication protocol, stop-work thresholds, and enforcement authorities and actions should a sensitive-status species be inadvertently impacted at any point during construction activities.	• Include mitigation measure in construction contractor specifications. • Retain a qualified biologist to prepare the WEAP and conduct meeting for all construction personnel. • Retain copies of personnel attendance at the WEAP meeting in the project file.	X		X	X		X	X		PWD; construction contractor	X		
BIO-4c: Wildlife Entrapment. During construction of all near-term and long-term components, all trenches, pits or other depressions that are not in active use be backfilled or covered immediately after use to prevent wildlife entrapment. Additionally: • A qualified biological monitor should inspect all depressions prior to backfilling to salvage any entrapped species observed. • If depressions cannot be immediately backfilled or covered, a qualified biological monitor should periodically inspect the depressions to remove any entrapped species. The frequency of inspection of depressions by the biological monitor would be dependent on ambient temperature and precipitation conditions because high heat levels or flooding may result in mortality of entrapped wildlife. • Depressions that cannot be immediately back filled or covered should be provided with escape ramps that could allow some mobile entrapped wildlife to escape. • All stockpiled pipe interiors should be inspected for wildlife presence by a qualified biological monitor immediately prior to pipe laying. Any wildlife observed seeking refuge inside a pipe should be safely evicted.	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain copies of inspection notes during construction in the project file.	X		X	X		X	X		PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
• Open-ended terminal pipes within any pipeline laying operation should be temporarily sealed if left unattended, to prevent wildlife from entering and becoming entrapped. • Handling of California Endangered Species Act-listed species entrapped in depressions shall only occur by entities possessing an Incidental Take Permit for that species.													
BIO-4d: Prohibition of Anticoagulant or Rodenticides. The use of anticoagulants and rodenticides that could result in secondary poisoning or other mortality of non-target species including but not limited to American badger and desert kit fox is prohibited during the life of the project and future project maintenance activities.	• Include mitigation measures in project design and maintenance specifications • Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain copies of inspection notes during construction in the project file.	X		X	X		X	X		PWD; construction contractor	X	X	X
BIO-5: Jurisdictional Waters Delineation and State Permitting. Near-term pipelines (e.g., the pipeline along 47th Street East and Pipeline FF-01) cross waters that may be jurisdictional and could thus discharge into Waters of the State or alter of the bed and banks of streams regulated under Fish and Game Code. A jurisdictional delineation for these near term pipelines shall be conducted to determine the limits of potential jurisdictional waters. The results of the formal jurisdictional waters delineation will be used during project design to determine if jurisdictional waters can be avoided. If jurisdictional water can be avoided, then no further mitigation is necessary. If jurisdictional water features will be potentially impacted by the proposed project, then a Report of Water Discharge will be submitted to the Lahontan RWQCB and, if deemed necessary, Waste Discharge Requirements will be obtained from the agency. Concurrently, a Notification of Lake or Streambed Alteration will be submitted to the CDFW and, if deemed necessary, a Lake or Streambed Alteration Agreement will be obtained. Conditions for the certification and agreement may require additional surveys for plants and wildlife, as well as best management practices to minimize impacts. For long-term storage tanks, pumps, pipelines, and wells, it is first recommended that project components be sited to avoid impacts to areas that appear to convey or pond water and any associated riparian habitat. If these areas cannot be avoided, a jurisdictional delineation for these facilities (as described above for near term pipelines) shall be conducted and associated permits obtained from RWQCB and CDFW.	• Include mitigation measure in project design specifications • Retain a qualified biologist to conduct a jurisdictional delineation to determine the limits of potential jurisdictional waters. • Include results of the formal jurisdictional waters delineation in project design contract specifications. • If applicable, retain copies of Waste Discharge Requirements and/or Lake or Streambed Alteration Agreement in the project file. • Retain a qualified construction monitor to conduct routine inspections of any conditions or mitigation requirements included in the permits, during and after construction. • Retain copies of construction monitoring report; jurisdictional delineation report; and any letter reports or permits submitted to/received from the Lahontan RWQCB and CDFW, if jurisdictional water cannot be avoided.				X	X	X	X		PWD; construction contractor	X	X	X
