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Jubilee Mutual Water Company

Jubilee MWC/Gordon Acres Consolidation Project
Mitigated Negative Declaration and Initial Study

Prepared for

State Water Resources Control Board

DFA Project Number 3600297-005P

DFA Funding Agreement Number DFA-15-02004

DRAFT

February 2019

Prepared by

NV5, Inc.

NV5 Project No. 226815-0000042.03

NV5

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NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

DATE: February 25, 2019
TO: Interested Parties
FROM: State Water Resources Control Board, Division of Financial Assistance
RE: Proposed Mitigated Negative Declaration for the Jubilee MWC/Gordon Acres Consolidation Project

Project Location and Description

The Gordon Acres Water Company, Inc. (GAWC) service area is located within Lucerne Valley, California, a census-designated place located in western San Bernardino County (S11 T4N R1E), approximately 25 miles east of the City of Hesperia (Figure 1). The GAWC is approximately 6 miles east of the crossing of state routes 247 and 18, (SR-247, SR-18) and covers an area of approximately 160 acres (Figure 2). The Project area is located within Sections 11, 14, 15, 21, 22 and 27 of T4N R1E.

GAWC was established as a business entity (C0695227) in 1973. GAWC supplies potable water to approximately 43 active residential service connections (61 total active and inactive connections). The water company provides water to approximately 86 residents. There are no industrial or commercial connections other than the normally unmanned fire station. GAWC owns, operates, and maintains two wells, two pneumatic storage tanks, a distribution network, and standpipes utilized for fire suppression and blow off. GAWC system components are listed in Table 1.

Table 1. GAWC System Components

System Component	Year Constructed	Year Renovated	Description of Renovation
Water Sources			
Dido Well	1973	Various	Pump replacements; various repairs
Houston Well	1954	Various	Pump replacements; various repairs
Storage Tanks			
Dido Well Pneumatic Tank			
Houston Well Pneumatic Tank		2016	Pneumatic tank replacement
Pipelines	1955	Various	Repairs as needed

As noted in Sanitary Survey reports from San Bernardino County, Division of Environmental Health Services (DEHS), the condition of GAWC's water system is in general disrepair. GAWC's water system is divided into four components: water supply, water quality, water distribution system, and operational management. Refer to Figure 2 for a map of GAWC's existing water system.

GAWC has received a citation from DEHS. The citation is listed below and can be found in Appendix B of the Preliminary Engineering Report (NV5 2016).

- Citation for Noncompliance No. CC0000093 dated May 15, 2013 for exceedance of total coliform maximum contaminant level (MCL)

GAWC has recently received two Sanitary Survey reports, dated October 1, 2012 and September 20, 2013. The reports cite lack of storage, wellheads not in compliance, and several reports of water outages due to well failure, distribution system leaks, and system demand exceeding capacity. Both sanitary surveys are included in Appendix B of the Preliminary Engineering Report (NV5 2016).

As of February 2016, the Dido and Houston wells had a nitrate detection level of 9.3 ppm and 5.8 ppm, respectively. Both values exceeded the 50% of the maximum contaminant level. GAWC is now conducting quarterly samples for nitrate, per DEHS email on July 21, 2016.

The Preliminary Engineering Report (NV5 2016) considered various alternative remedies. These included construction of new pipelines, construction of new storage tanks and pump stations, well rehabilitation and consolidation with the adjacent Jubilee Mutual Water Company (JMWC) (System No. CA3600139).

JMWC is located 1.5 miles southwest of GAWC and approximately 200 feet higher in elevation than GAWC. JMWC's service area is approximately 1 square mile and serves 203 residential service connections. JMWC's boundaries are shown in Figure 2. JMWC's existing wells have the capacity to produce a sufficient amount of water to meet the demands of GAWC's existing customers as well as JMWC's existing customers. However, JMWC's water system contains deficiencies that need to be addressed, such as low and unreliable system pressure in its southern zone and a deteriorating pump station. For JMWC to provide service to GAWC's customers, improvements and additions to JMWC's water system would be necessary. Improvements to JMWC's storage and pump station facilities are detailed below and shown in Figure 2.

JMWC's existing storage tanks and existing distribution pipelines would continue to serve JMWC's north pressure zone. The existing storage tanks will also supply water and pressurize GAWC's existing service area. JMWC's existing storage tanks would provide storage capacity to both JMWC's northern pressure zone customers and to GAWC's existing customers while satisfying California Drinking Water Standards, California Fire Code, and Department of Business Oversight (DBO) requirements.

Approximately 7,200 linear feet of 6-inch C-900 PVC transmission piping would be installed to directly connect JMWC's existing wells (Nos. 3 and 4) to JMWC's existing storage tanks. The proposed tank site is located approximately 0.35-miles west of Camp Rock Rd. and 0.2-miles south of Rosewood St. This site was considered because has sufficient minimum elevation to serve JMWC's southern pressure zone at a compliant operational pressure. The total additional

volume would satisfy JMWC's southern pressure zone's storage needs per California Drinking Water Standards and California Fire Code requirements. From the proposed tank site, approximately 4,000 linear feet of 12-inch C-900 PVC distribution piping would be installed to connect the new storage tanks to JMWC's existing distribution system. New 4" transmission pipeline would be installed to connect the proposed storage tank and pump station. Two proposed pressure reducing stations would allow flow from JMWC's existing southern pressure zone to the northern pressure zone automatically if pressure falls below a set point in the northern pressure zone. A third pressure reducing station is proposed along the proposed pipeline connecting JMWC and GAWC's facilities. A fourth pressure reducing station is proposed near the new site of JMWC's existing pump station.

Under consolidation, GAWC's assets, operations, maintenance, and administrative tasks would be transferred to JMWC. Existing GAWC shareholders would become shareholders of and purchase water from JMWC. GAWC would be dissolved and would relinquish its water supply permit. Both GAWC and JMWC have passed resolutions to advance consolidation.

Based on the evaluation of the project alternatives, the distribution system consolidation of GAWC and JMWC was recommended by the PER. It is anticipated that GAWC will be dissolved and that JMWC will be the remaining entity. GAWC's water rights will be transferred to JMWC. The entire project would include:

- Construction of new distribution system for existing GAWC customers, consisting of approximately 13,800 linear feet of new 6" and 8" distribution pipelines and appurtenances (valves; fire hydrants; sampling stations; and service lines, meters, and meter boxes to existing customers) (Alternative P1)
- The rehabilitation of the Dido Well (Alternative WS1)
- The destruction of the Houston Well (Alternative WS3)
 - After the well destruction, the property (Assessor's Parcel Number (APN): 044904307) may be for sale
- The consolidation of GAWC and JMWC (Alternative C1), which will include:
 - Installation of transmission pipeline from existing JMWC wells to its existing storage tanks
 - Installation of transmission pipeline from JMWC's existing pump station to the new storage tank site
 - Construction of new storage tank site, south of JMWC's existing tank site, with two new 70,000-gallon tanks, with future third tank. Proposed tanks heights are approximately 27 feet above existing grade. Tanks will be equipped with a small tank-mounted solar panel to provide power to on-site instruments and signaling to other water company sites. Tanks will have tank-mounted communication poles extending to no more than 3 feet above top of proposed tanks.
 - Installation of new distribution pipeline from new storage tank site to the existing JMWC distribution system
 - Installation of distribution pipeline from JMWC's existing distribution system to the GAWC service area

- Removal of JMWC's existing pump station
- Construction of pump station at JMWC's existing tank/office site
- Installation of four pressure reducing stations
- Destruction of JMWC's Well No. 2
- Signal conduit between Wells Nos. 3 and 4 and existing JMWC tank and office site
- Signal conduit between JMWC's office site and proposed tank site
- Improving well heads, mechanical piping and installation at JMWC's Well Nos. 3 and 4, including communication pole no higher than 8 feet above grade.
- Minor improvements to existing JMWC tanks, including pipeline inlet and outlet reconfiguration, installation of level monitoring instruments, and attaching communication poles to the existing tanks to heights no more than 3 feet above existing tank height.
- Replacement of JMWC's existing Well No. 4 with a new well at the same site with depth and production approximating Well No. 4.
- Destruction of JMWC's Well No. 4

Document Review and Availability

The public comment period will extend from February 25, 2019 through March 26, 2019. The Initial Study and Mitigated Negative Declaration are available for public review at the following locations:

State Water Resources Control Board
 Division of Financial Assistance, Environmental Review Unit
 1001 I Street, 16th Floor
 Sacramento, CA, 95814

Submit comments to:

Gabriel Edwards
 State Water Resources Control Board
 Division of Financial Assistance, Environmental Review Unit
 1001 I Street, 16th Floor
 Sacramento, CA, 95814
Gabriel.Edwards@Waterboards.ca.gov

Mitigated Negative Declaration

Project Title: Jubilee MWC/Gordon Acres Consolidation Project
Date: February 25, 2019
Lead Agency: State Water Resources Control Board, Division of Financial Assistance
Contact Person: Gabriel Edwards

Project Description

The Gordon Acres Water Company, Inc. (GAWC) supplies potable water service to its customers within its service area for residential use, obtaining all of its drinking water from wells that are owned and operated by the GAWC. The water system improvements aim to address deficiencies identified by the DEHS related to lack of storage, water outages due to well failure, distribution system leaks, and system demand exceeding capacity.

It is anticipated that construction of the proposed improvements to the GAWC's potable water system will be funded by the Division of Financial Assistance of the State Water Resources Control Board. Agreements for the funding of construction phase activities have not been developed.

GAWC is proposing the following improvements to their potable water system under the title Jubilee MWC/Gordon Acres Consolidation Project (Project):

- Construction of new distribution system for existing GAWC customers, consisting of approximately 13,800 linear feet of new 6" and 8" distribution pipelines and appurtenances (valves; fire hydrants; sampling stations; and service lines, meters, and meter boxes to existing customers) (Alternative P1)
- The rehabilitation of the Dido Well (Alternative WS1)
- The destruction of the Houston Well (Alternative WS3)
 - After the well destruction, the property (Assessor's Parcel Number (APN): 044904307) may be for sale
- The consolidation of GAWC and JMWC (Alternative C1), which will include:
 - Installation of transmission pipeline from existing JMWC wells to its existing storage tanks
 - Installation of transmission pipeline from JMWC's existing pump station to the new storage tank site
 - Construction of new storage tank site, south of JMWC's existing tank site, with two new 70,000-gallon tanks, with future third tank. Proposed tanks heights are approximately 27 feet above existing grade. Tanks will be equipped with a small tank-mounted solar panel to provide power to on-site instruments and signaling to other water company sites. Tanks will have tank-mounted communication poles extending to no more than 3 feet above top of proposed tanks.

- Installation of new distribution pipeline from new storage tank site to the existing JMWC distribution system
- Installation of distribution pipeline from JMWC's existing distribution system to the GAWC service area
- Removal of JMWC's existing pump station
- Construction of pump station at JMWC's existing tank/office site
- Installation of four pressure reducing stations
- Destruction of JMWC's Well No. 2
- Signal conduit between Wells Nos. 3 and 4 and existing JMWC tank and office site
- Signal conduit between JMWC's office site and proposed tank site
- Improving well heads, mechanical piping and installation at JMWC's Well Nos 3 and 4, including communication pole no higher than 8 feet above grade.
- Minor improvements to existing JMWC tanks, including pipeline inlet and outlet reconfiguration, installation of level monitoring instruments, and attaching communication poles to the existing tanks to heights no more than 3 feet above existing tank height.
- Replacement of JMWC's existing Well No. 4 with a new well at the same site with depth and production approximating Well No. 4.
- Destruction of JMWC's Well No. 4

The improvements will allow the customers of GAWC to achieve compliance with drinking water standards for storage capacity and nitrate levels; increase system pressure and flow capacity, system reliability, and fire protection. For JMWC, the Project would increase system pressure and flow capacity for the southern pressure zone; increase system reliability; and increase financial stability.

Declaration

The State Water Resources Control Board has determined that the above Project would have no significant impact on the environment and is therefore exempt from the requirement of an environmental impact report. The determination is based on the attached Initial Study and the following findings:

1. The Project will not degrade environmental quality, substantially reduce habitat, cause a wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of special-status species, or eliminate important examples of California history or prehistory.
2. The Project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
3. The Project will not have impacts that are individually limited but cumulatively considerable.
4. The Project will not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

5. No substantial evidence exists that the Project will have a negative or adverse effect on the environment.
6. The Project incorporates all applicable mitigation measures or environmental commitments identified in the Initial Study (attached).
7. This Mitigated Negative Declaration reflects the independent judgment of the lead agency.

The following environmental commitments (mitigation measures) would be implemented as part of the proposed Project. Implementation of these measures would reduce any potential impacts to a less-than-significant level.

Mitigation Measure BR-1:

If vegetation removal or ground disturbance activities occur during the nesting season (January 1st to August 31st), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than two weeks prior to the initiation of construction. If construction activities are delayed or suspended for more than two weeks after the preconstruction survey, the site shall be resurveyed.

If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged, as determined through additional monitoring by a qualified biologist. Further, to prevent nest abandonment and mortality of chicks and eggs, no construction activities shall occur within 300 feet of an active nest unless a smaller buffer zone is authorized by a qualified biologist in consultation with the CDFW and the USFWS (the size of the construction buffer zone may vary depending on the species of nesting birds present). A qualified biologist shall delineate the buffer zone with construction tape or pin flags that shall remain in place until the young have fledged, as determined through additional monitoring by a qualified biologist.

The qualified biologist shall monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. If any active nests associated with migratory bird species or raptors are encountered during Project construction, construction activities within the 300-foot zone will be delayed until nesting activities have ceased as determined by a focused survey to be performed by the qualified biologist. Guidance from CDFW shall be requested if the nestlings within an active nest appear disturbed. The qualified biologist shall have the authority to stop any work determined to be adversely affecting the nesting activity. The qualified biologist shall report any "take" of active nests to CDFW.

Mitigation Measure BR-2:

Pre-construction surveys for desert tortoise shall be conducted by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas within the potential

footprint of disturbance for the Project, as well as a reasonable buffer around these areas. Should desert tortoise be encountered, CDFW and USFWS shall be contacted to discuss additional mitigation measures which may be required.

Mitigation Measure BR-3:

- Clearing of the Project area including blading of new access or work areas shall be minimized to the extent possible. Disturbance to shrubs shall be avoided if possible. If shrubs cannot be avoided during equipment operation or vehicle use, wherever possible they should be crushed rather than excavated or bladed and removed.
- Project features that might trap or entangle desert tortoises, such as open trenches, pits, open pipes, etc shall be covered at the end of each work day or modified to prevent entrapment through the installation of escape ramps or sloped at the ends at a 3:1 ratio.
- After completion of the Project, trenches, pits, and other features in which tortoises could be entrapped or entangled, shall be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoises.
- Unleashed dogs shall be prohibited in Project areas.
- Temporary fencing, such as chicken wire, snow fencing, chain link, and other suitable materials shall be used in designated areas to reduce encounters with tortoises.
- In potential desert tortoise habitat project-related vehicles shall not exceed 15 miles per hour on unpaved roads.

Mitigation Measure BR-4:

Pre-construction surveys for Parish's daisy shall be conducted concurrent with pre-construction surveys for the desert tortoise (BR-2) by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas of the Project, as well as a reasonable buffer around these areas even if these areas are not within the potential footprint of the desert tortoise (BR-2). Should Parish's daisy be encountered, proposed facilities will be examined for reasonable rerouting or relocation. If facilities cannot reasonably be rerouted or relocated, CDFW and USFWS shall be contacted to discuss possible species relocation and additional mitigation measures which may be required.

Mitigation Measure TCR-1:

In the event that Native American cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior (SOI) Professional Qualification Standards in archaeology shall be hired to assess the find. Work on the other portions of the Project outside of the buffered area may continue during this

assessment period. Additionally, San Manuel Band of Mission Indians and the State Water Board will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input. The archaeologist shall complete an isolate record for the find and submit this document to the applicant and State Water Board for dissemination to the San Manuel Band of Mission Indians.

If significant Native American historical resources are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to the State Water Board and the San Manuel Band of Mission Indians for review and comment.

a) 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).

b) The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the Project.

Public Review

Written comments on the draft Initial Study and Proposed Mitigated Negative Declaration should be submitted to the following address no later than 5:00 p.m. on March 26, 2019.

Gabriel Edwards
State Water Resources Control Board
Division of Financial Assistance, Environmental Review Unit
1001 I Street, 16th Floor
Sacramento, CA, 95814
Gabriel.Edwards@Waterboards.ca.gov

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APPENDIX 2. BURROWING OWL FOCUSED SURVEY REPORT (RCA 2018c)
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APPENDIX 4. ARCHAEOLOGICAL RESOURCE INVESTIGATION (APPLIED EARTH WORKS 2018a,b)

1 Introduction

The State Water Resources Control Board (State Water Board) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of construction and operation of the proposed Jubilee MWC/Gordon Acres Consolidation Project (Project). Chapter 2 describes the Project and its location in depth. This document was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines (14 California Code of Regulations [CCR] § 15000 et seq.).

1.1 Intent and Scope of this Document

This IS/MND has been prepared in accordance with CEQA, under which the Project is evaluated at a project level (CEQA Guidelines § 15378). The State Water Board, as the Lead Agency under CEQA, will consider the project's potential environmental impacts when considering whether to approve the project. This IS/MND is an informational document to be used in the planning and decision-making process for the project and does not recommend approval or denial of the project.

The site plans for the Project included in this IS/MND are conceptual. The State Water Board anticipates that the final design for the Project would include some modifications to these conceptual plans, and the environmental analysis has been developed with conservative assumptions to accommodate some level of modification.

