FINAL Initial Study/Mitigated Negative Declaration

El Adobe Property Owner's Association, Inc. Water System Improvement Project

Prepared for:

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

State Water Resources Control Board
Division of Financial Assistance

AECOM

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Division of Financial Assistance
1001 I Street, 16th Floor
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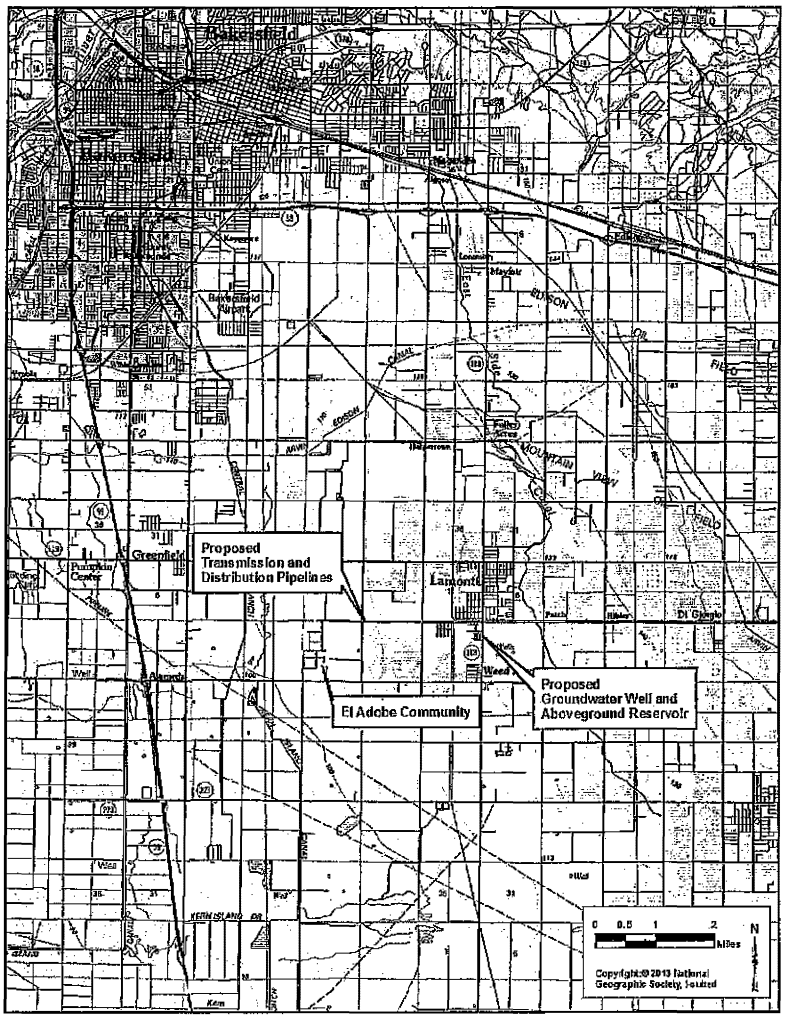
July 2017

MITIGATED NEGATIVE DECLARATION

PROJECT TITLE: El Adobe Property Owner's Association, Inc. Water System Improvement Project

LEAD AGENCY: State Water Resources Control Board (SWRCB), Division of Financial Assistance (DFA)

PROJECT LOCATION: The project site is located within unincorporated Kern County, approximately 2 miles west of the community of Lamont, and 8 miles southeast of the central section of the City of Bakersfield. The pipeline would be constructed within the community of El Adobe and along Di Giorgio Road and Field Street. El Adobe is located southeast of the intersection of Di Giorgio Road and Adobe Road and comprises an area of approximately 200 acres with 81 single family residences on approximately 80 parcels. It is at an elevation of approximately 340 feet, surrounded on all sides by intensive agriculture.