BIO-6: Native Desert Vegetation Removal Survey and Permit. Prior to ground disturbance, a vegetation survey shall be conducted to characterize, map and quantify the amount of native desert vegetation, including sensitive natural communities, that would be disturbed by project components. This shall include all areas within a minimum of 100-feet from the project's impact limits. If project components, near-term or long-term, within the boundaries of the City of Palmdale cannot be sited to avoid impacts to native desert vegetation species including sensitive natural communities as defined by CDFW, then a native desert vegetation removal permit will be necessary. This specifically applies to removal of Joshua trees and/or California junipers on project sites with a density equal to or greater than two individuals per acre (per the Joshua Tree and Native Desert Vegetation Preservation Ordinance. The PWD shall comply with all terms and conditions of the permit, including preparation and	• Include mitigation measure in project design specifications and construction contractor specifications. • Retain a qualified biologist to identify allowable limits of Joshua tree/California juniper removal as indicated in the measure, prepare a desert vegetation preservation plan, and evaluate health of onsite trees post-construction. • Include limits of Joshua tree/California juniper removal in project design specifications. • Include limits of Joshua tree/California juniper removal in construction contractor specifications. • Retain copies of written report, site plan depicting tree locations, long-term maintenance program (if necessary), and design and contractor specifications in project files.	X		X	X	X	X	X		PWD; construction contractor	X	X	X

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
implementation of a desert vegetation preservation plan. Associated conditions and measures could include but are not limited to: • A desert vegetation preservation plan prepared by a qualified biologist (i.e., desert native plant specialist) consisting of a written report and site plan depicting the location of each Joshua tree and/or California juniper and, if determined necessary by the City of Palmdale, a long-term maintenance program for any Joshua trees and/or California junipers left onsite. • Joshua trees and/or California junipers to be left onsite shall be fenced-off and left undisturbed during any grading activities or removed to a holding area until grading activities are completed. If two Joshua trees and/or California junipers per acre cannot be preserved onsite (the minimum standard of preservation), the trees shall be transplanted to an ecologically appropriate offsite location by the Palmdale Water District as approved by the City of Palmdale. • In lieu of transplantation of Joshua trees and/or California junipers from areas to be developed by the project, the Palmdale Water District may satisfy the requirements of the City code through payment of a fee to the City. Joshua trees and/or California junipers preserved onsite, in landscape easements, or landscape assessment districts are to be maintained in a healthy condition for a minimum of two (2) growing seasons. The trees will be evaluated after one year by a qualified biologist. Trees determined to be failing or that have died will be replaced as determined by the City.	• Perform site inspections to verify contractor compliance. • Retain inspection records in the project file.											
Cultural Resources													
CUL-1: Future Study – Historic Resources. Prior to development of long-term WSMP components that could potentially affect historic resources, PWD shall retain a Qualified Architectural Historian, defined as meeting the Secretary of the Interior's Professional Qualification Standards for architectural history (codified in 36 CFR Part 61; 48 FR 44738-44739), to conduct a historic resources assessment including: a records search at the South Central Coastal Information Center; a review of pertinent archives and sources; a pedestrian field survey; recordation of all identified historic resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the assessment. All identified historic resources shall be assessed for the project's potential to result in direct and/or indirect effects to those resources and any historic resource that may be affected shall be evaluated for its potential significance prior to PWD's approval of project plans and publication of subsequent CEQA documents. The Qualified Architectural Historian shall provide recommendations regarding additional work or treatment for significant resources that will be affected by the project prior to their demolition or alteration.	• Retain a Qualified Architectural Historian to prepare historic resource assessments for long-term WSMP components as applicable. • Implement recommendations from historic resources assessment as applicable. • Retain copies of historic resources assessments in the project file. • Retain copies of inspection/monitoring reports documenting implementation of recommendations from historic resources assessments in the project file.				X	X	X	X		PWD	X	X	