This IS/MND describes the Project; its environmental setting, including existing conditions and regulatory setting, as necessary; and the potential environmental impacts of the Project on or with regard to the following topics:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality/Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

Public Involvement Process

Public disclosure and dialogue are priorities under CEQA. CEQA Guidelines § 15073 and § 15105(b) require that the lead agency designate a period during the IS/MND process when the public and other agencies can provide comments on the potential impacts of the Project. Accordingly, the State Water Board is now circulating this document for a 30-day public and agency review period.

All comments received before 5:00 p.m. on the date identified for closure of the public comment period in the Notice of Intent will be considered by the State Water Board during its deliberations on whether to approve the Project.

To provide input on this Project, please send comments to the following contact:

Gabriel Edwards
State Water Resources Control Board
Division of Financial Assistance, Environmental Review Unit
1001 I Street, 16th Floor
Sacramento, CA, 95814
Gabriel.Edwards@Waterboards.ca.gov

1.2 Organization of this Document

This IS/MND contains the following components:

Chapter 1, Introduction, provides a brief description of the intent and scope of this IS/MND, the public involvement process under CEQA, and the organization of and terminology used in this IS/MND.

Chapter 2, Project Description, describes the Project, including its purpose and goals, the Project site where the Project would be constructed, the construction approach and activities, operation-related activities, and related permits and approvals.

Chapter 3, Environmental Checklist, presents the environmental checklist used to assess the Project's potential environmental effects, which is based on the model provided in Appendix G of the CEQA Guidelines. This chapter also includes a brief environmental setting description for each resource topic and identifies the Project's anticipated environmental impacts, as well as any mitigation measures that would be required to reduce potentially significant effects to a less-than-significant level.

Chapter 4, References, provides a bibliography of printed references, websites, and personal communications used in preparing this IS/MND.

1.3 Impact Terminology

This IS/MND uses the following terminology to describe the environmental effects of the Project:

- A finding of no impact is made when the analysis concludes that the Project would not affect the particular environmental resource or issue.
- An effect is considered less than significant if the analysis concludes that no substantial adverse change in the environment would result and that no mitigation is needed.
- An effect is considered less than significant with mitigation if the analysis concludes that no substantial adverse change in the environment would result with the implementation of the mitigation measures described.
- An effect is considered significant or potentially significant if the analysis concludes that a substantial effect on the environment could result.
- Mitigation refers to specific measures or activities that would be adopted by the lead agency to avoid, minimize, rectify, reduce, eliminate, or compensate for an otherwise significant impact.
- A cumulative impact refers to one that can result when a change in the environment would result from the incremental impacts of a project along with other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts might result from impacts that are individually minor but collectively significant. The cumulative impact analysis in this IS/MND focuses on whether the Project's incremental contribution to significant cumulative impacts caused by the Project in combination with past, present, or probable future projects is cumulatively considerable.
- Because the term "significant" has a specific usage in evaluating the effects under CEQA, it is used to describe only the significance of impacts and is not used in other contexts within this document. Synonyms such as "substantial" are used when not discussing the significance of an environmental impact.

2 Project Description

In order to provide better service to its customers, the Gordon Acres Water Company (GAWC) and the Jubilee Mutual Water Company (JMWC) propose to consolidate production, storage and distribution systems and operate as a single entity. Given this, significant improvement to the merged system can also be achieved. These improvements will address several issues.

2.1 Background and Need for the Project

The GAWC supplies potable water service to residents within its service area for domestic use. The potential improvements to the potable water system include new storage facilities, a new booster pump station, and upgrades to the existing pipeline and communication systems.

Since 2012, the GAWC has received Sanitary Survey reports from the County of San Bernardino Department of Public Health's Division of Environmental Health Services (DEHS) citing lack of storage, water outages due to well failure, distribution system leaks, and system demand exceeding capacity. The proposed action upgrades the water system to address deficiencies identified by DEHS and the Preliminary Engineering Report (PER).

It is anticipated that construction of the proposed improvements to GAWC's potable water system will be funded by the State Water Resources Control Board. Agreements for the funding of construction phase activities have not been developed.

GAWC has received a citation from DEHS. The citation is listed below and can be found in Appendix B of the Preliminary Engineering Report (NV5 2016).

- Citation for Noncompliance No. CC0000093 dated May 15, 2013 for exceedance of total coliform maximum contaminant level (MCL)

GAWC has recently received two Sanitary Survey reports, dated October 1, 2012 and September 20, 2013. The reports cite lack of storage, wellheads not in compliance, and several reports of water outages due to well failure, distribution system leaks, and system demand exceeding capacity. Both sanitary surveys are included in Appendix B of the Preliminary Engineering Report (NV5 2016).

As of February 2016, the Dido and Houston wells had a nitrate level of 9.3 ppm and 5.8 ppm, respectively. Both values exceeded the 50% of the maximum contaminant level. As a result, GAWC is now conducting quarterly samples for nitrate (County DEHS email on July 21, 2016; Title22, Division 4, Chapter 15, Article 4, Section 64432.1)

In addition, GAWC has incurred significant expenses to keep its water system operational. In 2012 and 2013, approximately \$20,000 were needed to repair numerous leaks. The Dido Well is structurally stable, but there is significant scaling as reported in the well video memorandum. The Houston Well has significant structural deficiencies, including a few sections of complete erosion of the well casing as reported in the well video memorandum.

2.2 Project Purpose and Objectives

The Project is being constructed to provide reliable water supply capable of continuously meeting the water demands of the new, consolidated service areas of GAWC and JMWC. The purpose of the Project is to consolidate the GAWC and JMWC systems and provide a single water supply network for the combined service area. In addition, improvements will be made to the JMWC's pumping and storage systems.

This effort will allow the GAWC to comply with drinking water standards for storage capacity and nitrate levels, increase system pressure and flow capacity, and system reliability. For JMWC, the Project would increase system pressure, storage, and flow capacity for the southern pressure zone, increase system reliability, and increase financial stability.

2.3 Project Location and Setting

GAWC is located within Lucerne Valley, California, a census-designated place located in western San Bernardino County (S11 T4N R1E), approximately 25 miles east of the City of Hesperia. The GAWC is approximately 6 miles east of the crossing of state routes 247 and 18, (SR-247, SR-18) and covers an area of approximately 160 acres. Refer to the Location Map (Figure 1) and to the Vicinity Map (Figure 2). The Project area is located within Sections 11, 14, 15, 21, 22 and 27 of T4N R1E.

2.4 Project Characteristics

The Preliminary Engineering Report (NV5 2016) recommended design alternative C which included the following construction items:

- Construction of new distribution system for existing GAWC customers, consisting of approximately 13,800 linear feet of new 6" and 8" distribution pipelines and appurtenances (valves; fire hydrants; sampling stations; and service lines, meters, and meter boxes to existing customers) (Alternative P1)
- The rehabilitation of the Dido Well (Alternative WS1)
- The destruction of the Houston Well (Alternative WS3)

- After the well destruction, the property (Assessor's Parcel Number (APN): 044904307) may be for sale
- The consolidation of GAWC and JMWC (Alternative C1), which will include:
 - Installation of transmission pipeline from existing JMWC wells to its existing storage tanks
 - Installation of transmission pipeline from JMWC's existing pump station to the new storage tank site
 - Construction of new storage tank site, south of JMWC's existing tank site, with two new 70,000-gallon tanks, with future third tank. Proposed tanks heights are approximately 27 feet above existing grade. Tanks will be equipped with a small tank-mounted solar panel to provide power to on-site instruments and signaling to other water company sites. Tanks will have tank-mounted communication poles extending to no more than 3 feet above top of proposed tanks.
 - Installation of new distribution pipeline from new storage tank site to the existing JMWC distribution system
 - Installation of distribution pipeline from JMWC's existing distribution system to the GAWC service area
 - Removal of JMWC's existing pump station
 - Construction of pump station at JMWC's existing tank/office site
 - Installation of four pressure reducing stations
 - Destruction of JMWC's Well No. 2
 - Signal conduit between Wells Nos. 3 and 4 and existing JMWC tank and office site
 - Signal conduit between JMWC's office site and proposed tank site
 - Improving well heads, mechanical piping and installation at JMWC's Well Nos 3 and 4, including communication pole no higher than 8 feet above grade.
 - Minor improvements to existing JMWC's tanks, including pipeline inlet and outlet reconfiguration, installation of level monitoring instruments, and attaching communication poles to the existing tanks to heights no more than 3 feet above existing tank height.
 - Replacement of JMWC's existing Well No. 4 with a new well at the same site with depth and production approximating Well No. 4.
 - Destruction of JMWC's Well No. 4

2.4.1 Project Facilities

JMWC is located 1.5 miles southwest of GAWC and approximately 200 feet higher in elevation than GAWC. JMWC's service area is approximately 1 square mile and serves 203 residential service connections (Figure 2). JMWC's existing wells have the capacity to produce a sufficient amount of water to meet the demands of GAWC's existing customers as well as JMWC's existing customers. However, JMWC's water system contains deficiencies that need to be

addressed, such as low and unreliable system pressure in its southern zone and a deteriorating pump station. For JMWC to provide service to GAWC's customers, improvements and additions to JMWC's water system would be necessary. Improvements to JMWC's storage and pump station facilities are detailed below (Figure 2).

JMWC's existing storage tanks and existing distribution pipeline would continue to serve JMWC's north pressure zone. The existing storage tanks will also supply water and pressurize GAWC's existing service area. JMWC's existing storage tanks would provide storage capacity to both JMWC's northern pressure zone customers and to GAWC's existing customers while satisfying California Drinking Water Standards, California Fire Code, and DBO requirements. A new pipeline would connect JMWC's northern pressure zone to the proposed distribution system of GAWC. Two alignment options for the pipeline connecting JMWC to GAWC's service area were considered in the PER (NV5, 2016). A connection would be made at the northern pressure zone's distribution system, and approximately 11,500 linear feet of 12-inch C-900 PVC distribution piping would be installed to connect to GAWC's proposed distribution system. A pressure reducing station would be required on the pipeline upstream of GAWC's existing service area. The existing tank site, proposed tank site, pump station, pressure reducing stations, and preliminary pipeline alignments are shown on Figure 2. Approximately 7,200 linear feet of 6-inch, C-900 PVC transmission piping would be installed to directly connect JMWC's existing wells (Nos. 3 and 4) to JMWC's existing storage tanks.

The mechanical equipment within JMWC's existing pump station was designed to pump water from the northern pressure zone distribution system to the southern pressure zone distribution system. The southern zone's pressure is maintained by a pneumatic tank at the pump station. There is no elevated storage tank that provides pressurized water to the southern pressure zone. The existing mechanical equipment at the pump station is deteriorating and is no longer fully reliable. The pump station would be replaced and would be used to pump water from the existing tanks to a proposed tank site with a higher elevation. Approximately 4,300 linear feet of 4-inch, C-900 PVC transmission piping would be installed to connect the pump station to the proposed tank site. The existing JMWC office and tank site (APN 0449-172-55) is the site for the relocation of the pump station.

Approximately 7,200 linear feet of 6-inch C-900 PVC transmission piping would be installed to directly connect JMWC's existing wells (Nos. 3 and 4) to JMWC's existing storage tanks. The proposed tank site is located approximately 0.35-miles west of Camp Rock Rd. and 0.2-miles south of Rosewood St. This site was considered because has sufficient minimum elevation to serve JMWC's southern pressure zone at a compliant operational pressure. The total additional volume would satisfy JMWC's southern pressure zones storage needs per California Drinking Water Standards and California Fire Code requirements. From the proposed tank site, approximately 4,000 linear feet of 12-inch C-900 PVC distribution piping would be installed to connect the new storage tanks to JMWC's existing distribution system. Two proposed pressure reducing stations would allow flow from JMWC's existing southern pressure zone to the northern pressure zone automatically if pressure falls below a set point in the northern

pressure zone. A third pressure reducing station is proposed along the proposed pipeline connecting JMWC and GAWC's facilities. A fourth pressure reducing station is proposed near the site of the existing pump station.

GAWC's assets, operations, maintenance, and administrative tasks would be transferred to JMWC. Existing GAWC shareholders would become shareholders of and purchase water from JMWC. GAWC would be dissolved and would relinquish its water supply permit. Both GAWC and JMWC have passed resolutions to advance consolidation. See Appendix E of the Preliminary Engineering Report (NV5 2016).

2.4.2 Construction

Site Preparation and Earthwork: Site preparation would include limited clearing and grubbing, grading, import and placement of fill, and compaction. Clearing and grubbing would be conducted with standard excavators, bulldozers, and hand labor. All demolished material and debris from the site preparation or trenching phases would be disposed of off-site at an appropriate location selected by the construction contractor. For the purposes of this analysis, the disposal site is assumed to be located within 1 hour of travel time from the Project site.

To the extent feasible, excavated soil may be reused onsite. Fill would be delivered to the building sites by conventional haul trucks (approximately 10 cubic yards [cy] per load). Fill material would be placed with an excavator and compacted with a compactor/roller. It is anticipated that approximately 1 to 2 equipment delivery trips would occur for each Project site. In addition, a total of approximately 63 cy of fill would be imported for the proposed pipeline construction activities, and approximately 0.2 cy of imported backfill for the Houston well destruction.

Construction activities will require local disruption of normal traffic and environmental conditions for a short period of time on some roads. Pipelines would be installed using jack and bore (trenchless) methods beneath larger roads in the area (Camp Rock Road and SR-247), and would thus not impact traffic on these roads. The geotechnical report for the Project did not identify subsurface conditions that would require special construction attention, e.g. large boulders. The report also determined seismic parameters that may affect the design and construction of the storage tanks (NV5 2018).

Pipelines: The Project's water supply pipelines and underground signal conduit would be installed beneath existing streets, and within the Project sites. The general process for pipeline installation involves digging a trench, installing the pipe, and backfilling the trench ("cut-and-cover"). In existing streets, the cut-and-cover method involves removing the asphalt, roadway base, and underlying soil; all materials are replaced at the completion of the program. The depth and width of the trenches would vary depending upon the size of the pipe and in consideration of other existing utility lines; however, it is anticipated that the minimum depth for the water pipelines would be 3.5 feet and the maximum depth would be 4 feet.

Construction crews may close one lane of traffic temporarily during pipe installation. The approximate width of the construction area would be 20 feet and within the road right-of-way boundaries. During construction, trenches would be temporarily closed at the end of each workday, either by covering with steel plates or backfill material.

Soil excavated from the trench would be stockpiled alongside the trench or in a staging area within the temporary construction easement for later reuse in backfilling the trench or for fill at other on-site locations, if appropriate. Native soil would be reused for backfill to the greatest extent possible; however, native soil may not have the properties necessary for compaction and stability. If not reusable, the soil would be hauled off-site for disposal at an appropriate disposal site. Once pipelines are installed, trenches would then be backfilled and compacted. Jack and bore methods will be used where the new pipeline will cross Camp Rock Road and SR-247.

Staging Areas: Staging areas would be needed to store pipe, construction equipment, and other construction-related material. Staging areas are identified within the County right-of-way adjacent to proposed pipeline alignments, and also at specific locations (APN 0449-053-10 (GAWC property), APN 0449-104-56 (JMWC property), APN 0449-12-55 (JMWC tank and office site), and APN 0449-631-57 (proposed tank site)).

Site Restoration: The final step in the installation process is to restore the ground surface. Site restoration would generally involve repaving, or installing erosion controls, as necessary. Site restoration activities would include repairing or replacing any damaged features to pre-construction condition. Previously paved areas in the street right-of-way would be restored to match existing conditions and comply with San Bernardino County specifications.

The alignment for the proposed distribution system requires a jack and bore crossing underneath Old Woman Springs Road (SR-247), this will require coordination and an encroachment permit from Caltrans. JMWC has received a Caltrans encroachment permit number (08-18-6-UJ-0024), but has not issued the permit at the time of publishing this document. Adjacent streets under which the pipeline would be installed utilizing jack and bore methods include Camp Rock Road and East End Road, both within county ROW.

There are several school bus stops in some Project areas. Construction mitigation measures would have to be implemented to not interfere with the bus service.

2.4.3 Project Operations

Construction Schedule

A schedule for implementing the Project is below. The date of execution of the construction phase funding agreement with the State Water Resources Control Board's Division of Financial Assistance (DFA) is approximate.

June 2019	Execute construction funding agreement with SWRCB/DFA
July 2019	<p>Prepare stormwater pollution prevention plan (SWPPP)</p> <p>Submit LSA Notification to CA Department of Fish and Wildlife</p> <p>Prepare and submit drainage study for Project</p> <p>Submit application for waiver for discharge of potable water to land from small drinking water systems (SWRCB General Order No. 2003-0003-DWQ)</p> <p>Advance design documents (drawings and specifications), including electrical engineering, to 95%</p> <p>Perform additional geotechnical investigations along pipeline alignments and infiltration testing to support drainage study</p> <p>Resubmit encroachment permit application documents to Caltrans for SR-247 crossing</p> <p>Review Project financing plan with DFA</p>
August 2019	<p>Receive comments on agency review of 95% submittal</p> <p>Submit conditional use permit application to San Bernardino County Land Use Services Department, Planning Division</p> <p>Submit Engineer's Report to Department of Business Oversight (DBO) for consolidation of JMWC and GAWC</p> <p>Submit building permit application to County Land Use Services Department, Building and Safety Division</p> <p>Submit 100% design documents (drawings, technical specifications, and cost opinions) for pipeline and well improvements.</p> <p>Receive design approval from DDW</p> <p>Receive Caltrans encroachment permit for SR-247 crossing</p> <p>Perform pre-construction unexploded ordinance search and clearance</p>
September 2019	Solicit bids for construction of pipeline improvements within GAWC and between JMWC and GAWC.
October 2019	Award construction contracts for pipeline improvements
November 2019	Commence construction of pipeline improvements
December 2019	Receive approvals from DBO and California Secretary of State's office for mutual water company/corporate consolidation
March 2020	JMWC submits initial well destruction permit application to County DEHS

April 2020	Receive comments on initial well destruction permit application from County DEHS
May 2020	Complete construction of pipeline improvements Receive conditional use permit from San Bernardino County Land Use Services Department, Planning Division Submit 100% design documents for storage tank and pump station improvements Receive building permit from San Bernardino County Land Use Services Department, Building and Safety Division Solicit bids for well rehabilitation (Dido Well) and Houston Well destruction
June 2020	Solicit bids for construction of proposed tank and pump station improvements Solicit bids for pipeline construction between proposed tank and pump station sites
July 2020	Award construction contract for well rehabilitation and destruction
August 2020	Award construction contracts for pump station and storage tank improvements Award construction contract for pipeline construction between proposed tank and pump station sites
October 2020	Commence construction of tank, pipeline, and pump station improvements Complete consolidation's legal and administrative efforts; JMWC and GAWC merge GAWC relinquishes water supply permit to County DEHS
February 2021	Well rehabilitation/destruction efforts complete Pump station and storage tank construction complete Pipeline construction between pump station and proposed storage tank site complete System startup Project construction complete
March 2021	DDW reissues/revises Water Supply Permit to JMWC

Construction activities would generally occur Monday through Friday between 7:00 a.m. and 6:00 p.m. After-hours work and work on Saturdays, Sundays, and state holidays may proceed on a case by case basis as determined by JMWC.