PROJECT DESCRIPTION: The El Adobe Property Owner's Association, Inc. (EAPOA) water system currently exceeds the maximum contaminant level for arsenic. To correct this deficiency, EAPOA applied for and was awarded funding under Proposition 84 from the SWRCB DFA for planning purposes (engineering studies and design). The alternative selected based on the engineering studies is to consolidate the EAPOA water system with the Lamont Public Utility District (LPUD).

The Proposed Project includes installation of a new groundwater well (referred hereafter as Well #20), aboveground reservoir, booster pump station, and ancillary equipment, which would be located east of Field Street and west of Weedpatch Highway (State Route 184), and south of Dunsmere Street and north of Boozer Avenue.

A new water transmission pipeline, not to exceed 12 inches in diameter would connect the booster pump station at Well #20 to El Adobe. The pipeline would be approximately 3 miles in length. The pipeline would proceed north along Field Street and west along Di Giorgio Road, where it would connect with the new distribution system

within El Adobe at the intersection of Di Giorgio Road and Alderwood Street. The distribution system within El Adobe would consist of approximately 2.75 miles of 4-, 6-, and 8-inch pipeline.

It is estimated that construction of the Proposed Project would last approximately 12 months. Per the terms of the consolidation agreement, EAPOA would construct the Proposed Project and deed it to LPUD after construction is complete.

FINDINGS: An initial study/proposed mitigated negative declaration (IS/MND) has been prepared to assess the Proposed Project's potential impacts on the physical environment and the significance of those impacts. Based on the analysis conducted in the IS, it is determined that implementing the Proposed Project would not have any significant adverse effects on the environment after adoption and implementation of mitigation measures. This conclusion is supported by the following findings:

1. The Proposed Project would not conflict with existing surrounding land uses.

2. The Proposed Project would not violate any air quality standard, or substantially contribute to an existing or projected air quality violation.

3. The Proposed Project may result in potentially significant impacts to sensitive species; however, implementation of Mitigation Measures BIO-1 through BIO-14, below, would reduce all of these impacts to below a level of significance.

4. The Proposed Project may result in potentially significant impacts to unknown cultural resources; however, implementation of Mitigation Measures CR-1 through CR-3, below, would reduce these impacts to below a level of significance.

5. The Proposed Project may result in potentially significant impacts to hydrology and water quality; however, the implementation of Mitigation Measures HWQ-1, below, would reduce these impacts to below a level of significance.

6. The Proposed Project would comply with National Pollutant Discharge Elimination System (NPDES) guidelines for construction storm water runoff.

7. The Proposed Project would not result in significant impacts to aesthetics, agriculture resources, air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

MITIGATION MEASURES: The following mitigation measures would be implemented as part of the Proposed Project to avoid, minimize, rectify, reduce or eliminate, or compensate for potentially significant environmental impacts of the Propose Project to less-than-significant levels:

> **Mitigation Measure BIO-1:** Prior to the start of work activities associated with the Proposed Project, the EAPOA or its representative shall submit to the California Department of Fish and Wildlife (CDFW) in writing the names, qualifications, and contact information of all proposed qualified wildlife biologists for the Proposed Project. Advanced written approval for each individual shall be obtained prior to the commencement of any pre-construction surveys for San Joaquin Kit fox or Tipton kangaroo rat. The name, qualifications, and contact information for the proposed Tipton kangaroo rat biologist shall be

submitted to the CDFW for approval no less than 30 days prior to conducting any live trapping or salvage activities.

Timing: Before construction

Responsibility: EAPOA or its representative

Mitigation Measure BIO-2: Prior to construction, a CDFW-approved qualified biologist shall conduct a training session for all construction personnel focused on the protection and conservation of sensitive species that may be encountered in the Project area, the laws and codes that regulate these species, and the protection measures that must be followed to minimize impacts.

Timing: Before construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-3: A CDFW-approved qualified biologist shall conduct a comprehensive pre-construction survey for special-status plant and wildlife species within the Proposed Project footprint and buffer no more than 30 days prior to the start of construction. In the event that a special-status or listed species is observed, the appropriate agency or agencies shall be contacted for consultation and to determine an approved course of action.