CUL-2: Retention of a Qualified Archaeologist. Prior to start of any ground-disturbing activities for all near-term and long-term projects (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PWD shall retain a Qualified Archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739) to oversee and ensure that all mitigation measures related to archaeological resources are carried out.	• Retain a Qualified Archaeologist to carry out all mitigation related to archaeological resources. • Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of mitigation implementation during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
CUL-3: Construction Worker Cultural Resource Sensitivity Training. Prior to the start of any ground-disturbing activity for all near-term and long-term projects, the Qualified Archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. PWD shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	• Retain a Qualified Archaeologist to coordinate with a Native American representative to conduct cultural resources sensitivity training for all construction personnel. • Include mitigation measure in construction contractor specifications. • Retain copies of personnel attendance at the sensitivity training in the project file.	X	X	X	X	X	X	X	X	PWD; construction contractor	X		
CUL-4: Archaeological Monitoring. Archaeological resources monitoring shall be conducted as follows: • During ground disturbance related to construction of near-term pipelines FF-01, FF-04, FF-05, FF-06, and FF-07 and the pipeline leading to pump station EB-01 to a depth of 3 feet (depth at which archaeological sensitivity decreases and paleontological sensitivity increases) • During ground disturbance related to construction of near-term storage tank FS-01 to the terminal depth of excavation or until bedrock is reached • During ground disturbance related to construction of any and all long-term project components that the Qualified Archaeologist determines to have a moderate-to-high archaeological sensitivity (to depths to be determined by the Qualified Archaeologist) (see Mitigation Measure CUL-6)	• Include mitigation measure in construction contractor specifications • Retain an appropriate number of qualified archaeological monitors to conduct monitoring of project-related ground disturbance as required. • Conduct periodic monitoring of mitigation commitments during construction. • Retain construction monitoring logs and reports in project file.	X		X	X	X	X	X	X	PWD; construction contractor		X	
CUL-5: Inadvertent Discovery of Archaeological Resources. For all near-term and long-term projects, in the event of the unanticipated discovery of archaeological materials and/or Native American cultural resources, regardless of location, PWD shall immediately cease all work activities in the area (within approximately 100 feet) of the discovery until it can be evaluated by the Qualified Archaeologist. The San Manuel Band of Mission Indians shall be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the qualified archaeologist makes his/her assessment, so as to provide Tribal input. Construction shall not resume until the Qualified Archaeologist has conferred with PWD and the San Manuel Band of Mission Indians on the significance of the resource. If it is determined that a discovered archaeological resource constitutes a historical resource or unique archaeological resource pursuant to CEQA, or a discovered Native American cultural resource constitutes a historical resource pursuant to CEQA, avoidance and preservation in place shall be the preferred manner of mitigation. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is determined to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Research Design and Treatment Plan shall be prepared and implemented by the Qualified Archaeologist in consultation with PWD and the San Manuel Band of Mission Indians. The Plan shall provide for the adequate recovery of the scientifically consequential information contained in the archaeological resource. PWD shall consult with the San Manuel Band of Mission Indians in	• Include mitigation measure in construction contractor specifications • If found, document and retain records regarding discovery of archaeological resources. • Retain construction monitoring report in project file. • As needed, retain a Qualified Archaeologist to prepare/implement an Archaeological Resources Research Design and Treatment Plan in consultation with PWD and interested tribal groups; and determine how to proceed with future ground disturbance in the project area.	X	X	X	X	X	X	X	X	PWD; construction contractor		X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resource, beyond those that are scientifically important, are considered, and the draft Treatment Plan shall be provided to the San Manuel Band of Mission Indians for review and comment prior to implementation. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s). The Qualified Archaeologist in consultation with the San Manuel Band of Mission Indians shall also determine the level of archaeological monitoring that is warranted during future ground disturbance in the area, and if work may proceed in other parts of the project area while treatment for cultural resources is being carried out. The disposition and treatment of any artifacts or other cultural materials encountered during project implementation shall be determined by PWD in consultation with the San Manuel Band of Mission Indians.													