Construction schedules will be limited to minimize traffic effects in major areas of concern, such as schools or churches. There are several school bus stops located along the proposed route. In school bus stop areas, construction hours will be limited to avoid effects to student transportation. Coordination with Lucerne Valley Unified School District's (LVUSD's) transportation department will take place prior to construction to confirm transportation schedules and holiday breaks.

The Project will be constructed with consideration of keeping water outages minimal. Outages, if required, will take place between the hours of 9:00 a.m. and 3:00 p.m. Best management practices (BMPs) that are proposed for the Project are described below.

Best Management Practices

Project construction would include a range of environmental commitments, otherwise known as BMPs, to avoid adverse effects on people and the environment. BMPs are developed to address anticipated effects from various construction activities and would be implemented pre-construction, during construction, and post-construction, as specified in Table 2.

Table 2. Best Management Practices to be Implemented for the Project

Number	Title	BMP Description
BMP-1	Best Management Practices for Construction Air Quality	The contractor will use construction equipment that minimizes air emissions to the extent feasible such that overall fleet emissions are equal to or less than emissions compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
BMP-2	Best Management Practices for Construction Emissions, Including Fugitive Dust Emissions	The implementation of construction BMPs to limit construction emissions, particularly fugitive dust emissions, includes the following actions: <ul style="list-style-type: none">• All exposed areas of bare soil (e.g., parking areas, staging areas, soil piles) should be watered twice per day to minimize fugitive dust emissions.• All haul trucks transporting soil, sand, or other loose material off-site should be covered or

Number	Title	BMP Description
		<p>maintain at least two feet of free board space. Any haul trucks traveling along freeways or major roadways should be covered.</p> <ul style="list-style-type: none"> • All visible mud or dirt track-out onto adjacent public roads should be removed using wet power-vacuum street sweepers at least once per day. The use of dry power sweeping should be prohibited. • All vehicle speeds on unpaved roads should be limited to 15 miles per hour (mph). • Idling times should be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13 CCR § 2485). Clear signage regarding this requirement should be provided for construction workers at all access points. • All construction equipment should be maintained and properly tuned in accordance with manufacturer's specifications. All equipment should be checked by a certified visible emissions evaluator and determined to be running in proper condition before it is operated. • The project would implement these measures as required.
BMP-3	Best Management Practices for Sediment Control	<p>JMWC and/or its contractor(s) will implement site specific BMPs to control sediments during construction activities, which may include but not be limited to:</p> <p>Install, implement, and maintain BMPs consistent with the California Storm Water Quality Association Best Management Practice Handbook (California Storm Water Quality Association [CASQA] 2015) or equivalent to minimize the discharge of pollutants, consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit 2009-0009-DWQ, as amended by 2010-0014-DWQ & 2012-0006-DWQ applicable to the State of California.</p> <ul style="list-style-type: none"> • Implement practices to reduce erosion of exposed soil, including stabilization of soil stockpiles,

Number	Title	BMP Description
		<p>watering for dust control, establishment of perimeter silt fences, and/or placement of fiber rolls.</p> <ul style="list-style-type: none"> • Minimize soil disturbance area. • Implement other practices to maintain water quality, including use of silt fences, stabilized construction entrances, and storm-drain inlet protection. Where feasible, limit construction to dry periods. Revegetate or repave disturbed areas. • BMPs will be regularly monitored for effectiveness using appropriate methods (visual observation, sampling) at appropriate intervals (e.g., daily or weekly) and corrected immediately if determined to not be effective.
BMP-4	Best Management Practices for Hazardous Materials	<p>JMWC and/or its contractor(s) will implement site-specific hazardous materials BMPs during construction activities, which may include but not be limited to:</p> <ul style="list-style-type: none"> • Develop (before initiation of construction activities) and implement (during construction and operational activities) a spill prevention and emergency response plan to handle potential spills of fuel or other pollutants. • Install, implement, and maintain BMPs consistent with the California Storm Water Quality Association Best Management Practice Handbook (California Storm Water Quality Association [CASQA] 2015) or equivalent to minimize the discharge of pollutants, consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit 2009-0009-DWQ, as amended by 2010-0014-DWQ & 2012-0006-DWQ applicable to the State of California. • Implement practices to minimize the contact of construction materials, equipment, and maintenance supplies with stormwater. • Limit fueling and other activities involving hazardous materials to designated areas only; provide drip pans under equipment and conduct daily checks of vehicle condition.

Number	Title	BMP Description
		<ul style="list-style-type: none"> Require the proper disposal of trash and any other construction-related waste. Ensure that any dewatered groundwater is not polluted prior to discharging into the local stormwater infrastructure or use; if dewatered groundwater becomes polluted, dispose of it off-site at an appropriate facility.

2.5 Permits and Approvals

Permit requirements and approvals will include:

Table 3. Applicable Permits and Regulatory Requirements

Regulatory Agency	Law/Regulation	Purpose	Permit/ Authorization Type
County of San Bernardino Division of Environmental Health Services	Environmental Management Wells Program, County Municipal Code	Houston Well and JMWC Well No. 2 destruction & relinquish GAWC water supply permit	Well Construction Permits; Relinquish Water Supply Permit by GAWC
County of San Bernardino Public Works Department	County Policies and Requirements	Establish compliance with County right-of-way policies	Encroachment Permit
San Bernardino County	County Policies and Requirements	Establish compliance with County Noise Ordinance	Emergency Construction Work Approval
County of San Bernardino Land Use Services Department	County Policies and Requirements	Division of Planning requirement	Conditional Use Permit for proposed tank site and pump station
County of San Bernardino Land Use Services Department	County Policies and Requirements	Division of Building & Safety requirement	New water storage tanks and relocated pump station
California State Water Resources Control Board, Division of Drinking Water	Safe Drinking Water Act, California Health and Safety Code (Division 104, Part 12, Chapter 4, Article 7, Section 116525)	Compliance with public health water quality requirements for operation of public water system (well)	New water supply permit for JMWC
Caltrans		Crossing of SR-247	Encroachment
Army Corps of Engineers	Federal Clean Water Act	Waters of the US jurisdictional determination request near proposed tanks	Jurisdictional determination
California Department of Fish & Wildlife	California Fish and Game Code Section 1600 et seq.	LSA Notification	Streambed Alteration Agreement, if required
Mojave Water Agency		Water Rights transfer from GAWC to JMWC	

Regulatory Agency	Law/Regulation	Purpose	Permit/ Authorization Type
County of San Bernardino, Fire Department, CA Department of Toxic Substances Control, Army Corps of Engineers - FUDS	CERCLA, National Oil and Hazardous Substances Pollution Contingency Plan, DoD Directive (DoDD) 5134.01	Formerly utilized defense site and unexploded ordinance review	Coordination and reporting
CA Department of Business Oversight		Expansion of JMWC Service Area	
CA Secretary of State		Dissolution of GAWC	Corporation Oversight

3 Environmental Checklist

- | | | |
|-----|--|--|
| 1. | Project Title | Jubilee MWC/Gordon Acres Consolidation Project |
| 2. | Lead Agency Name and Address | State Water Resources Control Board
Division of Financial Assistance
1001 I Street, 16th Floor
Sacramento, California 95814 |
| 3. | Contact Person, Phone Number and Email | Gabriel Edwards (916) 449-5990
Gabriel.Edwards@waterboards.ca.gov |
| 4. | Project Location and APN | Lucerne Valley, CA in western San Bernardino County |
| 5. | Property Owner(s) | Various |
| 6. | General Plan Designation | Agricultural (AG), Rural Living (RL) or Single Residential (RS) |
| 7. | Zoning | Lucerne Valley/Agriculture (LV/AG), Lucerne Valley/Single Residential -1 Acre Minimum (LV/RS-1), Lucerne Valley/Rural Living-5 Acre Minimum (LV/RL-5) or Lucerne Valley/Rural Living-10 Acre Minimum (LV/RL-10) |
| 8. | Description of Project | See Chapter 2, <i>Project Description</i> |
| 9. | Surrounding Land Uses and Setting | The main land uses are residential, small commercial, and small agricultural. The 30-megawatt (MW) Lone Valley Solar photovoltaic (PV) facility occupies approximately 130 acres of a 152-acre site located at the southern terminus of the Project, directly across Joshua Avenue. |
| 10. | Other Public Agencies whose Approval or Input May Be Needed | <ul style="list-style-type: none">• California Regional Water Quality Control Board #7 (Colorado River Region)• San Bernardino County Department of Public Health, Division of Environmental Health (DEHS)• San Bernardino County Land Use Services Department• State Water Resources Control Board |

- 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?** Yes.

This chapter of the Initial Study/Mitigated Negative Declaration (IS/MND) assesses the environmental effects of the State Water Resources Control Board's (State Water Board) Jubilee MWC/Gordon Acres Consolidation Project (Project) based on the environmental checklist provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Project are described in the individual subsections below. Each section (3.1 through 3.18) provides a brief overview of regulations and regulatory agencies that address the resource and describes the existing environmental conditions for that resource to help the reader understand the conditions that could be affected by the Project. Relevant local laws, regulations, and policies are described in each section. In addition, each section includes a discussion of the rationale used to determine the significance level of the Project's environmental effect for each checklist question. For environmental effects that have the potential to be significant, mitigation measures are identified that would reduce the severity of the effect to a less-than-significant level.

Environmental Factors Potentially Affected

The environmental factors below could potentially be affected by the Project, as indicated by the checklist on the following pages.

- Aesthetics
- Agriculture and Forest Resources
- Air Quality/Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

- “No Impact” means that no impact to the resource would occur as a result of implementing the Project.
- “Less than Significant Effect” means that implementation of the Project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.
- “Less Than Significant With Mitigation Incorporated” means that the incorporation of one or more mitigation measures is necessary to reduce the effect from potentially significant to less than significant.
- “Potentially Significant Impact” means that there is either substantial evidence that a Project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

3.1 Aesthetics

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

3.1.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to aesthetics in relation to the Project.

State Laws, Regulations, and Policies

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (California Department of Transportation [Caltrans] 2015). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies to protect the aesthetic values of the County, including the protection of its scenic corridors and highways, and recommends incorporating Project design elements that improve visual aesthetics.

3.1.2 Environmental Setting

The Project area is in a semi-rural community in western San Bernardino County. Residential and commercial development in the community of Lucerne Valley dominates the visual setting of the Project. Lands surrounding the developed areas are broad desert slopes and playas that offer a scenic vista around the community. Distant views of the San Bernardino Mountains provide a background. The visual quality of most of the Project area is somewhat degraded by the existing developments, such as housing developments and roads.

Visual Character and Quality of the Site

Residential neighborhoods, open desert and small agricultural areas adjoin the Project corridor. The 30-megawatt (MW) Lone Valley Solar photovoltaic (PV) facility occupies approximately 130 acres of a 152-acre site located at the southern terminus of the Project, directly across Joshua Avenue and dominates the viewscape in this part of the Project.

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments. Light that falls beyond the intended area of illumination is referred to as “light trespass.” The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine onto neighboring properties. Spillover light can adversely affect light-sensitive uses, such as residences, at nighttime. Both light intensity and fixtures can affect the amount of any light spillover. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older, upward-facing light fixtures.

Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

The most notable lighting in or near the Project sites is from the surrounding residential and commercial buildings, specifically the solar facility. These structures act as continual light sources, including throughout the nighttime hours. In addition, parking lot lighting and headlights from workers illuminate the surrounding roadways. During the day, the most

notable source of glare is from sunlight reflecting off of the rooftops and sides of the surrounding buildings and from the solar panels.

3.1.3 Discussion of Impacts

- a) *No Impact.* The Project would not permanently alter views of scenic vistas around Lucerne Valley or surroundings. The pipelines would be installed underground and would not be visible after construction. The proposed pump station will be installed adjacent to existing water storage tanks and the JMWC office, and thus will generally not be visible. The pump station building will have a height less than the adjacent storage tanks. The parcel on which the proposed storage tanks will be built is located adjacent to an existing solar farm (Lone Valley Solar). The storage tanks will have an exterior color to generally match the surrounding desert scape. The tank's roof will have low reflective roof coating to reduce glare. Proposed pressure reducing stations will be constructed below grade within public rights of way.
- b) *No Impact.* The Project would not permanently damage scenic resources. There are no state scenic highways or resources within the Project area.
- c) *No Impact.* The Project would not have an effect on the visual character of the Project area. Construction activities would result in temporary visual effects due to the presence of equipment and staged materials in the Project area and vegetation removal and ground disturbance activities, which would be visible from some residences and commercial areas and for travelers along nearby roads. These activities would take place in a developed area and are similar to other construction activities that periodically occur. No long-term visual changes due to pipeline installation would take place because the pipeline would be underground and the surface would be restored to its current, or better, condition. There are no residences within the Project area that would be affected by the proposed storage tanks and pump station. The proposed pump station will be located adjacent to the JMWC office building and to the existing tanks, and will be much smaller than the existing tanks, thereby not creating a visual impact.
- d) *No Impact.* The Project would not create a substantial source of light or glare. It would involve installation of an underground pipeline, relocated pump station, and water storage tanks. No nighttime construction would take place. There are no planned exterior lights on the proposed tanks. The pump station would have a low wattage exterior light above its door, the glare from which would be mostly impeded and blocked by the adjacent storage tanks and office building.

3.2 Agriculture and Forest Resources

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

3.2.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to Agriculture and Forest Resources in relation to the Project.

State Laws, Regulations, and Policies

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a non-mandated State program for counties and cities to preserve agricultural land, and discourage the premature conversion of agricultural land to urban uses.

The California Department of Conservation (CDC) provides Williamson Act maps and maps of important farmland for counties in California, including San Bernardino County. Each map indicates areas of urban/built-up land in addition to illustrating the locations of various agricultural-related (Williamson Act or farmland designation) categories (CDC 2010, 2014).

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies to protect the agricultural use of the County, including the zoning of land for such purposes.

3.2.2 Environmental Setting

The Project area does not contain any lands under a Williamson Act contract (California Department of Conservation 2013). There are designated prime farmlands along Camp Rock Road directly east of the Project, east of Dallas Road and North of Pearl Road; however, none of these areas will be significantly disturbed by the Project and no impact or loss of use will occur. All excavation will be made in the public right-of way (ROW) or on land not categorized as prime farmland, farmland of statewide importance or unique farmland.

3.2.3 Discussion of Impacts

- a) *No Impact.* The Project area is located on public ROWs and public/semi-public facilities land. The only farmlands near the Project area are alfalfa fields southeast of intersection of Camp Rock Road and SR-247 (owned by Big Bear Area Regional Wastewater Agency, BBARWA) and east of GAWC's service area. The cultivated portion of BBARWA's property will not be affected. The alfalfa field east of GAWC's service area is outside of the Project area. Therefore, it would not convert farmland.
- b) *No Impact.* The Project area is located on public ROWs and public/semi-public facilities land, therefore, it would not conflict with existing zoning for agricultural use, or a Williamson Act contract.
- c) *No Impact.* The Project area is located on GAWC-owned and JMWC-owned properties, within County ROW, and within Caltrans ROW. No forest land is located within the Project area.
- d) *No Impact.* The Project would not affect forest land or uses and would not convert forest land.
- e) *No Impact.* The Project would not cause other changes to the environment that could convert farmland or forest lands to non-farmland or non-forest uses. It is not considered a growth-inducing Project because the new pipeline has been designed to meet pressure, fire flow, and redundancy requirements and would not accommodate an unplanned increase in growth in Lucerne Valley.

3.3 Air Quality/Greenhouse Gases (GHGs)

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
g) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

3.3.1 Regulatory Setting

Federal and State Laws, Regulations, and Policies

The Clean Air Act (CAA) is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 10 micrometers or less (PM₁₀), particulate matter of aerodynamic radius of 2.5 micrometers or less (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The Project is located in the desert portion of San Bernardino County (Figure 1). The Mojave Desert Air Quality Management District (MDAQMD) manages air quality and the General Conformity Rule within this area.

Section 176(c) of the CAA provides that federal agencies cannot engage, support, or provide financial assistance for licensing, permitting, or approving any project unless the project conforms to the applicable State Implementation Plans (SIP). Under CAA Section 176(c)

requirements, USEPA promulgated 40 Code of Federal Regulations (CFR) Part 51, Subpart W, and 40 CFR Part 93, Subpart B, "Determining Conformity of General Federal Actions to State or Federal Implementation Plans" (see 58 Federal Register (FR) 63214 [November 30, 1993], as amended; 75 FR 17272 [April 5, 2010] and 75 FR 17274.) These regulations, commonly referred to as the General Conformity Rule, apply to all federal actions except for those federal actions that are specifically excluded from review (e.g., stationary-source emissions) or are related to transportation plans, programs, and projects under Title 23 U.S. Code (USC) or the Federal Transit Act, which are subject to Transportation Conformity.