Timing: Before construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-4: Impacts to sensitive plant species shall be avoided to the extent feasible; where sensitive plants occur within the work area or buffer, a no-disturbance buffer of no less than 5 feet from the edge of the root zone shall be established to protect the individuals from direct impacts. If sensitive plant species are observed within the disturbance footprint, the appropriate agency or agencies will be contacted to determine an appropriate course of action.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-5: If Tipton kangaroo rats or San Joaquin kit foxes or their sign are detected within the Proposed Project footprint or buffer during pre-construction surveys or any Proposed Project-related activities, a qualified biological monitor shall be on-site during all Proposed Project-related ground-disturbing activities, including vegetation removal.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-6: All trenches that are to be left open overnight shall be either securely covered or have wildlife escape ramps installed during non-work hours to prevent entrapment of common and special-status wildlife species.

- All steep-walled pipeline and utility trenches shall be inspected in the mornings to prevent entrapment of common and special-status wildlife species. All trenches shall be inspected prior

to back-filling and a qualified biologist shall remove any entrapped wildlife or allow animals to escape voluntarily prior to resuming construction.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-7. Western burrowing owl protection. No more than 30 days prior to construction, a qualified biologist shall conduct pre-construction clearance surveys within all potentially suitable habitats for western burrowing owls within the work area and a minimum 50-foot buffer. Surveys shall focus on identifying any western burrowing owls, active or inactive western burrowing owl burrows, and their sign, including pellets, white wash, prey remains, tracks, feathers and other signs of occurrence.

- If occupied, non-breeding burrows are observed, a no-disturbance buffer of no less than 160 feet shall be established around the burrow. If a burrow is located within 160 feet of the work area, the CDFW should be consulted to determine an appropriate course of action.
- If occupied, breeding burrows are observed, a no-disturbance buffer of no less than 300 feet shall be established around the burrow. A qualified biologist shall monitor the burrow until it has been determined that the nest has failed or the young have fledged. If a breeding burrow is located within 300 feet of the work area, the CDFW shall be consulted to determine an appropriate course of action.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-8: San Joaquin kit fox protection. No more than 30 days prior to the start of construction, a qualified biologist shall conduct pre-construction clearance surveys of the work area and a 50-foot buffer for signs of San Joaquin kit fox, including active and inactive natal and non-natal dens, scat, prey remains, and tracks. All suitable denning locations shall be investigated for use. Any observation of an active den shall result in consultation with the U.S. Fish and Wildlife Service (USFWS) and CDFW to determine if modifications to the Proposed Project or further mitigation measures may be necessary.

- If active natal or non-natal San Joaquin kit fox dens are found within the work area or buffer during construction activities, all work shall immediately stop and the USFWS, CDFW, and the City of Bakersfield shall be notified. A minimum buffer of 100 feet shall be established around active, non-natal dens. Natal dens shall be protected with a minimum 200-foot buffer; natal dens that contain pups shall be protected by a minimum 500-foot buffer. A qualified biologist shall monitor any active dens during work activities.

  A minimum of 4 consecutive days of monitoring shall be required to determine that a den is unoccupied. Unoccupied dens should be conserved whenever possible, but may be covered in a secure manner to prevent access by San Joaquin kit foxes during ongoing work activities. Dens covered in this manner shall be uncovered upon completion of the proposed work to allow use by San Joaquin kit foxes.

- If a San Joaquin kit fox is encountered during Proposed Project activities, all work that could result in a direct injury, disturbance, or harassment shall immediately stop and the Project Biologist(s) shall be notified.

- Where San Joaquin kit foxes have the potential to occur, all heavy equipment and vehicles left on-site overnight will be inspected at the beginning of each work day to verify that no individuals have taken shelter under the equipment. If a San Joaquin kit fox is observed, the Project Biologist(s) shall be notified and the animal shall be observed from a distance until it has moved out of the area of its own accord.

- Where pre-construction surveys indicate presence of San Joaquin kit fox, exclusionary fencing (silt or construction fencing) shall be installed around work areas to prevent individuals from entering the work area.