CUL-6: Future Study – Archaeological Resources: Prior to development of all long-term WSMP components that involve ground disturbance, PWD shall retain a Qualified Archaeologist, defined as meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (codified in 36 CFR Part 61; 48 FR 44738-44739), to conduct an archaeological resources assessment including: a records search update at the South Central Coastal Information Center; a Sacred Lands File search at the Native American Heritage Commission; a pedestrian field survey, where deemed appropriate by the Qualified Archaeologist; recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the study, and providing an assessment of the project area's archaeological sensitivity and the potential to encounter subsurface archaeological resources and human remains. All identified archaeological resources shall be assessed for the project's potential to result in direct and/or indirect effects to those resources and any archaeological resource that cannot be avoided shall be evaluated for its potential significance prior to PWD's approval of project plans and publication of subsequent CEQA documents. The Qualified Archaeologist shall provide recommendations regarding archaeological monitoring to be conducted in accordance with Mitigation Measure CUL-4, protection of avoided resources and/or recommendations for additional work or treatment of significant resources that will be affected by the project.	• Include mitigation measure in construction contractor specification • Retain a Qualified Archaeologist to conduct an archaeological resources assessment in accordance with the mitigation measure. • Retain technical report in the project file.				X	X	X	X	X	PWD; construction contractor	X		
CUL-7: Retention of a Qualified Paleontologist. Prior to start of any ground-disturbing activities for all near-term and long-term projects (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil), PWD shall retain a Qualified Paleontologist meeting the Society of Vertebrate Paleontology standards (SVP, 2010). The Qualified Paleontologist shall conduct construction worker paleontological resources sensitivity training for all construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project area and the procedures to be followed if they are found. PWD shall retain documentation demonstrating that construction personnel attended the training.	• Include mitigation measure in construction contracting specification • Retain an appropriate number of qualified paleontologists to carry out all mitigation measure related to paleontological resources. • Retain documentation demonstrating the construction personnel attended the training.	X	X	X	X	X	X	X	X	PWD; construction contractor	X		

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
CUL-8: Paleontological Monitoring. Full-time paleontological resources monitoring for near-term and long-term projects shall be performed by a qualified paleontological monitor under the direction of the Qualified Paleontologist (SVP, 2010). Monitors shall have the authority to temporarily halt or divert work away from exposed fossils, in a radius of at least 50 feet, in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to be submitted to PWD. Paleontological resources monitoring shall be conducted as follows: • In sediments mapped as **low-to-high paleontological sensitivity** [i.e., Holocene alluvium (Qa)] all ground-disturbing activities that exceed 3 feet in depth (depth at which paleontological sensitivity increases) and occur in areas that have not been previously disturbed shall receive full-time paleontological monitoring. This depth is an estimate based on the recovery of fossils from the vicinity of the project area. The Qualified Paleontologist may reevaluate monitoring levels as construction progresses if the paleontological sensitivity of the area proves to be lower than anticipated. • In sediments mapped as **high paleontological sensitivity** [i.e., Pleistocene alluvium (Qoa, Qos), shale and sandstone of the Anaverde Formation (Tac, Tas), and the shale and sandstone of the Punchbowl Formation (Tpc, Tps)], all ground-disturbing activities that occur in areas that have not been previously disturbed shall be receive full-time paleontological monitoring, at all excavation depths. The Qualified Paleontologist may reevaluate monitoring levels as construction progresses if the paleontological sensitivity of the area proves to be lower than anticipated.	• Include mitigation measure in construction contracting specification • Retain a qualified paleontologist to monitor near-term and long-term project site excavations as required by the mitigation measure. • Retain copies of monitoring logs, discoveries, and the final mitigation report in the project file.	X	X	X	X	X	X	X	X	PWD; contractors		X	
CUL-9: Inadvertent Discovery of Paleontological Resources. For all near-term and long-term projects, if construction or other project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the SVP (2010) and curated with a certified repository. Following a discovery, the Qualified Paleontologist shall also provide PWD with recommendations regarding future paleontological monitoring, if deemed warranted.	• Include mitigation measure in construction contractor specification • If found, document and retain records regarding discovery of paleontological resources as required in the project file.	X	X	X	X	X	X	X	X	PWD; contractors		X	
CUL-10: Inadvertent Discovery of Human Remains. If human remains or funerary objects are encountered during activities associated with the project, then PWD shall halt work in the vicinity (within 100 feet) of the discovery and contact the County Coroner in accordance with Public Resources Code section 5097.98 and Health and Safety Code section 7050.5. If the County Coroner determines the remains are Native American, then the Coroner shall notify the California Native American Heritage Commission in accordance with Health and Safety Code subdivision 7050.5(c), and Public Resources Code section 5097.98. The California Native American Heritage Commission shall designate a Most Likely Descendant for the remains per Public Resources Code section 5097.98. Until the landowner has conferred with the Most Likely Descendant, the contractor shall ensure the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological	• Include mitigation measure in construction contractor specification • If found, document and retain records regarding discovery of human remains as required in the project file.	X	X	X	X	X	X	X	X	PWD; contractors		X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
standards or practices, and that further activities take into account the possibility of multiple burials.													