In states that have an approved SIP revision adopting General Conformity regulations, 40 CFR Part 51, Subpart W, applies; in states that do not have an approved SIP revision adopting General Conformity regulations, 40 CFR Part 93, Subpart B, applies. The Project sites are located in an area of California with approved SIPs adopting General Conformity regulations.

The General Conformity Rule is used to determine if federal actions meet the requirements of the CAA and the applicable SIP by ensuring that air emissions related to the action do not:

- Cause or contribute to new violations of a NAAQS;
- Increase the frequency or severity of any existing violation of a NAAQS; or
- Delay timely attainment of a NAAQS or interim emission reduction.

A conformity determination under the General Conformity Rule is required if the federal agency determines that the action would occur in a nonattainment or maintenance area; no specific exemptions apply to the action; the action is not included in the federal agency's "presumed to conform" list; emissions from the proposed action are not within the approved emissions budget for an applicable facility; and the total direct and indirect emissions of a pollutant (or its precursors) are at or above the de minimis levels established in the General Conformity Rule (75 FR 17274). Applicable de minimis levels are shown in Table 4.

Six methods are available for demonstrating conformity:

- Document that the emissions from the action are identified and accounted for in the SIP;
- Obtain a statement from the applicable state or local air quality agency indicating that the emissions from the action, along with all other emissions in the area, would not exceed the budget for those emissions in the SIP;
- Obtain from the local Metropolitan Planning Organization a statement indicating that the emissions are included in transportation plan modeling;
- Obtain agreement from the state to include the emissions in the SIP;
- Conduct air quality modeling to demonstrate that the emissions would not cause or contribute to a violation of the NAAQS; this modeling option is not available for areas in nonattainment for ozone or NO₂ and some PM_{2.5} areas; or

- Mitigate or offset the increase in emissions; offset emissions must be offset to zero for ozone precursors, nitrogen dioxide and PM, not to the de minimis levels.

In addition, federal activities may not cause or contribute to new violations of air quality standards, exacerbate existing violations, or interfere with timely attainment or required interim emissions reductions toward attainment. The Project is subject to review under the General Conformity Rule. At this time a formal General Conformity determination is not presented, but a comparison to de minimis thresholds is discussed as an indication of the potential General Conformity applicability and/or determination which will need to occur prior to the start of the Project.

Table 4. Attainment Status of the State and Federal Ambient Air Quality Standards

Ambient Air Quality Standard	MDAQMD
One-hour Ozone (Federal) – standard has been revoked, this is historical information only	Proposed attainment in 2014; historical classification Severe-17 (portion of MDAQMD outside of Southeast Desert Modified AQMA is unclassified/attainment)
Eight-hour Ozone (Federal 84 ppb (1997))	Subpart 2 Nonattainment; classified Severe-15 (portion of MDAQMD outside of Western Mojave Desert Ozone Nonattainment Area is unclassifiable/attainment)
Eight-hour Ozone (Federal 75 ppb (2008))	Nonattainment, classified Severe-15
Eight-hour Ozone (Federal 70 ppb (2015))	Expected nonattainment; classification to be determined
Ozone (State)	Nonattainment; classified Moderate
PM ₁₀ 24-hour (Federal)	Nonattainment; classified Moderate (portion of MDAQMD in Riverside County is unclassifiable/attainment)
PM _{2.5} Annual (Federal)	Unclassified/attainment
PM _{2.5} 24-hour (Federal)	Unclassified/attainment
PM _{2.5} (State)	Nonattainment (portion of MDAQMD outside of Western Mojave Desert Ozone Nonattainment Area is unclassified/attainment)
PM ₁₀ (State)	Nonattainment
Carbon Monoxide (State and Federal)	Unclassifiable/Attainment
Nitrogen Dioxide (State and Federal)	Unclassifiable/Attainment
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Unclassifiable/Attainment
Particulate Sulfate (State)	Attainment
Hydrogen Sulfide (State)	Unclassified (Searles Valley Planning Area is nonattainment)
Visibility Reducing Particles (State)	Unclassified

Source: MDAQMD 2016

Table 5. Applicable Significance Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO ₂ e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO _x)	25	137
Volatile Organic Compounds (VOC)	25	137
Sulfur Oxides (SO _x)h	25	137
Particulate Matter (PM ₁₀)	15	82
Particulate Matter (PM _{2.5})	12	65
Hydrogen Sulfide (H ₂ S)	10	54
Lead (Pb)	0.6	3

Source: MDAQMD 2016

Toxic Air Pollutants

USEPA and CARB regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB has been granted permission to establish emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications. Airborne Toxic Control Measures (ATCMs), including the following relevant measures, are implemented to address sources of TACs:

- ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower (hp) and Greater

Local Laws, Regulations, and Policies

The MDAQMD has adopted several plans to address ozone and particulate matter issues in the planning area (Table 6).

Table 6. MDAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	9-Jun-08	Federal eight hour ozone (84 ppb)	Western Mojave Desert Nonattainment Area (MDAQMD portion)	NO _x and VOC	2019 (revised from 2021)
2004 Ozone Attainment Plan (State and Federal)	26-Apr-04	Federal one hour ozone	Entire District	NO _x and VOC	2007
Triennial Revision to the 1991 Air Quality Attainment Plan	22-Jan-96	State one hour ozone	Entire District	NO _x and VOC	2005
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	31-Jul-95	Federal daily and annual PM ₁₀	Mojave Desert Planning Area	PM ₁₀	2000
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO _x and VOC	2007
Reasonable Further Progress Rate-Of-Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO _x and VOC	2007
1991 Air Quality Attainment Plan	26-Aug-91	State one hour ozone	San Bernardino County portion	NO _x and VOC	1994

The MDAQMD maintains a set of Rules and Regulations to implement these plans.

-Rule 403a – The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies to protect and improve air quality in the plan area through cost-effective and sustainable means, while also assuring county's compliance with state and federal air quality standards.

3.3.2 Environmental Setting

The Project site is located within the Mojave Desert Air Basin (MDAB) and is within the jurisdiction of the MDAQMD. The Air Quality Management Plan (AQMP) provides a program for obtaining attainment status for key monitored air pollution standards, based on existing and future air pollution emissions resulting from employment and residential growth projections. The AQMP is developed using input from various agencies' General Plans and other projections for population and employment growth. While the Project is not identified specifically in the County of San Bernardino General Plan (San Bernardino County 2007), it will not generate new homes or employment opportunities that will change the County's projections. Given that the Project will not alter the population or employment projections considered during the

development of the AQMP, and considering the minor emissions attributable to the Project during operation (item b below), effects associated with AQMP consistency will be less than significant.

The primary pollution sources in the vicinity of the Project area are vehicles and nearby residential and commercial activities. The nearest sensitive receptors are residences in the community, which are scattered throughout the Project vicinity. The Project area does not contain ultramafic soils and is not in an area known to contain naturally occurring asbestos (Van Gosen and Clinkenbeard 2011).

3.3.3 Discussion of Impacts

- a) *No Impact.* The Project would not conflict with or obstruct implementation of the applicable air quality plan. Minimal and temporary air emissions, as discussed under item b) below and would be consistent with applicable air quality plans and regulations for the region. During construction, for example, the contractors will be required to:
- Use periodic watering for short-term stabilization of Disturbed Surface Area to minimize visible fugitive dust emissions.
 - Take actions sufficient to prevent project-related Trackout onto paved surfaces;
 - Cover loaded haul vehicles while operating on Publicly Maintained paved surfaces;
 - Stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than thirty days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate Visible Fugitive Dust emissions;
 - Cleanup project-related Trackout or spills on Publicly Maintained paved surfaces within twenty-four hours; and
 - Reduce non-essential Earth-Moving Activity under High Wind conditions. For purposes of this Rule, a reduction in Earth-Moving Activity when visible dusting occurs from moist and dry surfaces due to wind erosion shall be considered sufficient to maintain compliance."
- b) *Less than Significant Effect.* The Project would not violate any air quality standard or contribute to an existing or projected air quality violation. Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Long-term emissions from system operations and periodic maintenance would be minimal and similar to current conditions. Emissions modeling was not conducted for the Project because of the nature of the emissions (construction only). No new long-term sources of emissions would be created by the Project.
- c) *Less than Significant Effect.* The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment

under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). As discussed under item b), the Project would result in temporary minor construction-related emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant. The Project would cause short-term air quality effects as a result of construction activities; however, it would not result in long-term or cumulatively considerable increases in air quality pollutant emissions.

- d) *Less than Significant Effect.* The Project would not expose sensitive receptors to substantial pollutant concentrations.
- e) *Less than Significant Effect.* The Project would not create objectionable odors affecting a substantial number of people. Temporary construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes and asphalt paving, which has a distinctive odor during application. These activities would take place intermittently throughout the workday during the construction period, and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the work area may find these odors objectionable. However, the infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would ensure a substantial number of people are not affected by odors generated during construction. Many work sites are not near residential areas. During operation, emergency generators may be used at the pump station or well sites when electrical grid power is not available or during facility testing. The emergency generators would be powered by gasoline, diesel, or natural gas. No permanent generator is proposed. During extended power outages, a temporary generator would be used.
- f) *Less than Significant Effect.* The Project would not generate greenhouse gas emissions, either directly or indirectly that would have a significant effect on the environment. The Project would not increase the generation of emissions after construction is complete because water production and distribution operations would be similar to the current operations. The replaced pipeline could improve distribution operations and potentially reduce the long-term operational emissions, which could result in a slight decrease in GHG emissions over the long term. GHG emissions resulting from construction activities would be short term and minor. The emergency power generator would only be operated during extended power outages and scheduled maintenance and testing. No permanent genset is proposed, only a rented roll-up.
- g) *No Impact.* The Project would not generate significant emissions of GHGs and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of greenhouse gases.

3.4 Biological Resources

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

3.4.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 USC § 1531 et seq.; 50 CFR Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share

responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the “take” of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC § 1532). Section 7 of the ESA (16 USC § 1531 et seq.) outlines the procedures for federal interagency cooperation to conserve federally-listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in “take” of endangered or threatened species, subject to specific conditions.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird, or the parts, nests, or eggs of such a bird, constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. USFWS is responsible for overseeing compliance with the MBTA.

Executive Order 11990, Protection of Wetlands

Executive Order (EO) 11990 provides for protection of wetlands from federal or federally approved projects when a practicable alternative is available. If impacts on wetlands cannot be avoided, all practicable measures to minimize harm must be included. The U.S. Army Corps of Engineers (USACE) is the administering agency.

State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code (F&G) includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (F&G §§ 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA (F&G §§ 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. F&G § 2080 prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. The California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing take of listed and candidate species if

that take is incidental to an otherwise lawful activity, subject to specified conditions. F&G §§ 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, F&G §§ 3511, 4700, 5050, and 5515 identify species that are fully protected from all forms of take. F&G Section 3511 lists fully protected birds, § 5515 lists fully protected fish, § 4700 lists fully protected mammals, and § 5050 lists fully protected amphibians.

Local Laws, Regulations, and Policies

The Conservation Element of the San Bernardino County General Plan (San Bernardino County 2007) outlines many goals and policies pertinent to biological resources. General themes include: preservation and management of terrestrial and aquatic habitats, and riparian corridors; adaptive management of special status species; conservation and management of mature trees; and restoration of natural ecological functions. The General Plan constructs a framework of policies to achieve these goals through pre-project design considerations, the use of biotechnical alternatives, established setbacks and work exclusionary-zones, removal of invasive species and promotion of native species, and compensatory mitigation measures (San Bernardino County 2007).

3.4.2 Environmental Setting

Sensitive Species

Two special status wildlife species (Desert Tortoise and Burrowing owl) and eight special status plant species (Shockley's rockcress, Alkali mariposa-lily, Purple-nerve cymopterus, Parish's popcornflower, Parish's alkali grass, California alkali grass, Latimer's woodland-gilia, and Salt spring checkerbloom) have been documented within approximately ten miles of the site based on a general literature review of USFWS, CDFW, and California Natural Diversity Database (CNDDDB) database searches. However, none of these species were observed during the biological field survey (RCA 2018a). Focused surveys were performed for the desert tortoise (October 30 and 31, 2017) and the burrowing owl (February 14, and 26, 2018, March 7, and 15, 2018).

General Biological Survey Results

Approximately 75% of the proposed project will take place in areas that already support development (maintained dirt roads, paved roads, intersections, etc.). The following observations were made during the field survey (RCA 2018a).

Southern Tank Site supports a relatively undisturbed creosote bush community dominated by creosote bush (*Larrea tridentate*) and white bur-sage (*Ambrosia dumosa*). Other species observed included: brome grasses (*Bromus sp.*), Joshua tree (*Yucca brevifolia*), and schismus

(*Schismus sp.*). The only wildlife species observed at this site was the common raven (*Corvus corax*).

Jubilee Mutual Water Company - Southern Easement supports a moderately disturbed creosote bush community dominated by creosote bush (*Larrea tridentate*) and white bur-sage (*Ambrosia dumosa*). Other species observed included: brome grasses (*Bromus sp.*), Joshua tree (*Yucca brevifolia*), and schismus (*Schismus sp.*). The wildlife species observed at this site included the common raven (*Corvus corax*), and the desert cottontail (*Sylvilagus auduboni*).

Palomar Pressure Reducing Station The area immediately surrounding the intersection is disturbed although some native vegetation is present along the southwest corner of the intersection. The species observed included: creosote bush (*Larrea tridentate*), white bur-sage (*Ambrosia dumosa*), brome grasses (*Bromus sp.*), schismus (*Schismus sp.*), and teddy bear cholla (*Cylindropuntia bigelovii*). No wildlife species were observed at the Palomar work site.

Chickasaw Pressure Reducing Station Single-family homes border the intersection to the north, south, east, and west. Brome grasses (*Bromus sp.*), and schismus (*Schismus sp.*) were the only plant species associated with this work site, and no wildlife species were observed.

Jubilee Mutual Water Company - Northern Easement site supports a relatively undisturbed creosote bush community dominated by creosote bush (*Larrea tridentate*) and white bur-sage (*Ambrosia dumosa*). Other species observed included: desert willow (*Chilopsis linearis*), Russian thistle (*Salsola tragus*), brome grasses (*Bromus sp.*), Joshua tree (*Yucca brevifolia*), and schismus (*Schismus sp.*). The only wildlife species observed at this site was the common raven (*Corvus corax*).

Gordon Acres Water Company - Tank Line site supports a relatively undisturbed creosote bush community dominated by creosote bush (*Larrea tridentate*) and white bur-sage (*Ambrosia dumosa*). Other species observed included; Russian thistle (*Salsola tragus*), brome grasses (*Bromus sp.*), Joshua tree (*Yucca brevifolia*), teddy bear cholla (*Cylindropuntia bigelovii*), and schismus (*Schismus sp.*). The wildlife species observed at this site included the common raven (*Corvus corax*), desert cottontail (*Sylvilagus auduboni*), Song sparrow (*Melospiza melodia*), and Western whiptail lizard (*Cnemidophorus tigris*).

Gordon Acres Water Company - Transmission Line Most of the proposed transmission line is surrounded by vacant land that supports a relatively undisturbed creosote bush community dominated by creosote bush (*Larrea tridentate*) and white bur-sage (*Ambrosia dumosa*). However, alfalfa fields border Camp Rock Rd. to the east in the area where the transmission line is being proposed. The wildlife species observed at this site included the common raven (*Corvus corax*), and Song sparrow (*Melospiza melodia*).

Gordon Acres Water Company - Distribution Line The area is primarily surrounded by single family homes with some vacant land that supports creosote bush (*Larrea tridentate*) and white

bur-sage (*Ambrosia dumosa*). Other species observed included; Russian thistle (*Salsola tragus*), brome grasses (*Bromus sp.*), Joshua tree (*Yucca brevifolia*), teddy bear cholla (*Cylindropuntia bigelovii*), and schismus (*Schismus sp.*). The wildlife species observed throughout this area included the common raven (*Corvus corax*), Song sparrow (*Melospiza melodia*), and Western whiptail lizard (*Cnemidophorus tigris*).

Well Sites are relatively small (under 0.25-acres) and are clear of most native vegetation. Each well site is surrounded by a chain-link fence to keep trespassers and wildlife from entering each site. Plants on each site consisted of Russian thistle (*Salsola tragus*), brome grasses (*Bromus sp.*), and schismus (*Schismus sp.*).

Results of Focused Desert Tortoise Survey

No desert tortoises, tortoise scats, or tortoise burrows were observed within the proposed Project area during the field surveys (RCA 2018b). The project sites are located within the known distribution of desert tortoise and the species has been observed within approximately six miles of the Project sites according to the CNDDDB (CNDDDB, 2017). Suitable habitat for the desert tortoise is present throughout the site and the surrounding area (RCA 2018a, b).

Results of Focused Burrowing Owl Survey

No burrowing owls or owl sign were observed during the field surveys and no suitable burrows were identified (RCA 2018c). However, due to the presence of habitat for burrowing owls and the recorded sighting of the species within 2.5 miles of the Project area, there is potential for the species to occur.