  Timing: Before and during construction

  Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-9: Tipton kangaroo rat protection. No more than 30 days prior to construction, a CDFW-approved Tipton kangaroo rat biologist shall conduct surveys within the work area and buffer to identify all small mammal burrows that exhibit evidence of utilization by kangaroo rats, including the presence of tail drags, seed caches, runways, and other kangaroo rat sign.

- If kangaroo rat burrows are identified, the CDFW-approved biologist will conduct a live-trap survey following the methods provided in the USFWS-approved Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats (USFWS 2013) to definitively identify species of kangaroo rats present. A minimum of 5 consecutive nights of live small mammal trapping shall be conducted, with high density of traps focused around kangaroo rat burrows, runways, dust baths, and other sign of kangaroo rats. If Tipton kangaroo rats are identified during surveys, the appropriate agencies (CDFW, USFWS) shall be contacted, and minimization measures provided in the Metropolitan Bakersfield Habitat Conservation Plan Incidental Take Permit shall be followed.

- The CDFW-approved Tipton kangaroo rat biologist shall maintain a record of all Tipton kangaroo rats handled, and submit the documentation to the CDFW. Information shall include the location and time of capture, sex, approximate age, weight, general condition and health, and ambient temperature when handled for each individual.

- If any Tipton kangaroo rats are observed during work activities, all work in the vicinity shall immediately stop and the appropriate agencies (CDFW, USFWS) shall be contacted for consultation. If uninvestigated kangaroo rat burrows are observed during construction, work in the vicinity shall stop and appropriate live-trap surveys shall be conducted to confirm the species.

  Timing: Before and during construction

  Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-10: Native nesting birds protection. If construction activities occur during avian breeding season (February 1 through September 15), a qualified biologist shall conduct a nesting bird

survey of the Proposed Project footprint and a minimum of a 300-foot adjacent buffer no more than 7 days prior to the start of construction or vegetation clearing activities.

- If active nests of native species are identified within the work area or buffer, a no-disturbance buffer shall be established, measuring no less than 500 feet for nesting raptors and 300 feet for all other species. A qualified biologist shall monitor the nest for progress until such time as the nest has been determined to have failed or successfully fledged all young.
- All vegetation clearing activities within suitable nesting habitat shall be conducted outside the breeding bird season to the extent feasible. Where vegetation clearing must be conducted within the breeding bird season, these activities shall be preceded by a nesting bird survey conducted by a qualified biologist no more than 7 days prior to the start of vegetation clearing.
- Vegetation clearing activities during avian breeding season within suitable nesting bird habitat shall be monitored by a qualified biologist.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-11: All construction equipment, staging areas, materials and personnel shall be restricted to existing roadways and road shoulders, designated work areas, or previously disturbed off-site areas that are not habitat for special-status species.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-12: All trash and food items shall be contained and removed from the site regularly to prevent attraction of predators, such as dogs, coyotes, or San Joaquin kit fox.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-13: Any spills of petroleum products or other chemicals, which may represent a hazard to wildlife, shall be cleaned up promptly and in accordance with appropriate laws and regulations.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-14: All pipes, culverts, or similar structures on-site with a diameter of 2 to 24 inches shall be inspected for special-status species prior to moving or welding. Openings shall be capped or otherwise covered if sections cannot be inspected to prevent the entry and potential loss of wildlife. If a special-status species is discovered inside a pipe, the animal shall be safely removed by a qualified biologist. The pipe segment shall not be moved until the animal has escaped, or the pipe segment shall be moved a single time out of the path of construction. Alternatively, stored pipe may be kept capped at all times until used during construction.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure CR-1: Prior to the start of any ground disturbance, all project construction personnel shall participate in a Cultural Resource Sensitivity Training (CRST) provided by the Tejon Indian Tribe. The training will provide a protocol for construction personnel to follow in the event that Tribal Cultural Resources and/or human remains are unearthed during construction of the project, ensuring the project remains in compliance with applicable environmental regulations concerning the inadvertent discovery of cultural resources and/or human remains.