Geology, Soils, Seismicity and Mineral Resources													
GEO-1 Topsoil Preservation. All topsoil stripped from the ground surface during construction shall be used, to the extent feasible, for construction of other project elements and not hauled offsite. The upper six inches of topsoil shall be used as final cover to help re-establish vegetation post-construction as applicable. Temporary stockpiles shall be managed through the use of best management practices, which shall include but not be limited to wetting and/or covering stockpiles to prevent wind erosion. Implement **Mitigation Measures HYD-1.**	• Include mitigation measure in design contract specifications • Include mitigation measure in construction contractor specifications • Conduct periodic monitoring of best management practices and mitigation requirements. • Retain copies of monitoring reports in the project file.	X			X	X	X	X	X	PWD; construction contractor	X	X	X
GEO-2: A geotechnical report shall be prepared by a certified engineer for all facilities involving substantial ground disturbance or excavation. The report shall assess subsidence, liquefaction, landslide, expansive soil potential and collapsible soil potential of each facility site. Structural mitigation recommendations provided in the geotechnical report shall be incorporated into the design of the facility prior to construction. The contents of the geotechnical report shall vary depending on the jurisdiction and risks associated with each facility's location.	• Include mitigation measure in design contractor specifications • Retain qualified consultant to prepare Geotechnical Investigation • Retain a copy of Geotechnical Investigation report, recommendations, and design specifications in project file	X	X	X	X	X	X	X	X	PWD; design contractor	X		
Hazards and Hazardous Materials													
HAZ-1: In conjunction with **Mitigation Measure TR-1,** prior to initiating construction of pipelines within roadway rights-of-way, PWD shall prepare and implement a Traffic Control Plan that contains comprehensive strategies for maintaining emergency access. Strategies shall include, but are not limited to, maintaining steel trench plates at the construction sites to restore access across open trenches and identification of alternate routing around construction zones. In addition, police, fire, and other emergency service providers shall be notified of the timing, location, and duration of the construction activities and the location of detours and lane closures. The PWD shall ensure that the Traffic Control Plan and other construction activities are consistent with the Los Angeles County Operational Area Emergency Response Plan.	• Include mitigation measure in construction contractor specifications. • Retain a qualified consultant to prepare a Traffic Control Plan that is consistent with the Los Angeles County Operational Area Emergency Response Plan. • Retain copies of written notifications in the project file. • Retain copies of the Traffic Control Plan in the project file.			X			X			PWD; construction contractor	X	X	
HAZ-2: Implement Fire Hazard Reduction Measures. During construction of facilities located in areas designated as moderate, high, or very high fire hazard severity zone by CAL FIRE, PWD shall require that all staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the WSMP facilities, contractors shall require all vehicles and crews to have access to functional fire extinguishers at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.	• Include mitigation measure in construction contractor specifications. • Conduct routine inspections of construction equipment to ensure compliance. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X	X	X	X	X	X	X	X	PWD; construction contractor		X	
Hydrology													
HYD-1: Post-Construction Stabilization. The project shall be designed to maintain natural drainage paths and landscape features to the maximum extent possible to slow and filter runoff and maximize groundwater recharge. Following implementation of project facilities, areas of disturbance that do not contain aboveground structures shall be restored to pre-construction conditions with regard to vegetation cover. Existing vegetation shall be preserved to the maximum extent practicable during construction activities. If no vegetation was present prior to construction,	• Include mitigation measure in project design specifications • Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to ensure implementation of post-construction restoration activities.	X	X	X	X	X	X	X	X	PWD; contractors	X	x	x

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
the site shall be compacted to achieve soil stabilization. To ensure immediate soil stabilization of revegetated areas, a soil binder shall be applied following planting of vegetation.	• Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.												