Migratory Birds and Raptors

No migratory birds or nesting activities were observed during the field surveys for the General Biological Resources Assessment or the Burrowing Owl Focused Survey Report. In compliance with USFWS guidance, a pre-construction survey will be performed by a qualified biologist that documents that no actively nesting migratory birds or raptors are present prior to any brushing, clearing and/or grading, or other construction activities during the breeding season of nesting migratory birds and raptors (January 1st to August 31st). If any active migratory bird or raptor nests are detected, an area 300 feet from each nest will be staked and posted to prohibit all clearing, grubbing and construction work within the perimeter until the qualified biologist determines that the nests are no longer occupied (RCA 2018a).

3.4.3 Discussion of Impacts

- a) *Less than Significant With Mitigation Incorporated.* The Project is not expected to have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special status species. The Project sites are located within the

known distribution of the desert tortoise and burrowing owl; therefore, focused surveys were performed for the two species. No desert tortoises, tortoise scats, or tortoise burrows were observed during the field surveys within the Project area (RCA 2018b). No burrowing owls, or owl sign were identified during the field surveys, and no suitable burrows for burrowing owl were identified (RCA 2018c).

No other federal or State-listed species were observed on the Project sites during the field surveys including the Mohave ground squirrel, California condor, Cushenbury milk-vetch, and the Parish's daisy. In addition, there are no documented observations of these species either on the site or in the immediate area. Several other special status species occur in the region; however, these species are unlikely to occur on the site based on the low population levels in the region. If any special status species are observed on the site or in the surrounding area during construction activities, CDFW and USFWS (as applicable) will be contacted to discuss additional mitigation measures which may be required for the individual species. For all the species that may be encountered, the following mitigation measures will be required. With the implementation of Mitigation Measures listed below the potential impact to these species would be reduced to a less than significant level.

Mitigation Measure BR-1:

If vegetation removal or ground disturbance activities occur during the nesting season (January 1st to August 31st), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than two weeks prior to the initiation of construction. If construction activities are delayed or suspended for more than two weeks after the preconstruction survey, the site shall be resurveyed.

If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged, as determined through additional monitoring by a qualified biologist. Further, to prevent nest abandonment and mortality of chicks and eggs, no construction activities shall occur within 300 feet of an active nest unless a smaller buffer zone is authorized by a qualified biologist in consultation with the CDFW and the USFWS (the size of the construction buffer zone may vary depending on the species of nesting birds present). A qualified biologist shall delineate the buffer zone with construction tape or pin flags that shall remain in place until the young have fledged, as determined through additional monitoring by a qualified biologist.

The qualified biologist shall monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. If any active nests associated with migratory bird species or raptors are encountered during Project construction, construction activities within the 300-foot zone will be delayed until nesting activities have ceased as determined by a focused survey to be performed by the qualified

biologist. Guidance from CDFW shall be requested if the nestlings within an active nest appear disturbed. The qualified biologist shall have the authority to stop any work determined to be adversely affecting the nesting activity. The qualified biologist shall report any "take" of active nests to CDFW.

Mitigation Measure BR-2:

Pre-construction surveys for desert tortoise shall be conducted by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas within the potential footprint of disturbance for the Project, as well as a reasonable buffer around these areas. Should desert tortoise be encountered, CDFW and USFWS shall be contacted to discuss additional mitigation measures which may be required.

Mitigation Measure BR-3:

- Clearing of the Project area including blading of new access or work areas shall be minimized to the extent possible. Disturbance to shrubs shall be avoided if possible. If shrubs cannot be avoided during equipment operation or vehicle use, wherever possible they should be crushed rather than excavated or bladed and removed.
- Project features that might trap or entangle desert tortoises, such as open trenches, pits, open pipes, etc shall be covered at the end of each work day or modified to prevent entrapment through the installation of escape ramps or sloped at the ends at a 3:1 ratio.
- After completion of the Project, trenches, pits, and other features in which tortoises could be entrapped or entangled, shall be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoises.
- Unleashed dogs shall be prohibited in Project areas.
- Temporary fencing, such as chicken wire, snow fencing, chain link, and other suitable materials shall be used in designated areas to reduce encounters with tortoises.
- In potential desert tortoise habitat project-related vehicles shall not exceed 15 miles per hour on unpaved roads.

Mitigation Measure BR-4:

Pre-construction surveys for Parish's daisy shall be conducted concurrent with pre-construction surveys for the desert tortoise (BR-2) by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas of the Project, as well as a reasonable buffer around these areas even if these areas are not within the potential footprint of the desert tortoise (BR-2). Should Parish's daisy be encountered, proposed facilities will

be examined for reasonable rerouting or relocation. If facilities cannot reasonably be rerouted or relocated, CDFW and USFWS shall be contacted to discuss possible species relocation and additional mitigation measures which may be required.

- b) *No Impact.* The Project would not have an effect on riparian habitat or other sensitive natural communities. No riparian vegetation (e.g., cottonwoods, willows, etc.) exist on the site. Approximately 75% of the area where the proposed Project is to take place supports developed land consisting mostly of single-family homes and established roads (dirt and paved). The remaining 25% of the area supports a relatively undisturbed creosote bush (*Larrea tridentata*) community typical of this portion of the Mojave Desert.
- c) *No Impact.* No wetlands were observed within or near the Project site. The Project is not expected to have a substantial adverse effect on any federally protected wetlands.
- d) *No Impact.* The Project would not interfere with the movement of fish or wildlife species or impede the use of native wildlife nursery sites. No sensitive habitats or wildlife movement corridors were noted on the property during general biological resources assessment and focused surveys.
- e) *No Impact.* The Project would not conflict with any local policies or ordinances protecting biological resources. Construction and maintenance of the proposed Project would not result in the immediate loss of habitat or vegetation, nor would it displace any wildlife immediately.
- f) *No Impact.* No local, regional, state, or federal habitat conservation plans have been adopted for the Project area.

3.5 Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

3.5.1 Regulatory Setting

Federal Laws, Regulations, and Policies

If federal funding in the form of State Revolving Funds are applied to this project, the National Environmental Policy Act requires that the National Historic Preservation Act and the Archeological and Historic Preservation Act (AHPA) applies to this project.

The National Historic Preservation Act (NHPA) embodies a long-standing national policy to preserve historic sites, buildings, structures, districts and objects of national, state, tribal, local, and regional significance and, among other things, to protect such historic properties from adverse impacts caused by activities undertaken or funded by federal agencies. The NHPA is administered by the DOI and the Advisory Council on Historic Preservation (the Council). The Council implements section 106 of the NHPA and has promulgated regulations for consultation regarding how to determine the effects of federal agency undertakings on historic properties. 36 C.F.R. Part 800. Although under certain circumstances the Council may become directly involved in such consultations, the procedures generally call for consultation between the federal agency and relevant state or tribal historic preservation officers (SHPOs and THPOs) and other interested parties.

The intent of the Archeological and Historic Preservation Act (AHPA) is to limit the loss of important historical data that would result from federal, or federally authorized, construction activities. Unlike section 106 of the NHPA, which principally addresses adverse effects to historic properties identified within a project area prior to project initiation, the requirements of the AHPA are typically invoked when historic properties are discovered after the project has begun and potential adverse effects may occur.

State Laws, Regulations, and Policies

CEQA and CEQA Guidelines

Section 21083.2 of the California Public Resources Code (Public Resources Code) requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in the Public Resources Code as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under Public Resources Code § 21083.2.

Section 15064.5 of the CEQA Guidelines notes that “a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Substantial adverse changes include physical changes to the historical resource or to its immediate surroundings, such that the significance of the historical resource would be materially impaired. CEQA lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource before they approve such projects. Historical resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code §5024.1[k]);
- included in a local register of historic resources (Public Resources Code §5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code §5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines § 15064.5 also prescribes the processes and procedures found under Health and Safety Code § 7050.5 and Public Resources Code § 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the Project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines § 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

California Register of Historical Resources

Public Resources Code § 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the National Historic Preservation Act (NHPA). The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

- are associated with the events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- are associated with the lives of persons important in our past;

- embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

Local Regulations and Policies

The San Bernardino County General Plan Update for 2007 (San Bernardino County 2007) contains policies related to cultural and paleontological resources under the Conservation Element. The Plan contains an overarching goal to protect and interpret the cultural resources within the County. There are two objectives of the goal: to maintain an inventory of the cultural resources within the county, and to conduct a cultural resources review of new projects to ensure that known or previously unidentified cultural and paleontological resources are protected. There are, furthermore, three policies to support the goal. The policies include the involvement of Native American tribes when ancestral sites are found within a development project; requiring that cultural resources are taken into account when new planning documents are prepared; and requiring appropriate review, protection, and mitigation of impacts to cultural and paleontological resources. A key component of the goal is the establishment of a Cultural Resources Committee to help with implementing the policies and ensure that cultural resources are protected.

3.5.2 Environmental Setting

A cultural resources study for the Project area was conducted by Applied Earthworks. The study included a records search of the California Historical Resources Information System, tribal outreach, and a field survey. The records search indicated three resources in the project area including two historic-era roads and a historic-era refuse dump. The Sacred Lands File Search completed on January 9, 2018 by the Native American Heritage Commission (NAHC) returned negative results for the project area. The NAHC provided a list of tribes culturally affiliated with the project area including the Morongo Band of Mission Indians, the San Fernando Band of Mission Indians, the San Manuel Band of Mission Indians, the Serrano Nation of Mission Indians, and the Twenty-Nine Palms Band of Mission Indians. Project notification letters were sent to the tribes on January 10, 2018. Anthony Madrigal Jr., THPO of the Twenty-Nine-Palms Band, stated he was not aware of any cultural resources within the project area and requested a copy of the cultural report. Jessica Mauck, Cultural Resources Analyst, for the San Manuel Band of Mission Indians, also requested a copy of the report from the Lead Agency. Copies of the report were sent to the requesting individuals.

The three resources recorded in the project area are not historical-resources or unique archaeological resources under CEQA.

3.5.3 Discussion of Impacts

- a) *No Impact.* No historical resources were identified in the cultural survey. The survey identified one previously unrecorded resource (a brass benchmark); however, the new resource is not significant under CEQA or NHPA and no significant prehistoric resources were identified within the Project area.
- b) *No Impact.* No unique archaeological resources were identified in the cultural survey. However, in the event that such remains are discovered, TCR-1 will be implemented.
- c) *No Impact.* The Project is not expected to destroy a unique paleontological resource or site or unique geologic feature. No fossil bearing resources were identified in the cultural report.
- d) *No Impact.* No human remains were identified in the Project footprint and there was no evidence found in the course of preparing the cultural resources assessment that the area has been used as a cemetery or burial ground in the past. The Project is not expected to disturb human remains. Regardless, it is always possible that human remains may be present at subsurface levels.

State law prescribes measure that must be taken in the event that any human remains are discovered. Section 7050.5 of the California Health and Safety Code requires that the County Coroner shall be immediately notified of the discovery and no further excavation or disturbance of the site or nearby area may occur (100-foot buffer) until the County Coroner has determined, within two working days of notification of the discovery, the nature of the remains. If the Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The MLD would then determine, in consultation with the property owner, the disposition of the human remains. Compliance with state and federal law would ensure that no impacts occur to any human remains that may be discovered on site.

3.6 Geology, Soils, and Seismicity

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Effect	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

3.6.1 Regulatory Setting

Federal Laws, Regulations, and Policies

The National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. Four federal agencies are responsible for coordinating activities under NEHRP; U.S. Geological Survey (USGS); National Science Foundation (NSF); Federal Emergency Management Agency (FEMA); and National Institute of Standards and Technology (NIST). Since its inception,

NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2016) are as follows:

- developing effective measures to reduce earthquake hazards;
- promoting the adoption of earthquake hazard reduction activities by federal, state, and local governments, national building standards and model building code organizations, engineers, architects, building owners, and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or “lifelines”;
- improving the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering, natural sciences, and social, economic, and decision sciences; and
- developing and maintaining the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code § 2621 et seq.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist-Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as “active,” and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well defined.” Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code §§ 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo

Act: The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

Title 24 CCR, also known as the California Building Standards Code (CBC), specifies standards for geologic and seismic hazards other than surface faulting. These codes are administered and updated by the California Building Standards Commission. The CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains a number of goals related to geology and soils, including measures related to minimizing risks associated with seismic and geologic hazards, and measures to reduce erosion and soil transport.

3.6.2 Environmental Setting

The Mojave Desert is a subsection of the Basin and Range Physiographic Province, which is characterized by long, north-south-trending mountain ranges separated by broad valleys. The site is located on a broad gently sloping bajada of alluvial material originating from the San Bernardino Mountains to the south. Elevation of the Project site ranges from approximately 3,240 feet above sea level (asl) at its northwest corner up to 3,346 feet asl at its southeast corner. The topography is generally flat, with a slope of about 3.6 percent towards the north-northwest.

The Lucerne Valley is surrounded by geologic units assigned to the Precambrian to Quaternary geologic time units (Dibblee 1960, Blazevec 2004). Precambrian- and Paleozoic-age metamorphic and metasedimentary rocks with Mesozoic-age igneous rocks make up the surrounding mountains and provide the crystalline bedrock below the Project area (Bortugno and Spittler 1998). In the immediate vicinity of the Project, bedrock consists of the Old Woman Sandstone, a Pliocene to late Miocene-aged, non-marine arkosic sandstone and conglomerate that crops out about 1.5 miles southeast of the Gordon Acres service area, west of Camp Rock Road. This unit probably represents bedrock at an unknown depth beneath the Project site (Bortugno and Spittler 1998, Blazevec 2004).

Surficial deposits include fanglomerates and alluvium deposited at the foot of the San Bernardino Mountains. Of particular distinction are deposits of the Blackhawk Slide (Stout 1982). The 17,400 (C-14 date, Stout 1982) deposit of brecciated blocks of Paleozoic limestone derived from the adjacent San Bernardino Mountains foothills.

The Project is located in a zone of high tectonic activity, approximately 20 miles northeast of the San Andreas Fault Zone and 80 miles southeast of the Garlock Fault (Reynolds and Kenny 1974). The southern border of the Mojave Desert province is characterized by northwest-trending, right-lateral, strike-slip faulting directly tied to plate boundary tectonics along the San Andreas Fault Zone, approximately 23 miles southwest of the Project area.

The major tectonic element of the region is the Helendale Fault, the surface expression of which is located about 1.3 miles southwest of the southern terminus of the Project (Dibblee 1960, CDC 2013). Segments of the discontinuous, en-echelon, fault zone are considered active in the Holocene Epoch (Bull 1976, CDC 2013). The status of seismicity in the area is compounded by the intersection of the Helendale Fault with faults of the North Frontal Thrust Zone (NFTZ), a broad band of complex, south-dipping, reverse and thrust faults that define the southeastern margin of the San Bernardino Mountains (Bull 1976, Bryant 1986, CDC 2013). Holocene displacement along the NFTZ has been recognized on several surface traces (Bull 1976, Bryant 1986).

Historic seismicity in the area has been abundant, as suggested by the active tectonics of the entire region (Bull 1967, Reynolds and Kenny 1974, CDC 2013). Most epicenters have been located in the area where the Helendale Fault trace merges with the NFTZ. Two earthquakes of 5.0 to 5.9 moment magnitude have occurred at the base of the foothills (CDC 2013). In 1992 a 6.5 moment magnitude earthquake occurred at Big Bear Lake, about one mile from the Helendale fault and five kilometers deep (CDC 2013). While this earthquake might have been an aftershock of the three-hour-earlier Landers earthquake, no surface rupture accompanied the Big Bear event (CDC 2013).

Soils that underlie the Project area include Cajon sand, 0 to 9 percent slopes and Kimberlina loamy fine sand at 0 to 2 percent slopes (Figure 4, USDA-NRCS 2017). These soils are well to excessively drained with variable salinity, alkalinity and carbonate composition.

A geotechnical report was completed in 2017 that detailed site-specific subsurface conditions (NV5 2017). If standard construction methods are followed there should be no foundation problems associated with the Project. The geotechnical report found that the Project is underlain predominantly by silty to clayey sands and fine-grained sands. These materials are generally considered to have very low to low expansion indices. Differential settling will be minimal and the corrosivity potential of the surface soil is negligible.

The report went on to state that assuming the construction of the Project followed the 2016 California Building Code and utilized the seismic design parameters developed in the report,

seismic shaking would not pose a hazard to the public. Further, the report indicated that no evidence could be found that suggested that the site would experience either fault rupture or soil liquefaction/dynamic settling. Subsidence due to subsurface withdrawal of fluid was not likely. The Project is located on flat ground and far inland; therefore, seismically induced flooding, seiche or tsunami hazards do not exist in the area (NV5 2017).

3.6.3 Discussion of Impacts

- a) *No Impact.* The Project area is not near any Alquist-Priolo faults, and the potential for seismic-related ground failure or landslides is considered low based on soil and geologic conditions detailed in the geotechnical report (NV5 2017). The Project would not expose people to seismic-related soil or geologic hazards.
- b) *Less than Significant Effect.* The Project would not result in substantial soil erosion or the loss of topsoil. Construction activities would result in temporary soil disturbance throughout the Project area. The majority of soil disturbance would occur in previously disturbed area without native topsoil. Along the pipeline alignment, excavated soil would be used to backfill the trenches and to restore disturbed areas to pre-disturbance conditions (contours and vegetation). Disturbed soils would be exposed to erosion during construction as soils loosen and become susceptible to the effects of wind and precipitation events but this will be addressed by Stormwater Pollution Prevention Plan (SWPPP). The Project is not expected to result in the loss of topsoil because very little native topsoil is present, and topsoil would be used along the pipeline alignment to restore disturbed areas to pre-disturbance conditions. JMWC will be required to obtain an excavation permit from San Bernardino County, and the construction contractor(s) will be monitored for compliance with the permit during construction.
- c) *No Impact.* The Project area is underlain by stable soil, as indicated in the USDA NRCS Soil Survey and the geotechnical report (NV5 2017).
- d) *No Impact.* The Project area is not located on expansive soil (NV5 2017).
- e) *No Impact.* The Project does not involve construction of septic tanks or alternative wastewater disposal systems.