Timing: Prior to construction

Responsibility: EAPOA

Mitigation Measure CR-2: If archaeological features or materials are unearthed during any phase of Proposed Project activities, all work in the immediate vicinity of the find shall halt until Recipient has contacted the State and the significance of the resource has been evaluated. Any mitigation measures that may be deemed necessary must have the approval of the State, and shall be implemented, pursuant to the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, 48 CFR 44716, by a qualified archaeologist representing the Recipient prior to the resumption of construction activities.

Timing: During construction

Responsibility: EAPOA and its contractors

Mitigation Measure CR-3: Any substantial and deep excavations within the Proposed Project area should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding construction. Sediment samples from the Proposed Project area should also be collected and processed to determine the small fossil potential of the site. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. If human remains are exposed by activity related to the Project, the Recipient must comply with California State Health and Safety Code, Section 7050.5, which states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code, Section 5097.98.

Timing: During construction

Responsibility: EAPOA and its contractors

Mitigation Measure HWQ-1: The Proposed Project construction contractor shall comply with the measures contained in the SWPPP to avoid and/or minimize erosion impacts on exposed soil during construction, as well as to control pollutants during construction.

Timing: During construction

Responsibility: EAPOA and its construction contractor

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INITIAL STUDY

EAPOA WATER SYSTEM IMPROVEMENT PROJECT

1. Project Title:	El Adobe Property Owner's Association, Inc. Water System Improvement 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 and Phone Number:	Anais Castillo (916) 319-0180
4. Project Location:	The project site is located within an unincorporated area of Kern County, approximately 2 miles west of the community of Lamont, and approximately 8 miles southeast of the City of Bakersfield. The water transmission pipeline would be constructed within existing rights-of-way and public utility easements along Field Street, Di Giorgio Road, and the distribution pipeline would be constructed within the El Adobe Property Owner's Association, Inc. community (Alderwood Street, Ann Street, Adobe Road, Colene Street, Glen Court, Manzanita Avenue, Hickory Avenue, Brent Avenue, Madrona Avenue, and Buttonwood Avenue (see Section 2.0, Project Description).
5. Project Sponsor Name and Address:	Same as Lead Agency.
6. General Plan Designation:	R-IA (Intensive Agriculture), ER (Estate Residential), RR (Rural Residential), LMR (Low Medium Density Residential), SR (Suburban Residential)
7. Zoning:	Estate Residential, Low and Medium Density Residential, Mobilehome Park, Exclusive Agriculture, Medium Industrial, General Commercial, Highway Commercial, Open.
8. Project Description:	See Section 2.0.
9. Surrounding Land Uses and Setting:	Agriculture, residential, and vacant land. See Section 2.0.
10 Other Agencies Requiring Approval:	State Water Resources Control Board (Notice of Intent); Kern County Department of Public Works (Encroachment Permit).

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADD	average day demand
AQAP	air quality attainment plans
BMP	Best Management Practice
BPS	Best Performance Standards
BSK	BSK Associates
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS	California Historical Resource Information System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2-equivalents
CRST	Cultural Resources Sensitivity Training
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
CalEEMod	California Emissions Estimator Model
DFA	Division of Financial Assistance
EAPOA	El Adobe Property Owner's Association, Inc.
EPA	Environmental Protection Agency
GCWD	Greenfield County Water District
GHG	greenhouse gases
gpd	gallons per day
gpm	gallons per minute
GWP	global warming potential
hp	Horsepower
IPCC	Intergovernmental Panel on Climate Change
ITP	Incidental Take Permit
L_{dn}	average dBA noise level over a 24-hour period
L_{eq}	equivalent continuous noise levels
LPUD	Lamont Public Utility District
MBHCP	Metropolitan Bakersfield Habitat Conservation Plan
MDD	maximum day demand
MT	metric tons
N_2O	Nitrous oxide
NAHC	Native American Heritage Commission