HYD-2: Source Control BMPs. PWD shall implement source control BMPs for all activities at project sites, including but not limited to accidental spills and leaks, outdoor equipment operations, and building and grounds maintenance. Source control BMPs shall be designed to prevent chemicals associated with these activities from coming into contact with stormwater. PWD shall refer to the latest version of the California Stormwater Quality Association's Construction BMP Online Handbook during project operation to avoid impacts from spills or leaks of fuel or hazardous materials. Pertinent BMPs include but are not limited to WM-4: Spill Prevention and Control and WM-6: Hazardous Waste Management. If backup generators with onsite fuel storage will be included on pump station sites, PWD shall design a spill prevention and emergency response plan to implement in the event of a fuel spill to mitigate potential impacts to soil and groundwater.	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to ensure implementation of source control BMP's at project sites. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X			X			X	X	PWD; construction contractor		X	
HYD-3: Future Coordination with Antelope Valley Watermaster Engineer. For all future long-term wells to be implemented under the WSMP, PWD shall coordinate with the Watermaster to conduct a material harm review of the proposed groundwater wells as well as the available groundwater rights. PWD shall work with the Watermaster to ensure that well operation would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level such that the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.	• Prior to implementation of future wells, PWD to coordinate with the Antelope Valley Watermaster to prepare a material harm review. • Retain copies of correspondence with the Watermaster and any resulting studies or operation plans in the project file.							X		PWD	X		
Land Use and Recreation													
LU-1: For project facilities occurring within the AIA, PWD shall submit their proposed project plans to the Los Angeles County ALUC for review and comment prior to final design.	• Include mitigation measure in project design specifications. • Submit project plans to the Los Angeles County Airport Land Use Commission prior to final design. • Retain copies of project plans reflecting modifications recommended by the Los Angeles County ALUC. • Include comments from Los Angeles County ALUC in construction contractor specifications.			X			X	X		PWD; contractors	X		
LU-2: Prior to conducting construction activities within an AIA, PWD shall prepare an airport construction safety plan that would identify best management practices. The plan may include construction timeframes and hours, lighting and flagging requirements, air traffic control communication requirements, access and egress restrictions, equipment staging area requirements, personal safety equipment requirements for construction workers, and appropriate notification to aviators. The plan would be reviewed and approved by airport staff.	• Retain a qualified consultant to prepare an airport construction safety plan to identify BMPs. • Retain airport staff approval for the airport construction safety plan in the project file. • Include airport construction safety plan in construction contractor specifications. • Retain a qualified construction monitor to ensure airport construction safety plan requirements and BMPs are implemented during project construction. • Maintain written monitoring records in the project file to verify compliance.			X			X	X		PWD; contractors	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
LU-3: Prior to final design of the project components within an AIA, PWD shall identify the ground elevation associated with construction equipment associated with each project component constructed within the AIA and submit their project plans to airport staff for review and comment. Working with airport staff, PWD shall submit their design plans for airspace analysis (FAA Part 7460 review) to determine whether any of the construction equipment would protrude into protected airspace. If such objects are identified, the implementing agencies, airport staff, and FAA will identify appropriate steps to adjust project plans or include appropriate markings to identify hazards to aviators pursuant to FAA Part 7460.	• Include mitigation measure in design contractor specifications. • Prior to final design, submit airspace analysis to airport staff. • As applicable, incorporate requirements from airport staff and FAA regarding aviation hazards into final design plans and specifications. • Include requirements of airspace analysis in construction contractor specifications. • Retain a qualified construction monitor to ensure requirements of the airspace analysis are implemented during project construction. • Maintain written monitoring records in the project file to verify compliance. Retain copies of all correspondence with airport staff and the FAA in the project file.	X	X	X	X	X	X	X	X	PWD; contractors	X	X	
REC-1: For projects that would construct new facilities on public lands designated as open spaces, PWD shall coordinate with the City of Palmdale, Recreation and Culture Department to identify ways to minimize impacts of project construction and operation on recreational activities. Measures may include but are not limited to **Project Construction** • Posting of signage indicating dates during which use of recreational areas would be restricted due to construction • Placement of fencing to isolate construction areas and allow continued use of other areas of recreational parks and facilities • Timing of construction activities to avoid peak recreational seasons **Project Operation** • Use of vegetation to screen proposed facilities from view of adjacent recreational land uses • Security fencing to enclose new PWD facilities, as necessary	• Include mitigation measure in project design specifications to incorporate vegetation screening and security fencing as applicable. • Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to ensure requirements of the mitigation measure are implemented during project construction. • Maintain written inspection records in the project file to verify compliance • All monitoring records shall be retained in the project file.	X	X	X	X	X	X	X	X	PWD; contractors	X	X	X
REC-2: For projects that would construct pipelines or other new facilities within designated bikeways, PWD shall coordinate with the applicable jurisdiction to determine whether circulation and detour plans are required to minimize impacts to access to local bikeways. Circulation and detour plans may include the use of signage and flagging of cyclists through and/or around the construction zone.	• Include mitigation measure in construction contractor specifications. • As needed, prepare circulation and detour plans prior to initiation of construction activities within bikeways. • Conduct periodic monitoring to verify compliance with requirements of circulation and detour plans. Retain copies of written monitoring logs and reports in the project file • Retain copies of circulation and detour plans in project file.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	
Noise													
NOISE-1: PWD shall require the construction contractors to implement the following measures, as applicable, during construction of the proposed facilities: • Construction activities shall meet municipal or County code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays. • Prior to nighttime construction activities that would generate noise in excess of noise standards, the construction contractor shall secure a	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of noise reduction measures during project construction. • Maintain written inspection records in the project file to verify compliance.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
noise waiver from the relevant jurisdiction (City or County) and comply with any terms and conditions of the waiver. • Sensitive receptors (residences, residential areas, schools, and hospitals) within 800 feet (in the City) and 4,500 feet (in the County) of project construction activities shall be identified and mapped. • Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools. • Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive receptors including residences, schools, and hospitals. • Where feasible, construct barriers between noise sources and noise-sensitive land uses to block sound transmission. Enclose construction equipment where practicable. • If construction were to occur near a school, the construction contractor shall coordinate the most noise producing construction activities with school administration in order to limit disturbance to the campus.													