3.7 Hazards and Hazardous Materials

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

3.7.1 Regulatory Setting

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials, establish reporting requirements, set guidelines for handling, storage, transport, and disposal of hazardous wastes, and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are USEPA; Occupational Safety and Health Administration (OSHA); California

Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); State Water Resources Control Board (SWRCB); Central Valley Regional Water Quality Control Board (Central Valley RWQCB); and MDAQMD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC § 9601 et seq.) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC § 6901 et seq.), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in California, in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Spill Prevention, Control, and Countermeasure Rule

USEPA's Spill Prevention, Control, and Countermeasure (SPCC) Rule (40 CFR, Part 112) apply to facilities with a single above-ground storage tank (AST) with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public about exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the Lead Agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers also must make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible radiofrequency (RF) radiation exposure limits for workers (Title 8 CCR § 5085[b]) and requires warning signs where RF radiation may exceed the specified limits (Title 8 CCR § 5085[c]).

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the

environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of regulated substance are required to develop a risk management plan (RMP). This RMP must provide a detailed analysis of potential risk factors and associated mitigation measures that can be implemented to reduce accident potential. Certified Unified Program Agencies (CUPAs) implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or trade secret.

CAL FIRE Wildland Fire Management

The Office of the State Fire Marshal and the California Department of Forestry and Fire Protection (CAL FIRE) administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code § 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code § 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code § 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code § 4431).

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains a Hazardous Materials Element, which specifies a variety of goals and policies related to the appropriate handling, storage, and transport of hazardous materials, hazardous waste disposal, and protection of soils and water quality from hazardous materials.

3.7.2 Environmental Setting

The general geographic and site description of the project are provided in Section 2.3, Project Location and Setting.

The San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters.

Existing Hazards and Hazardous Materials

No potential or confirmed state or federal Superfund sites are located in or immediately adjacent to the Project sites (SWRCB 2015, DTSC 2015). While several agency-listed sites are present within a 1-mile radius of the Project, sites that have been affected by unauthorized material releases, the cases are listed as closed or inactive (SWRCB 2015, DTSC 2015), and none of these agency-listed sites is known to have adversely affected the Project site.

Portions of the proposed improvements are located within or near the former Victorville Bomb Range No. 8. This site is a Formerly Used Defense Site (FUDS) and is listed in the EnviroStor Cleanup Sites database and is known or suspected to contain munitions and explosives of concern (EnviroStor 2017).

Wildfire Hazards

The region surrounding the Project site is zoned as having low to moderate fire hazard severity (CAL FIRE 2008). The nearest fire station is the San Bernardino County Fire Station 7, located at 10575 Dido Avenue, and is within GAWC's service area. The proposed installation of tanks, pipelines, and hydrants would improve fire suppression capacity.

3.7.3 Discussion of Impacts

- a) *Less than Significant Effect.* The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Small amounts of hazardous materials would be used during construction activities for equipment maintenance (e.g., fuel and solvents) and re-paving roads and parking areas where needed. Hazardous materials may also be stored in staging areas, which would be located in paved areas or previously disturbed areas along easements. Use of hazardous materials would be limited to the construction phase and would comply with applicable local, state, and federal standards associated with the handling and storage of hazardous materials.
- b) *Less than Significant Effect.* The Project would not create a significant hazard to the public or the environment by way of any reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The

Project will comply with applicable local, state, and federal standards associated with the handling and storage of hazardous materials.

- c) *No Impact.* The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest school is located approximately 1.6 miles southwest of the western proposed pressure reducing station.
- d) *Less Than Significant Effect.* Portions of the proposed improvements are within and adjacent to the former Victorville Bomb Range. Hazards that may exist at this site include munitions such as general purpose bombs, practice bombs, and pyrotechnics.

The project areas that will be subjected to an investigation consist of the following:

- a. *Transmission pipeline along Joshua Avenue between the existing JMWC tank site and approximately 600 feet north of Foothill Road.*
- b. *The JMWC-owned property that contains the existing storage tanks and proposed booster station.*
- c. *Proposed pipeline, proposed pressure reducing station, and existing booster station, located between Joshua Avenue and Anza Trail, approximately 330 feet north of Arroyo Road.*
- d. *Proposed pipeline improvements along Foothill Road between Palomar Trail and Joshua Avenue*
- e. *Proposed pipeline improvements along Palomar Trail between Foothill Road and approximately 350 feet south of Foothill Road*
- f. *Proposed pipeline improvements along Anza Trail between Foothill Road and the Jubilee's existing Well Nos. 3 and 4 site.*
- g. *Jubilee's existing Well Nos. 3 and 4 site, including adjacent area for replacement well*
- h. *Jubilee's Well No. 2 site*
- i. *Proposed pressure reducing station site near Sutter Road and Chickasaw Trail*
- j. *Proposed pressure reducing station site near Sutter Road and Palomar Trail*

Jubilee will contract a firm with extensive experience in unexploded ordnance to perform this work. The firm will complete its work prior to mobilization of construction contractors. The firm contracted by Jubilee will coordinate with the Army Corps of Engineers and the San Bernardino County Fire Department, and the California Department of Toxic Substances Control as appropriate before, during, and after the investigative, intrusion, and reporting phases of the investigation.

The inspection will consist of preparing planning documents for the field teams to follow to ensure the geophysical survey is of sufficient quality and to properly handle ordnance recovered; performing digital geophysical mapping survey; intrusive investigation and removal of anomalies; and preparing and submitting an MEC (munitions and explosives of concern) investigation report and after action report to document the survey results and ordnance recovered.

- e) *No Impact.* The Project area is not located within an airport land use plan or near a public or private airport.
- f) *No Impact.* The Project area is not within the vicinity of a private airstrip.
- g) *No Impact.* The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Construction activities would require temporary lane or road closures and detours around the work areas. Adequate road access would be available in the event of an emergency to allow vehicles to drive around the work area, which would ensure the Project does not prevent emergency access to the residences or conflict with an emergency response or evacuation plan.
- h) *No Impact.* The Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires over the long term. The fire hazard rating of the area would not be altered by the Project. Water supply capacity would be improved in the area, including available supplies for wildland fire suppression, through the addition of water storage tanks above (south of) JMWC's service area, the removal of pneumatic tanks as the pressurized supply source for GAWC, and the supply of GAWC's service area from JMWC's existing tanks, thereby gravity feeding GAWC. New fire hydrants will be installed within the GAWC service and at some locations within JMWC adjacent to proposed pipelines.

3.8 Hydrology and Water Quality

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Violate any water quality standards or waste discharge requirements?				X
b) 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 (e.g., 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)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation of seiche, tsunami, or mudflow?				X

3.8.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The CWA is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The key sections pertaining to water quality regulation for the Project are CWA § 303 and § 402.

Section 303(d)—Listing of Impaired Water Bodies

Under CWA § 303(d), states are required to identify “impaired water bodies” (those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for development of control plans to improve water quality. USEPA then approves the state's recommended list of impaired waters or adds and/or removes water bodies.

Section 402— National Pollutant Discharge Elimination System (NPDES) Permits for Stormwater Discharge

CWA § 402 regulates construction-related stormwater discharges to surface waters through the NPDES. The NPDES is officially administered by USEPA. In California, USEPA has delegated its authority to the SWRCB; the SWRCB in turn delegates implementation responsibility to the nine RWQCBs, as discussed with regard to the Porter-Cologne Water Quality Control Act below.

The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits.

Municipal Separate Stormwater Sewer System (MS4) Permitting Program

The SWRCB regulates stormwater discharges from MS4s through its Municipal Storm Water Permitting Program. Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 people or more) municipalities, and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. In 2003, the SWRCB issued the first statewide Phase II MS4 General Permit, which applies to smaller municipalities (generally population less than 100,000 but greater than 50,000, or as specified by SWRCB).

Wild and Scenic Rivers Act

In 1968, Congress created the National Wild and Scenic Rivers System Act to designate and preserve certain rivers in a free-flowing condition for the enjoyment of present and future generations. Designated wild and scenic rivers have outstanding natural, cultural, and recreational values and are administered by a federal or state agency. Rivers are classified as wild, scenic, or recreational with the wild classification indicating river areas that are not impounded, only accessible by trail, and have unpolluted waters and essentially primitive watersheds or shorelines. The scenic and recreational classifications indicate rivers with perhaps more development or accessibility and/or past impoundment or diversion.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (known as the Porter-Cologne Act), passed in 1969, dovetails with the CWA (see discussion of the CWA above). It established the SWRCB and divided the state into nine regions, each overseen by an RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface water and groundwater supplies. However, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA §§ 401, 402, and 303[d]. In general, the SWRCB manages water rights and regulates statewide water quality, whereas the RWQCBs focus on water quality within their respective regions.

The Porter-Cologne Act requires the RWQCBs to develop water quality control plans (also known as Basin Plans) that designate beneficial uses of California's major surface water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a water body—i.e., the reasons why the water body is considered valuable. Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin Plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter-Cologne Act, Basin Plans must be updated every 3 years.

The Project is located in the Lucerne Valley and part of the Este Subarea of the Morongo Groundwater Basin (Bortugno and Spittler 1998, Blazevic 2004). The Helendale Fault transects the southwest portion of the basin, separating the Morongo Groundwater Basin from the Mojave River Groundwater Basin, creating a barrier to groundwater flow (CDWR 2003, Blazevic 2004). Blazevic (2004) concluded that the basin is a closed watershed with no external surface water flows out and that the topographic low of the basin is Lucerne Dry Lake.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains a number of goals related to hydrology and water quality, including conservation of surface and ground water supplies; safeguard and maintenance of natural waterways, levees, and drainage facilities to ensure water quality; and reduction of flood hazards.

3.8.2 Environmental Setting

Topography and Climate

Lucerne Valley is in the northwest part of the Colorado River Hydrologic Region. The basin is bounded on the south by the San Bernardino Mountains and on the west by the Granite Mountains and the Helendale fault. The Ord Mountains bound the basin on the north. The Camp Rock fault and Kane Wash Area Groundwater Basin bound this basin on the east and the Fry Mountains bound this basin on the southeast. Parts of the eastern and southeastern boundaries are surface drainage divides (CDWR 2003). The elevation of the area ranges from about 3,170 feet asl at the far southwest to about 2,950 feet asl at the northeast with the land sloping at about 5.5 percent to the northeast.

Western San Bernardino County has an arid climate with hot, dry summers and cool, rainy winters (San Bernardino County 2007). Summer temperatures reach highs of over 100 degrees Fahrenheit and winter temperatures drop to below freezing, with occasional snowfall. Average June maximum temperature at the Victorville Pump Station, approximately 25 miles west-northwest of the site, is 93.4 degrees Fahrenheit and average January low is 31.4 degrees Fahrenheit. Precipitation generally occurs in the winter months. At Apple Valley, approximately 18 miles west-northwest of the Project, the average precipitation is 4.44 inches.

Surface water drains toward Lucerne Dry Lake in the western portion of the basin, which has an elevation of 2,850 feet asl. Average annual precipitation is 4 to 6 inches in the lower part of the valley and 6 to 8 inches in the upper parts of the valley. (CDWR 2003).

The Project area has no integrated natural drainage other than constructed stormwater conveyance structures. According to a jurisdictional determination of the adjacent Marathon Solar Project (SPL-2012-00698(JD-BEM)), there are no waters of the United States present in the area. JMWC submitted a Request for Jurisdictional Determination to the Army Corps of Engineers in July 2018, which is under review by the Army Corps, for the drainage crossing northwest of the proposed tank site. This drainage was included in the Marathon Solar Project determination.

A flood map search (FEMA 2011) for Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel ID number 06071C6600H confirms the area has not been

mapped by FEMA for flood zone hazards, and is therefore classified as an “Undetermined Risk Area.” The County of San Bernardino also has no flood zone hazard mapping for this area.

The Project area is not situated over a U.S. Environmental Protection Agency sole source aquifer (EPA 2016).

3.8.3 Discussion of Impacts

- a) *No Impact.* The Project would not violate any water quality standards or waste discharge requirements. The Project would address violations received from San Bernardino County DEHS and cause the GAWC to meet drinking water standards for storage capacity, nitrate levels, pressure and flow capacity, and reliability. GAWC will be consolidated into JMWC as part of this project. Supply to GAWC’s water system will be primarily from JMWC’s existing sources, which do not have water quality issues. JMWC is applying for a waiver from the SWRCB for discharges from small drinking water systems.
- b) *No Impact.* The Project would not affect groundwater recharge and groundwater supplies because the Project would obtain its water from the same sources as the existing systems and not additionally deplete groundwater supplies.
- c) *Less Than Significant Effect.* The Project would cause minor alterations to the existing drainage pattern of the site or area, but would not result in substantial erosion or siltation on- or off-site. The Project would not alter the course of a stream or river. Best Management Practices for sediment control are included in the Project.
- d) *No Impact.* The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The pipelines would be located underground. New impervious surfaces would be the proposed pump station (400 sq. ft.) and three new storage tanks. A County-approved drainage plan will stipulate conveyance features built to protect adjacent property.
- e) *Less Than Significant Effect.* The Project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The proposed impervious improvements are the proposed water storage tanks and proposed pump station (to replace the existing pump station with a comparable footprint). Drainage studies indicate that no change in storm water runoff will occur at the site.
- f) *No Impact.* The Project would not degrade water quality. Drinking water quality would be improved.
- g) *No Impact.* The Project would not involve the construction of housing.
- h) *No Impact.* The Project area would not place structures within a 100-year flood hazard area which would impede or redirect flood flows.

- i) *No Impact.* The Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- j) *No Impact.* The Project would not expose people or structures to risks from inundation by seiche, tsunami, or mudflow.

3.9 Land Use and Planning

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?				X

3.9.1 Regulatory Setting

San Bernardino County General Plan

The San Bernardino County General Plan, which was adopted in 2007 guides development in unincorporated San Bernardino County (San Bernardino County 2007). The general plan land use designation for the Project sites and immediate vicinity is primarily Agricultural (AG), Rural Living (RL), and Single Residential (RS). All of these land use designations are Rural designations, indicating that the area is intended to support rural uses and have public services and infrastructure provided during the General Plan's planning period.

San Bernardino County Zoning Code

The San Bernardino County Zoning Code (San Bernardino County 2017) establishes land use zones and standards and regulations for development in those zones, within unincorporated San Bernardino County. The Project sites and immediately adjacent areas are located within the following zoning districts: Agriculture (AG), Rural Living (RL, RL-5, RL-10), and Single Residential (RS-1).

3.9.2 Environmental Setting

The main land uses in the vicinity of the Project are residential, small commercial, and small agricultural. The 30-megawatt (MW) Lone Valley Solar photovoltaic (PV) facility occupies approximately 130 acres of a 152-acre site located at the southern terminus of the Project, directly across Joshua Avenue. Land ownership in and adjacent to the Project area is mostly private. The Project area is not in a Coastal Zone Management Area or near a Wild and Scenic River (or its watershed area), Designated National Monument, or National Park.

3.9.3 Discussion of Impacts

- a) *No Impact.* The Project would not physically divide an established community. The Project involves construction of an underground pipeline under existing roads and in previously developed or disturbed areas.
- b) *No Impact.* The Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project. No zone changes would be necessary to accommodate the Project.

The project supports the goals of the draft Lucerne Valley Community Plan with regard to water system reliability. Specifically, the project's goals support the draft Community Plan's Community Focus Statement D: Improve Lucerne Valley's water and sewer infrastructure with a focus on the community's sustainability. The consolidation of GAWC and Jubilee Mutual Water Company, along with the associated infrastructure improvements, will result in improved operation, system reliability, delivery capacity, and efficiency.

The project also supports the goal of the State Water Resources Control Board's FY2017-2018 Drinking Water Intended Use Plan (IUP) with regard to supporting consolidation of small drinking water systems that serve disadvantaged communities. The proposed project supports the IUP's short term and long term goals for consolidating small water systems serving disadvantaged communities.

Following the consolidation of the Gordon Acres Water Company and Jubilee Mutual Water Company, Jubilee Mutual Water Company will prepare and submit an updated map of its water system boundaries to the San Bernardino County Local Agency Formation Commission (LAFCo) for compliance with this portion of AB54.

The zoning of the proposed storage tank site (RL) does not allow large utility infrastructure. Jubilee Mutual Water Company, the owner of the parcel (APN 0449-631-57) and of the water system, will submit a conditional use permit to the County of San Bernardino Land Use Services Department to allow use of the parcel for storage tank purposes. This will be a continued effort following Jubilee's pre-application conference with the Land Use Services Department (P201700527).

- c) *No Impact*. The Project would not conflict with any applicable habitat conservation plan or natural communities' conservation plan. There are no habitat conservation plans or natural communities' conservation plans for the Project area.

3.10 Mineral Resources

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

3.10.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to mineral resources and the Project.

State Laws, Regulations, and Policies

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain regionally significant mineral resources. Designations of land areas are assigned by the CDC and CGS following analysis of geologic reports and maps, field investigations, and using information about the locations of active sand and gravel mining operations. Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites, and to incorporate mineral resource management policies into their general plans.

Local Laws, Regulations, and Policies

The Conservation Element of the San Bernardino County General Plan (San Bernardino County 2007, 2017) provides goals and policies related to the conservation, development, and utilization of mineral resources.

3.10.2 Environmental Setting

According to the County land use plan (San Bernardino County 2017), the Project area does not contain any known mineral resources or locally important mineral resource recovery sites. It is in a rural developed area.

3.10.3 Discussion of Impacts

- a) *No Impact.* The Project is not in an area of known mineral resource potential.
- b) *No Impact.* The Project would require the use of certain mineral resources for backfilling trenches and re-paving roads and parking areas, and these resources would come from locally viable sources and would not result in the loss of availability of a valuable mineral resource. There are no mineral resource recovery sites delineated in a land use plan within the project area.