NHMLA	Natural History Museum of Los Angeles
NO_2	nitrogen dioxide
NOx	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
PHD	peak hour demand
PM	particulate matter
PM_{10}	PM $\leq$ 10 micrometers in diameter
$PM_{2.5}$	PM $\leq$ 2.5 micrometers in diameter
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air quality Management District
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLOAPCD	San Luis Obispo Air Pollution Control District
SO_2	sulfur dioxide
SOx	sulfur oxides
SR	State Route
SRF	Safe Drinking Water State Revolving Fund
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VDE	visible dust emissions
WRCC	Western Regional Climate Center
°F	degrees Fahrenheit

1 INTRODUCTION

AECOM has prepared this initial study/proposed mitigated negative declaration (IS/MND) for the State Water Resources Control Board (SWRCB) in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines to address the environmental consequences of the proposed El Adobe Property Owner's Association, Inc. (EAPOA) Water System Improvement Project (Proposed Project). The SWRCB is the lead agency under CEQA.

To satisfy CEQA requirements, this document includes:

- a notice of availability and intent to adopt an IS/MND for the Proposed Project,
- a proposed MND, and
- an IS.

After the required public review of this document is complete, the SWRCB would consider adopting the proposed MND and a mitigation monitoring and reporting program, and would decide whether to proceed with the Proposed Project.

1.1 PURPOSE OF THE INITIAL STUDY

This document is an IS, prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The purpose of this IS is to (1) determine whether project implementation would result in potentially significant or significant effects on the environment; and (2) incorporate Environmental Commitments into the project design and propose feasible mitigation measures, as necessary, to eliminate the project's potentially significant or significant project effects or reduce them to a less-than-significant level.

An IS presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS is neither intended nor required to include the level of detail provided in an environmental impact report (EIR).

CEQA requires that all State and local government agencies consider the environmental consequences of projects that they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance (State CEQA Guidelines Section 15367). The SWRCB Division of Financial Assistance (DFA) is the funding agency overseeing the CEQA process, and therefore is the CEQA lead agency for this IS on behalf of the EAPOA. The EAPOA has principal responsibility for carrying out the Proposed Project,

AECOM has prepared this IS for the SWRCB to evaluate the potential environmental effects of the proposed project and has incorporated mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this project.

1.2 SUMMARY OF FINDINGS

Section 3.0, Environmental Checklist, contains the analysis and discussion of potential environmental impacts of the Proposed Project. Based on the issues evaluated in that section, the SWRCB has determined that the Proposed Project would not result in any significant impacts after mitigation measures are implemented.

The Proposed Project would result in no impacts related to the following issue areas:

- Agriculture and Forest Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Mandatory Findings of Significance

The proposed project would result in less-than-significant impacts related to the following issue areas:

- Aesthetics
- Air Quality
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Noise
- Transportation and traffic
- Utilities and Service Systems

The proposed project would result in less-than-significant impacts after mitigation related to the following issue areas:

- Biological Resources
- Cultural Resources
- Hydrology and Water Quality

1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

Table of Contents: This section outlines the organization of the IS.

Acronyms and Abbreviations: This section is a list of the acronyms and other abbreviations used in the IS.

Section 1.0, Introduction: This section briefly summarizes the Proposed Project, describes the purpose of the IS, presents a summary of the findings, and specifies how the document is organized.

Section 2.0, Project Description: This section discusses the purpose of and need for the Proposed Project, general project background, and project elements, including construction and operations and maintenance activities.

Section 3.0, Environmental Checklist: This section presents an analysis of environmental issues identified in the CEQA environmental checklist and determines whether the Proposed Project would result in a beneficial impact, no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, potentially significant impact, or significant impact on the environment in each resource issue area. If any impacts are determined to be potentially significant or significant after mitigation, an EIR would be required. For the Proposed Project, however, mitigation measures have been incorporated as needed to reduce all potentially significant and significant impacts to a less-than-significant level.

Section 4.0, References: This section lists the references used in preparation of this IS.