NOISE-2: PWD shall require the construction contractor to notify in writing all landowners and occupants of properties within 500 feet of the construction area of the construction schedule at least two weeks prior to groundbreaking. The construction contractor shall designate a Noise Complaint Coordinator who will be responsible for responding to complaints regarding construction noise. The Coordinator shall ensure that reasonable measures are implemented to correct any problems. A contact telephone number for the Coordinator shall be conspicuously posted at the construction site and included in the written notification of the construction schedule sent to surrounding properties.	• Include mitigation measure in construction contractor specifications. • Retain a qualified Noise Complaint Coordinator to implement the mitigation measure. • Maintain written documentation of all noise complaints and the resolution of complaints in the project file.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	
NOISE-3: PWD shall require the construction contractor to implement the following measures, as applicable, during construction of proposed facilities: • Sensitive receptors (residences, residential areas, schools, and hospitals) within 50 feet of project construction activities shall be identified and mapped. • Limit jack and bore drilling to at least 43 feet from sensitive receptors and 15 feet from any structures. • If jack and bore drilling must occur within 15 feet of any structure, the construction contractor shall conduct crack surveys before drilling to prevent potential architectural damage to nearby structures. The surveys shall be done by photographs, video tape, or visual inventory, and shall include inside as well as outside locations. All existing cracks in walls, floors, and driveways shall be documented with sufficient detail for comparison after construction to determine whether actual vibration damage occurred. A post-construction survey shall be conducted to document the condition of the surrounding buildings after the construction is complete.	• Include mitigation measure in construction contractor specifications. • Retain a qualified construction monitor to conduct routine inspections of vibration reduction measures during project construction. • Retain all crack survey documentation required by the mitigation measure. • Maintain written inspection records in the project file to verify compliance.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	X

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
NOISE-4: PWD shall conduct post-construction noise measurements to ensure that operation of new equipment is in compliance with local noise ordinances at the property boundary. If operational noise exceeds local thresholds, then PWD shall implement further noise-reducing measures, such as enclosing noise generating-equipment, until facilities are in compliance with local ordinances.	• Include mitigation measure in construction contractor specifications. • Retain a qualified noise consultant to conduct post-construction noise measurements and implement noise-reducing measures, as applicable. • Retain noise measurement results in the project file.	X	X	X	X	X	X	X	X	PWD			X
Traffic and Transportation													
TR-1: PWD shall require the construction contractor to prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the City of Palmdale, Caltrans, and/or the County of Los Angeles prior to construction. The plan shall include traffic counts on intersections near the proposed project facilities to determine existing traffic conditions. Based on these traffic counts, the Plan shall recommend mitigation to avoid impacts to existing traffic conditions. These mitigation measures shall include but shall not be limited to: • Identification of hours of construction and hours for deliveries, potentially avoiding the A.M. and P.M. peak hours to minimize disturbance on traffic flow; • Specification of both construction-related vehicle and oversize haul routes; alternative routes shall be proposed to avoid traffic disruption; • Identification of limits on the length of open trench, work area delineation, traffic control, flagging, and signage requirements; • Identification of all access and parking restrictions; • Maintenance of access and minimize disruption to residence and business driveways at all times to the extent feasible; • Layout of a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints; • For construction activities within one-quarter mile of a school facility, inclusion of a plan to coordinate all construction activities with the Antelope Valley Union High School District and Palmdale School District, at least two months in advance. The Antelope Valley Union High School District and the Palmdale School District shall be notified of the timing, location, and duration of construction activities. The implementing agencies shall require its contractor to maintain vehicle, pedestrian, and school bus service during construction through inclusion of such provisions in the construction contract; • Specification of street restoration requirements pursuant to agreements with the local jurisdictions; • Development of circulation and detour plans to minimize impact to local street circulation, including bikeways. This may include the use of signing and flagging to guide vehicles and cyclists through and/or around the construction zone; and • Parking at staging areas to limit lane closures in the public right-of-way.	• Include mitigation measure in construction contractor specifications. • Retain copies of all correspondence with the City of Palmdale, Caltrans, and the County of Los Angeles in the project file. • Retain copies of the Traffic Control/Traffic Management Plan in the project file. • Retain a qualified construction monitor to conduct routine inspections of traffic control measures during project construction. • Maintain a record of collected information and written notifications in the project file. • Maintain written inspection records in the project file to verify compliance.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