3.11 Noise

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?			X	
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?				X

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?				X

3.11.1 Overview of Noise and Vibration Concepts and Terminology

Noise

In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive, creating the A-weighted decibel (dBA) scale.

Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this chapter.

- Decibel (dB) is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
- A-weighted decibel (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- Maximum sound level (L_{max}) is the maximum sound level measured during a given measurement period.
- Minimum sound level (L_{min}) is the minimum sound level measured during a given measurement period.
- Equivalent sound level (L_{eq}) is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.
- Day-night sound level (L_{dn}) is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels during the period from 10:00 p.m. to 7:00 a.m. (typical sleeping hours). This weighting adjustment reflects the elevated sensitivity of individuals to ambient sound during nighttime hours.

- Community noise equivalent level (CNEL) is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. Table 7 presents approximate noise levels for common noise sources, measured adjacent to the source.

Table 7. Examples of Common Noise Levels

Common Outdoor Activities Noise Level (dBA)	Noise Level (dBA)
Jet flyover at 1,000 feet	110
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Source: Caltrans 2009

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies. The normal frequency range of most ground-borne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second, or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. High-frequency vibrations reduce much more rapidly than do those characterized by low frequencies, so that in a far field zone distant from a source, the vibrations with lower frequency amplitudes tend to dominate. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as

rattling of windows, shaking of loose items, or the motion of building surfaces. In some cases, the vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise.

Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

3.11.2 Regulatory Setting

Federal Laws, Regulations, and Policies





No federal laws, regulations, or policies for construction-related noise and vibration apply to the Project. However, the Federal Transit Administration (FTA) Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA L_{eq} should be used for residential areas (FTA 2006).

For construction vibration effects, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.3 inch per second (in/sec) PPV for engineered concrete and masonry structures and 0.12 in/sec PPV for buildings extremely susceptible to vibration damage (FTA 2006).

State Laws, Regulations, and Policies

California requires each local government entity to implement a noise element as part of its general plan. California Administrative Code, Title 4, presents guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are listed in Table 8.

Table 8. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - Ldn or CNEL (db)						
	50	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Residential - Multi-Family	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Transient Lodging – Motels, Hotels	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Schools, Libraries, Churches, Hospitals, Nursing Homes	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Auditoriums, Concert Halls, Amphitheaters	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Sports Arenas, Outdoor Spectator Sports	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Playgrounds, Neighborhood Parks	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Golf Courses, Riding Stables, Water Recreation, Cemeteries	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Office Buildings, Business Commercial and Professional	██████████	██████████	██████████	██████████	██████████	██████████	██████████
Industrial, Manufacturing, Utilities, Agriculture	██████████	██████████	██████████	██████████	██████████	██████████	██████████
 Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
 Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.						
 Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
 Clearly Unacceptable	New construction or development generally should not be undertaken.						

Local Laws, Regulations and Policies

San Bernardino County Noise Ordinance

The San Bernardino County Noise Ordinance (San Bernardino County Code, General Performance Standards) provides daytime and nighttime noise standards, and identifies exemptions to these noise standards. Construction-related noise between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday would be exempt from the General Performance Standards (San Bernardino County 2007). In addition, any mechanical device, apparatus or equipment related to or connected with emergency activities or emergency work would be exempt from the noise ordinance. The daytime exterior noise standard in residential areas is an hourly L_{eq} of 55 dB. The nighttime residential area exterior noise standard for L_{eq} is 45 dB. (San Bernardino County 2007).

The San Bernardino County General Plan (San Bernardino County 2007) contains a number of goals and policies related to noise, including to protect citizens of San Bernardino County from exposure to excessive noise; to control and abate environmental noise; and to protect existing noise-producing industries from encroachment by noise-sensitive land-uses. The San Bernardino County General Plan establishes detailed noise thresholds based on land use, indoor vs. outdoor, and day vs. night. Construction noise within the County is subject to San Bernardino County Code requirements, specifically in General Performance Standards, as described above.

3.11.3 Environmental Setting

The Project area is in a rural developed setting with some noise sources typical of residential and commercial uses and local roads. Generally, noise levels in the Lucerne Valley are relatively low compared to urbanized areas, with pockets of higher noise such as in the commercial areas. Vehicles using nearby roads and day-to-day residential and commercial activities are the primary noise sources. In addition, periodic noise sources such as construction activities are present in the communities. Residences near the Project area may be sensitive to high noise levels.

The pump station is anticipated to be the only aspect of the Project that generates noise. The pump station will operate up to twenty-four hours a day. The pump station will be located inside an enclosed structure that will insulate any contribution of the pumps to ambient noise levels in the area.

3.11.4 Discussion of Impacts

- a) *Less than Significant Effect.* The Project would not exposure of persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Installation of the pipelines and

construction at other sites would generate temporary noise from construction equipment use. Actual noise levels would vary throughout the day, depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. During construction activity, construction noise is estimated to be approximately 86dB at 50 feet from equipment (Caltrans 2009). Construction activity will generally occur between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. No construction noise is anticipated during non-working hours or when no construction activity is taking place.

In most areas where pipelines will be installed, the nearest receptor (residence) is greater than 200 feet from construction activity, at which distance the construction noise level would be approximately 74dB or less. In some areas, the distance to the nearest receptor will be approximately 50 feet. These areas include the pipeline installation between Joshua Avenue and Anza Trail (north of Arroyo Road), the pressure reducing station site at Palomar Trail, the pressure reducing station site at Chickasaw Trail, and within significant portions of the GAWC service area.

In areas of pipeline construction where receptors are located within approximately 70 feet of construction activity, construction contractors will be instructed to expedite construction in these areas. Contractors shall not be permitted to idle construction equipment in these areas.

In other construction areas, the noise level will be significantly less at the nearest receptor due to the distance from construction activity. At the Well Nos. 3 and 4 site, the nearest receptor is greater than 800 feet away. At the proposed tank site, the nearest receptor is approximately 1,000 feet away. At the jack and bore location near Camp Rock Road and SR-247, the nearest receptor is approximately 1,400 feet away.

To further reduce noise during construction, each internal combustion engine on site, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

The proposed pump station will be located on property owned by JMWC that currently contains two storage tanks and JMWC's office. The total horsepower of the pump station will be approximately 10hp. During normal operation, only one pump (3hp) will operate. The pumps will operate at constant speed, not variable speed, and will generally operate continuously. The pumps will be housed within an enclosed, roofed, blockwall building. The nearest dwelling to the proposed pump station is approximately 275 feet away. The nearest property line that abuts a residential property is approximately 50 feet from the proposed pump station. During normal operation (one pump operating), the noise generated will be 62 dB at 5 feet. However, with building enclosure, the noise level will be approximately 17dB just outside the building. During

very rare occasions when three pumps would operate simultaneously, the pump station would generate noise level of approximately 68dB at 5 feet. Just outside the building, the noise level would be approximately 23dB. Noise generated at the existing pump station near Anza Trail and Arroyo Road would cease.

- b) *Less than Significant Effect.* The Project would not result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.
- c) *Less than Significant Effect.* The Project would not create a permanent increase in ambient noise levels in the Project vicinity above existing levels in all areas except the proposed pump station. Noise from the existing pump station would cease. Noise immediately adjacent to the proposed pump station would increase by 17dB, and would have almost no impact at the adjacent property line.
- d) *Less than Significant Effect.* The Project would create a temporary increase in ambient noise levels in the Project vicinity above existing levels during construction activity, however this impact would be less than significant.
- e) *No Impact.* The Project is not located within an airport land use plan or where such a plan has not been adopted.
- f) *No Impact.* The Project is not in located the vicinity of a private airstrip.

3.12 **Population and Housing**

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?				X
d) Disproportionately affect minority or low-income populations due to human health or environmental effects (NEPA compliance requirement per USDA RUS)?				X

3.12.1 **Regulatory Setting**

No federal or state laws, regulations or policies are applicable to population and housing in relation to the Project.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies related to the provision of adequate housing in the County; promotion of infill developments; and revitalization of neighborhoods through public facility improvements, including water supply.

3.12.2 Environmental Setting

The Project area is in the Lucerne Valley. Most of the Project area encompasses the existing pipeline alignment along public ROWs and GAWC- and JMWC-owned land or easements. The population of these communities is approximately 86 (U.S. Census Bureau 2008-2012). The projected average annual growth rate of GAWC service area (projected to 2045) is 0.5 percent. Average annual income in the community is approximately \$30,142 (U.S. Census Bureau 2008-2012); however, individual household income ranges from less than \$10,000 to more than \$150,000 annually, with approximately 44.7 percent of annual household income below \$25,000 (U.S. Census Bureau 2008-2012).

3.12.3 Discussion of Impacts

- a) *No Impact.* The proposed pipeline would improve existing water service in the current GAWC and JMWC service areas, and would accommodate existing and planned capacity for the area. It is not designed to encourage new, unplanned development. The Project would not induce growth.
- b) *No Impact.* The Project would not displace existing housing.
- c) *No Impact.* The Project would not displace people.
- d) *No Impact.* The Project would not disproportionately affect minority or low-income populations due to human health or environmental effects. The Project is linear and has been primarily designed to follow existing road alignments to minimize the need for new easements and would not displace or disproportionately disturb minority or low-income residents. The Project would improve quality of drinking water available to all customers, regardless of income levels.

3.13 Public Services

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire protection?				X
ii) Police protection?				X
iii) Schools?				X
iv) Parks?				X
v) Other public facilities?				X

3.13.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to public services and the Project.

State Laws, Regulations, and Policies

California Fire Code

The California Fire Code (Title 24 CCR Part 9) establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. Chapter 33 of the code contains the following requirements for fire safety during construction and demolition:

3304.4 Spontaneous ignition. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

3308.1 Program superintendent. The owner shall designate a person to be the fire prevention program superintendent who shall be responsible for the fire prevention program and ensure that it is carried out through completion of the Project. The fire prevention program superintendent shall have the authority to enforce the provisions of this chapter and other provisions as necessary to secure the intent of this chapter. Where guard service is provided, the superintendent shall be responsible for the guard service.

3308.2 Prefire plans. The fire prevention program superintendent shall develop and maintain an approved prefire plan in cooperation with the fire chief. The fire chief and the fire code official shall be notified of changes affecting the utilization of information contained in such prefire plans.

3310.1 Required access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided by either temporary or permanent roads, capable of support vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

3316.1 Conditions of use. Internal-combustion-powered construction equipment shall be used in accordance with all of the following conditions:

1. Equipment shall be located so that exhausts do not discharge against combustible material.
2. Equipment shall not be refueled while in operation.

Fuel for equipment shall be stored in an approved area.

3.13.2 Environmental Setting

Lucerne Valley is served by various public facilities in and near the community. No public facilities are located within the Project area, although an unmanned fire station is located near the Project area in Lucerne Valley.

3.13.3 Discussion of Impacts

- a) *No Impact.* The Project would not affect public services in the local communities, increase the demand for public services, or require construction of new governmental facilities. Improvements to fire protection capabilities of JMWC and GAWC would occur through the addition of storage tanks, pipelines, and hydrants. Hydrants are proposed at the following areas: adjacent to the JMWC office, along the proposed pipeline between Joshua Lane and Anza Trail north of Arroyo Road, near the Chickasaw Trail pressure reducing station site, near the Palomar Trail pressure reducing station site, and within the Gordon Acres service area.

3.14 Recreation

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

3.14.1 Regulatory Setting

Federal and State Laws, Regulations, and Policies

No federal or state laws, regulations, or policies apply to recreation and the Project.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies for protection of open areas and greenbelts for enjoyment by residents; promotion of development and preservation of adequate recreational facilities and parks; and maintenance of trails and parkways.

3.14.2 Environmental Setting

No recreational facilities are located in or near the Project area, although pedestrians and bicyclists may use the local roads for recreation or other travel purposes.

3.14.3 Discussion of Impacts

- a) *No Impact.* The Project would not affect the use of or access to parks or other recreational facilities in the Lucerne Valley area. Local roads affected during construction will be returned to a pre-construction equivalent or better surface condition.
- b) *No Impact.* The Project does not involve construction or expansion of recreational facilities.

3.15 *Transportation/Traffic*

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?			X	
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

3.15.1 **Traffic and Transportation Terminology**

Following are definitions of key traffic and transportation terms used in this section, based on the San Bernardino County General Plan (San Bernardino County 2007) and the San Bernardino County General Plan Final Environmental Impact Report (San Bernardino County 2007), which in turn refer to the Highway Capacity Manual, 4th edition (Transportation Research Board 2000).

Level of Service – A qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Roadway level of service (LOS) is defined according to methodologies presented in the Highway Capacity Manual (Transportation Research Board 2000). Using the Highway Capacity Manual procedures, the quality of traffic operation is graded using six designations, LOS A through F (See Table 9).

Table 9. Level of Service Definitions

Level of Service	Description
A	Primarily free-flow operations at average travel speeds, usually 90 percent of the freeflow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.
B	Reasonably free-flow operations at average travel speeds, usually 70 percent of the freeflow speed for the given street class. The ability to maneuver within the traffic stream is only slightly restricted and control delay at signalized intersections are not significant.
C	Stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.
D	Borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of the free-flow speed.
E	Characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse progression, high signal delay, high volumes, extensive delays at critical intersections and inappropriate signal timing.
F	Characterized by urban street flow at extremely low speeds, typically one-third to one fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes and extensive queuing.

Source: San Bernardino County General Plan Final EIR (2007)

Delay – The additional travel time experienced by a vehicle or traveler that results from the inability to travel at optimal speed, and stops due to congestion or traffic control.

Volume-to-capacity ratio – The ratio of traffic flow rate (usually expressed as vehicles per hour) to capacity for a transportation facility. For example, a volume-to-capacity ratio of 1.00 indicates the roadway facility is operating at its capacity.

Thoroughfares – provide for mobility within the County, carrying through traffic on continuous routes and providing transportation links between major residential, employment, commercial, and retail areas. Access to abutting private property and intersecting local streets is generally restricted.

Local streets – These roads provide direct access to abutting property and connect with other local streets and collectors. Local streets are typically developed as two-lane, undivided roadways and provide access to abutting private property and intersecting streets.

3.15.2 Regulatory Setting

State Laws, Regulations, and Policies

Caltrans manages the state highway system and ramp interchange intersections. The state agency is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance.

Local Regulations and Policies

The Circulation Element of the San Bernardino County General Plan (San Bernardino County 2007) provides the framework for San Bernardino County decisions concerning the countywide transportation system. It also provides for coordination with the cities and unincorporated communities within the county, with the Metropolitan Transportation Plan adopted by the San Bernardino Area Council of Governments, and with State and Federal agencies that fund and manage transportation facilities within the county.

3.15.3 Environmental Setting

Construction schedules will be limited to minimize traffic effects in major areas of concern, such as schools or churches. There are several school bus stops located along the proposed route. In school bus stop areas, construction hours will be limited to avoid effects to student transportation. Coordination with LVUSD's transportation department will take place prior to construction to confirm transportation schedules and holiday breaks.

3.15.4 Discussion of Impacts

- a) *Less than Significant Effect.* The project could potentially temporarily increase traffic in construction areas. Traffic effects to existing roads during construction will be minimal. The proposed pipelines will be constructed at a proper schedule and will use trenchless installation methods in some areas to avoid minimize disturbance to school and transit bus routes, and during traditional church services.

At school bus stops along Sutter Road, no construction work will occur within 30 minutes of pick up/drop off times. Jubilee Mutual Water Company and the construction contractor will coordinate with the Lucerne Valley Unified School District's Transportation Department prior to initiating construction on this area.

Victor Valley Transit Authority's (VVTa) Route 23 travels through some project areas (SR-247, Camp Rock Road, Sutter Road, and East End Road. Jack and bore methods will be used for pipeline installation beneath SR-247, Camp Rock Road, and East End Road, and will not impede traffic in these areas. Improvements near Sutter Road are limited to proposed pressure reducing stations south of Sutter Road along the shoulders of Chickasaw Trail and Palomar Trail. Therefore, impacts to VVTa's Route 23 will be minimal. JMWC will confer with VVTa prior to commencing construction in the vicinity of Route 23 to work to reduce potential impacts bus travel and pick up/drop off of passengers.

Regarding impacts to church services, no churches or houses of worship are present near the project area. No work will generally be allowed on Sundays.

For pipeline crossings of the two major roads in the project area, SR-247 and Camp Rock Road, jack and bore methods will be used. Jack and bore pits and construction equipment will be outside of travelled way. This will minimize impacts to traffic in these areas.

Although the installation of water storage tanks and relocation of the water pump station to the existing Jubilee Mutual Water Company office site will have minimal impact to traffic in the local area, the project may be subject to the Lucerne Valley Local Transportation Fee.

- b) *No Impact.* The Project would not exceed a level of service standard established by the county congestion management agency for designated roads or highways. These LOSs are presented in Table 9 and are either A or B.
- c) *No Impact.* The Project would not affect air traffic patterns and would have no effect on air traffic levels or safety.
- d) *No Impact.* The Project would not involve activities that could increase hazards due to a design feature or incompatible uses.
- e) *Less than Significant Effect.* Construction activities would not result in inadequate emergency access. Construction activities would require temporary lane or road closures and detours around the work areas. Adequate road access would be available in the event of an emergency to allow vehicles to drive around the work area, which would ensure the Project does not prevent emergency access to the residences or conflict with an emergency response or evacuation plan.
- f) *No Impact.* The Project does not include or require on-street or off-street parking, other than temporary construction parking in designated staging areas along the pipeline and other sites.
- g) *No Impact.* The Project would not conflict with alternative transportation policies, programs, or plans for the region. Construction schedule will avoid scheduled public transportation.