TR-2: PWD shall require the construction contractor to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.	• Include mitigation measure in construction contractor specifications. • Maintain a record of written notifications and correspondence with emergency service providers in the project file. • Retain a qualified construction monitor to conduct routine inspections of traffic control measures and emergency access during project construction. • Maintain written inspection records in the project file to verify compliance.	X	X	X	X	X	X	X	X	PWD; contractors	X	X	
TR-3: PWD shall require the construction contractor to consult and coordinate with Metrolink and the Antelope Valley Transit Authority at least one month prior to construction of pipelines within roadways or rights-of way that coincide with bus or train routes, to determine whether construction of the proposed project would affect bus stop locations or otherwise disrupt public transit routes. A plan shall be developed to relocate bus stops or reroute buses to avoid disruption of transit service.	• Include mitigation measure in construction contractor specifications. • Retain copies of all correspondence with Antelope Valley Transit in the project file. • Retain copies of plans to avoid disruption of transit service in the project file.	X	X	X	X	X	X	X	X	PWD; contractors	X	X	
TR-4: PWD shall require the construction contractor to consult with the City and/or County if bicycle or pedestrian facilities would be directly affected by construction activities. This consultation shall inform the circulation and detour plans included in the Traffic Control/Traffic Management Plan designed to minimize impact to local street circulation, including bikeways.	• Include mitigation measure in construction contractor specifications. • Retain copies of all correspondence with applicable jurisdictions in the project file. • Retain copies of the Traffic Control/Traffic Management Plan in the project file.	X	X	X	X	X	X	X	X	PWD; contractors	X	X	
Tribal Cultural Resources													
TCR-1: Future AB 52 Consultation. Prior to development of all long-term WSMP components, PWD shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice. Formal notification shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the PWD contact information, and a notification that the California Native American tribe has 30 days from receipt of the letter to request consultation. PWD shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. The purpose of the consultation shall be to identify sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the definition of tribal cultural resources provided in CEQA Sections 21074(a)(1) or 21074(a)(2) that could be affected by subsequent phases of the project. In addition, the California Native American tribe may request consultation regarding the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation. In the event that tribal cultural resources are identified, PWD shall develop mitigation measures, including, but not limited to, those recommended in Section 21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource, in consultation with the California Native American tribe. Consultation shall be considered complete when the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or when a party, acting in good faith	• PWD will contact affiliated tribes as required by AB 52 prior to design of long-term WSMP components. • Maintain a record of all formal notifications and consultation requests in the project file to verify compliance. • Retain a qualified construction monitor to conduct routine inspections of any mitigation activities agreed upon in tribal consultations during project construction.				X	X	X	X	X	PWD	X	X	

Mitigation Measures	Implementation, Monitoring, and Reporting Action	Near-Term			Long-Term					Responsibility	Monitoring Schedule		
		ST	P	Pipe	ST	P	Pipe	W	HQ		Before Construction	During Construction	After Construction
and after reasonable effort, concludes that mutual agreement cannot be reached.													
Cumulative Impacts													
CUM-1: PWD shall communicate and coordinate project construction activities with other municipalities (e.g., City of Palmdale, County of Los Angeles) and agencies (e.g., Caltrans, LA County DPW) in the Antelope Valley. Phasing of project construction shall be coordinated to minimize cumulative impacts to noise and vibration and traffic and transportation.	• Include mitigation measure in construction contractor specifications. • Maintain a record of communication with municipalities and agencies in the project file to verify compliance. • Retain qualified noise/traffic consultants to coordinate with municipalities and agencies on minimizing cumulative impacts associated with project construction. • Retain a qualified construction monitor to conduct and document routine inspections of any mitigation measures during construction.	X	X	X	X	X	X	X	X	PWD; construction contractor	X	X	