3.16 Tribal Cultural Resources

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

3.16.1 Regulatory Setting

State Laws, Regulations, and Policies

CEQA requires that public agencies that finance or approve public or private projects must assess the effects of the project on tribal cultural resources. Tribal cultural resources are defined in Public Resources Code (PRC) 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is (1) listed or determined eligible for listing on the California Register of Historical Resources (CRHR) or a local register, or (2) that are determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Under PRC section 21080.3.1 and 21082.3, the State must consult with tribes traditionally and culturally affiliated with the project area who have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

3.16.2 Environmental Setting

The State Water Board sent project notification letters and invitations to consult under AB 52 to two tribes on the agency list for the project area. The letters were sent certified mail to the San Manuel Band of Mission Indians (SMBMI) and the Colorado River Indian Tribes on May 23, 2018.

The SMBMI accepted consultation in an email dated June 22, 2018 and requested project technical reports. The requested reports were sent and Jessica Mauck responded on August 20, 2018 stating the project area was not in a sensitive area for tribal cultural resources, but requested the SMBMI's standard mitigation measures for inadvertent discovery be included in the environmental document.

3.16.3 Discussion of Impacts

- a) *Less than Significant with Mitigation Incorporated.* Tribal cultural resources listed or eligible for listing on the California Register of Historical Resources were not identified in the Project area (See Section 3.5.2 for additional information on identification efforts). The San Manuel Band of Mission Indians (SMBMI) consulted with the State Water Board for the Project, and noted that although Project area was not in a sensitive area for tribal cultural resources, the SMBMI requested standard mitigation measures for inadvertent discovery be included in the environmental document. In the unlikely event that tribal cultural resources are encountered during Project construction, Mitigation Measure TCR-1 shall be implemented.

Mitigation Measure TCR-1:

In the event that Native American cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior (SOI) Professional Qualification Standards in archaeology shall be hired to assess the find. Work on the other portions of the Project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians and the State Water Board will be contacted if any such find occurs and be provided information and

permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input. The archaeologist shall complete an isolate record for the find and submit this document to the applicant and State Water Board for dissemination to the San Manuel Band of Mission Indians.

If significant Native American historical resources are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to the State Water Board and the San Manuel Band of Mission Indians for review and comment.

a) 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).

b) The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the Project.

3.17 Utilities and Service Systems

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?			X	

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Effect	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

3.17.1 Regulatory Setting

Federal and State Laws, Regulations, and Policies

The Division of Drinking Water (DDW) of the State Water Resources Control Board regulates drinking water standards throughout California, utilizing and augmenting federal standards. Within San Bernardino County, the DDW allows a local primacy agency (San Bernardino County Department of Public Health, Division of Environmental Health Services (DEHS)) to regulate drinking water systems with less than 200 connections. DEHS is the regulatory agency for GAWC. DDW is the regulatory agency of JMWC. Following the proposed consolidation of the two systems, GAWC will relinquish its water supply permit to DEHS. DDW will reissue a water supply permit to Jubilee Mutual Water Company.

AB54 requires mutual water companies in California to submit to the Local Agency Formation Commission a map of its service area. As GAWC and JMWC are located within San Bernardino County, San Bernardino County will require an updated map of JMWC's service area following consolidation of the two water companies.

Local Laws, Regulations, and Policies

The San Bernardino County General Plan (San Bernardino County 2007) contains goals and policies generally to ensure adequate quality and quantity of water is delivered to residents, and that adequate sewer and other services are provided to residents, and encourages waste reduction to decrease the amount of solid waste disposed in landfills.

The draft Lucerne Valley Community Plan addresses water system reliability. Specifically, the project's goals support the draft Community Plan's Community Focus Statement D: Improve Lucerne Valley's water and sewer infrastructure with a focus on the community's sustainability. The consolidation of GAWC and Jubilee Mutual Water Company, along with the associated infrastructure improvements, will result in improved operation, system reliability, delivery capacity, and efficiency.

3.17.2 Environmental Setting

GAWC (PWS No. CA3600297) owns and operates a water production, storage, and distribution system that provides water for 61 total service connections, 43 of which are active metered residential service connections. GAWC provides water to approximately 86 residents. There are no industrial or commercial connections other than the normally unmanned fire station.

GAWC has two active permitted wells, Dido Well and Houston Well. The wells pump directly into the distribution system. Water not consumed by customers is conveyed to the GAWC's two pneumatic storage tanks.

JMWC (PWS No. CA3600139) owns and operates a water production, storage, and distribution system that provides water to approximately 203 connections, all of which are residential except for the JMWC office. There are no other commercial connections or industrial connections. JMWC serves a population of approximately 400 people.

JMWC has three permitted wells, Well Nos. 2, 3, and 4. Well No. 2 is inactive and is proposed to be destroyed as part of this project. Well Nos. 3 and 4 pump directly into the distribution system's northern pressure zone and existing storage tanks. From there, the water is boosted to the upper pressure zone, which does not have a water storage tank.

JMWC's Well Nos. 3 and a replacement well for Well No. 4 will be used to supply the existing water demands of GAWC and JMWC. Due to deteriorating condition and production, the project proposes to replace JMWC's existing Well No. 4 with a new well at the same site with depth and production approximating those of Well No. 4. Destruction of JMWC's Well No. 4 is proposed.

GAWC's Dido Well will be used as a backup if the supply from JMWC to GAWC is interrupted (e.g. pipeline rupture). GAWC's Houston Well will be destroyed as part of the Project.

3.17.3 Discussion of Impacts

- a) *No Impact.* The Project would not involve the treatment of wastewater or require a new water supply. Water supply for the GAWC and JMWC systems would come from existing sources. If water supply is needed for dust control, it could be provided by existing service providers and would not exceed allotted limits.
- b) *Less than Significant Effect.* The Project involves installation of a new water pipelines in existing road ROWs and GAWC- and JMWC-owned property and easements, which would involve temporary construction impacts. The pipelines are proposed to address existing drinking water quality violations. Existing utilities in the roads and other areas would be avoided, to the extent feasible, and if relocation is needed, GAWC will coordinate with the appropriate provider to ensure minimal disruptions to other services.
- c) *No Impact.* No storm drainage facilities would be constructed as part of the Project, and no culverts are expected to be affected.
- d) *No Impact.* Water supply for the GAWC and JMWC systems would come from existing sources (JMWC's Well No. 3 and the replacement of Well No. 4). If water supply is needed for dust control, it would be provided by existing service providers and would not exceed allotted limits.
- e) *No Impact.* The proposed pipelines and storage tanks have been sized to accommodate existing and planned water supply requirements from the GAWC and JMWC water systems. Although water supply demand may increase as new development increases in the community, the Project is not designed to accommodate unplanned growth and would not distribute water beyond its capacity. The pipelines and storage tanks would

improve the service capability of the combined GAWC/JMWC system and ensure its water distribution system meets the pressure, fire flow, and redundancy requirements necessary for operation.

The project area is not currently served by a community wastewater collection, treatment or disposal system. Wastewater is treated and disposed of at septic tanks and leach lines on individual lots. Wastewater generation rates and disposal methods will not change as a result of the Project.

- f) *Less than Significant Effect.* Solid waste generated during construction would be properly disposed or recycled in a nearby landfill or disposal facility with capacity to receive the waste. Some materials removed during construction and demolition (e.g. concrete, steel, wood) will be diverted to a certified recycling center.
- g) *No Impact.* Any hazardous materials used during construction would be properly disposed in accordance with California Department of Resource Recycling and Recovery. Specifications for work at GAWC's Dido Well and Houston Well require recycling of concrete, steel, wood, and other material removed from the sites. In most other Project locations, existing infrastructure will be abandoned in place.

3.18 *Mandatory Findings of Significance*

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

3.18.1 Discussion

- a) *Less than Significant With Mitigation Incorporated.* The biological and cultural studies, including the focused studies (Applied EarthWorks, Inc. 2018a, b; RCA 2018 a,b,c) did not identify any rare or endangered plant or animal or important examples of the major periods of California history or prehistory present at the Project sites. The Project does not have the potential to significantly affect cultural resources or degrade the quality of the environment. Listed plant and animal species are found in other nearby areas and have a low potential to occur in the Project area. Mitigation measures shall be implemented to reduce the potential impacts to these species to less than significant.
- b) *No Impact.* The Project is not expected to have a cumulatively considerable impact to past, present, or future projects. Proposed projects that occur in the Project area are either scheduled to be complete before the start of the proposed Project or begin after the proposed Project is completed. Caltrans is currently conducting road improvements (resurfacing and shoulder improvements) along SR-247. JMWC's construction schedule coordination with Caltrans will allow Caltrans to complete its project near the intersection of SR-247 and Camp Rock Road (EA# 1E560) prior to commencing construction of the water system improvements in that area. San Bernardino County Public Works plans to resurface Camp Rock Road within the next few years. The proposed crossing of Camp Rock Road will be by jack and bore, and should not therefore be impacted a no-cut moratorium.
- c) *Less than Significant Effect.* The construction phase of the Project would result in several temporary effects to human beings including temporary increases in air pollutants and noise. No long-term negative impacts are anticipated.

4 Mitigation Monitoring and Reporting Program

4.1 Purpose

The Gordon Acres Water Company has prepared an Initial Study and Mitigated Negative Declaration (IS/MND) for the proposed Jubilee MWC/Gordon Acres Consolidation Project (Project). The proposed Project consists of constructing water storage tanks, pipelines, wells, conduits, pressure reducing stations, hydrants, and appurtenances; destroying two existing wells; abandoning and removing pipelines and related infrastructure; and permitting and administrative activities to advance consolidation of two community water systems in this portion of Lucerne Valley, San Bernardino County, California.

The State Water Resources Control Board, as the Lead Agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this Mitigation Monitoring and Reporting Program (MMRP). Jubilee Mutual Water Company will designate a consultant to manage the MMRP. Duties of the consultant will include ensuring the water company, that construction contractors are aware of the mitigation measure noted below, retains the qualified personnel, i.e. archeologist, and that the State Water Resources Control Board receives the reporting outlined in the mitigation measure.

4.2 Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects under an MND. The reporting and monitoring plans must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of project approval.

4.3 Format of This Plan

The MMRP describes the construction phase measure included in the proposed Project and identified in the IS/MND. This MMRP also includes a summary statement of the impact discussed in the IS/MND to correspond with the mitigation measure. The mitigation measure is followed by an implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring implementation of the measure.

Implementation of mitigation measure is ultimately the responsibility of the CEQA Lead Agency; during construction, the delegated responsibility is shared by the Jubilee Mutual Water Company and construction contractors. The mitigation measure in this plan contains

a “Verified By” signature line, which will be signed by Jubilee when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

4.4 Impacts and Associated Mitigation Measures

Mitigation Measure TCR-1:

In the event that Native American cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior (SOI) Professional Qualification Standards in archaeology shall be hired to assess the find. Work on the other portions of the Project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians and the State Water Board will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input. The archaeologist shall complete an isolate record for the find and submit this document to the applicant and State Water Board for dissemination to the San Manuel Band of Mission Indians.

If significant Native American historical resources are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to the State Water Board and the San Manuel Band of Mission Indians for review and comment.

- a) 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).
- b) The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the Project.

Implementation:

Prior to initiating construction activity, Jubilee will retain a qualified archeologist to assist when potentially significant Native-American historical resources are discovered during earthmoving and excavation activities. The archeologist shall be prepared to respond immediately to the construction site when potentially significant Native American historical resources are discovered.

Should potentially significant Native American historical resources be discovered, the discovering party shall immediately notify the Project's archeologist. All construction activity within a 60-foot buffer shall cease until receiving approval to resume work by the archeologist.

Timing: During construction activities that involve excavation or earth moving.

Effectiveness Criteria: The archeologist's report(s) on potentially significant Native American Historical Resources, Reports shall include any related correspondence or documentation received from a Native American Tribe or public agency. Reports shall be maintained in the project file.

Monitoring: Jubilee will prepare and keep on file documentation verifying the implementation of the above-referenced measure. These files shall be provided to the State Water Resources Control Board upon request and following completion of construction.

Verified By:

Jubilee Mutual Water Company

Project Manager

Date:

Mitigation Measure BR-1:

If vegetation removal or ground disturbance activities occur during the nesting season (January 1st to August 31st), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than two weeks prior to the initiation of construction. If construction activities are delayed or suspended for more than two weeks after the preconstruction survey, the site shall be resurveyed.

If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged, as determined through additional monitoring by a qualified biologist. Further, to prevent nest abandonment and mortality of chicks and eggs, no construction activities shall occur within 300 feet of an active nest unless a smaller buffer zone is authorized by a qualified biologist in consultation with the CDFW and the USFWS (the size of the construction buffer zone may vary depending on the species of nesting birds present). A qualified biologist shall delineate the buffer zone with construction tape or pin flags that shall remain in place until the young have fledged, as determined through additional monitoring by a qualified biologist.

The qualified biologist shall monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. If any active nests associated with migratory bird species or raptors are encountered during Project construction, construction activities within the 300-foot zone will be delayed until nesting activities have ceased as determined by a focused survey to be performed by the qualified biologist. Guidance from CDFW shall be requested if the nestlings within an active nest appear disturbed. The qualified biologist shall have the authority to stop any work determined to be adversely affecting the nesting activity. The qualified biologist shall report any "take" of active nests to CDFW.

Implementation:

Prior to initiating construction activity, Jubilee will retain a qualified biologist to perform pre-construction surveys for burrowing owls and nesting birds protected under the Migratory Bird Treaty Act and Section 3503 of the California Fish and Wildlife Code. A qualified biologist shall monitor nests during construction.

Should listed species be encountered, authorization from the USFWS and CDFW shall be obtained.

Timing:

Within two weeks of the start of construction activity and during construction activity.

Effectiveness Criteria: The biologist's report(s) on pre-construction surveys. Reports shall be maintained in the project file.

Monitoring: Jubilee will prepare and keep on file documentation verifying the implementation of the above-referenced measure. These files shall be provided to the State Water Resources Control Board upon request and following completion of construction.

Verified By:

Jubilee Mutual Water Company

Project Manager

Date:

Mitigation Measure BR-2:

Pre-construction surveys for desert tortoise shall be conducted by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas within the potential footprint of disturbance for the Project, as well as a reasonable buffer around these areas. Should desert tortoise be encountered, CDFW and USFWS shall be contacted to discuss additional mitigation measures which may be required.

Implementation: Prior to initiating construction activity, Jubilee will retain a qualified biologist to perform pre-construction surveys for desert tortoise.

Should listed species be encountered, authorization from the USFWS and CDFW shall be obtained.

Timing: Within two weeks of the start of construction activity.

Effectiveness Criteria: The biologist's report(s) on pre-construction surveys. Reports shall be maintained in the project file.

Monitoring: Jubilee will prepare and keep on file documentation verifying the implementation of the above-referenced measure. These files shall be provided to the State Water Resources Control Board upon request and following completion of construction.

Verified By:

Jubilee Mutual Water Company

Project Manager

Date:

Mitigation Measure BR-3:

- Clearing of the Project area including blading of new access or work areas shall be minimized to the extent possible. Disturbance to shrubs shall be avoided if possible. If shrubs cannot be avoided during equipment operation or vehicle use, wherever possible they should be crushed rather than excavated or bladed and removed.
- Project features that might trap or entangle desert tortoises, such as open trenches, pits, open pipes, etc shall be covered at the end of each work day or modified to prevent entrapment through the installation of escape ramps or sloped at the ends at a 3:1 ratio.
- After completion of the Project, trenches, pits, and other features in which tortoises could be entrapped or entangled, shall be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoises.
- Unleashed dogs shall be prohibited in Project areas.
- Temporary fencing, such as chicken wire, snow fencing, chain link, and other suitable materials shall be used in designated areas to reduce encounters with tortoises.
- In potential desert tortoise habitat project-related vehicles shall not exceed 15 miles per hour on unpaved roads.

Implementation: The construction contractor shall be responsible for implementing these measures.

Timing: During construction activity.

Effectiveness Criteria: The construction supervisor, or his designee, shall maintain a checklist in the project file that verifies mitigation steps taken each day to avoid impact to any listed species.

Monitoring: Jubilee will prepare and keep on file documentation verifying the implementation of the above-referenced measure. These files shall be provided to the State Water Resources Control Board upon request and following completion of construction.

Verified By:

Jubilee Mutual Water Company

Project Manager

Date:

Mitigation Measure BR-4:

Pre-construction surveys for Parish's daisy shall be conducted concurrent with pre-construction surveys for the desert tortoise (BR-2) by a qualified biologist no more than two weeks prior to the commencement of Project-related ground disturbance. Pre-construction surveys shall encompass all areas of the Project, as well as a reasonable buffer around these areas even if these areas are not within the potential footprint of the desert tortoise (BR-2). Should Parish's daisy be encountered, proposed facilities will be examined for reasonable rerouting or relocation. If facilities cannot reasonably be rerouted or relocated, CDFW and USFWS shall be contacted to discuss possible species relocation and additional mitigation measures which may be required.

Implementation: Prior to initiating construction activity, Jubilee will retain a qualified biologist to perform pre-construction surveys for Parish's daisy.

Should listed species be encountered, proposed facilities will be examined for reasonable rerouting or relocation by a qualified biologist. If facilities cannot reasonably be rerouted or relocated, CDFW and USFWS shall be contacted to discuss possible species relocation and additional mitigation measures which may be required.

Timing: Within two weeks of the start of construction activity.

Effectiveness Criteria: The biologist's report(s) on pre-construction surveys. Reports shall be maintained in the project file.

Monitoring: Jubilee will prepare and keep on file documentation verifying the implementation of the above-referenced measure. These files shall be provided to the State Water Resources Control Board upon request and following completion of construction.

Verified By:

Jubilee Mutual Water Company

Project Manager

Date:

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