Section 5.0, Report Preparers: This section identifies the preparers of this document.

2 PROJECT DESCRIPTION

This chapter describes the Proposed Project. The project location and background are described along with project objectives, project characteristics, construction activities, project operations, and discretionary actions and approvals that may be required.

2.1 INTRODUCTION

The EAPOA proposes to install a new water delivery system that would supply potable drinking water from the Lamont Public Utility District (LPUD) to residents of El Adobe (Proposed Project). The LPUD Board of Directors approved the consolidation agreement with EAPOA on January 27, 2014.

The Preliminary Engineering Report (AECOM 2013) and Addendum to Preliminary Engineer Report (AECOM 2015) describe historical water usage and anticipated future demand in El Adobe and LUPD. These two documents also contain additional details regarding the design criteria and selection of the preferred alternative for the Proposed Project (Appendix A).

2.2 PURPOSE AND NEED FOR PROJECT

EAPOA is a domestic non-profit group that provides operation and maintenance of the private streets, street lights, and domestic water system to residents of its community, hereafter referred to as El Adobe. El Adobe has an estimated population of 250 (AECOM 2013) and is located within the western half of Section 10, Township 31 South, Range 28 East, in the unincorporated area of Kern County, California. It is approximately 2 miles west of the unincorporated community of Lamont, and approximately 8 miles southeast of the City of Bakersfield.

The EAPOA applied for and was granted funding under California Proposition 84 to address and resolve issues associated with its drinking water quality. Under the Proposed Project, funding from this grant would be used to complete the engineering design to install a new water production well and associated water transmission and distribution pipelines that would enable the annexation of El Adobe to the LPUD and provide residents of El Adobe with suitable and safe potable water. The Safe Drinking Water State Revolving Fund (SRF) will fund construction of the Proposed Project.

2.3 PROJECT LOCATION

The Proposed Project is located in the Lamont U.S. Geological Survey (USGS) 7.5-minute quadrangle, within Section 10, Township 31 South, Range 28 East. Portions of the Proposed Project, including the El Adobe community, are located in unincorporated Kern County, approximately 8 miles southeast of the central section of the City of Bakersfield, California. The proposed groundwater production well and reservoir storage site is located within the boundaries of the census-designated area of Lamont, California. Refer to Section 2.3. for a detailed description of the project location.

The potable water transmission and distribution pipelines would be constructed within existing rights-of-way and easements along Di Giorgio Road and Field Street, and within the community of El Adobe. Figure 1 presents an

overview of the Proposed Project area. El Adobe, located southeast of the intersection of Di Giorgio Road and Adobe Road, comprises an area of approximately 200 acres, and contains 81 single family residences on approximately 80 parcels (Figure 2). El Adobe is at an elevation of approximately 340 feet, and surrounded on all sides by intensive agriculture. Surrounding properties are primarily in agricultural use and owned by public and private entities.

2.4 PROJECT COMPONENTS

The EAPOA water system currently exceeds the maximum contaminant level for arsenic in drinking water. To correct this deficiency, EAPOA applied for and was awarded funding under Proposition 84 from the SWRCB DFA for planning purposes (engineering studies and design). The alternative selected based on the engineering studies is to consolidate the EAPOA water system with LPUD; the consolidation agreement was signed on January 25, 2016. The SRF will fund construction of the Proposed Project.

The Proposed Project includes a new groundwater well (referred hereafter as Well #20), aboveground reservoir, booster pump station, and associated equipment, which would be located on an approximately 3-acre plot of land bounded to the north by Dunnsmere Street, east by Weedpatch Highway (State Route [SR] 184), south by Hickory Lane, and west by Field Street (Figure 3).

A new water transmission pipeline, which would not exceed 12 inches in diameter and is approximately 3 miles in length, would connect the booster pump station at Well #20 to El Adobe. The pipeline would proceed north along Field Street, then west along Di Giorgio Road, where it would connect with the new distribution pipeline system within El Adobe at the intersection of Di Giorgio Road and Alderwood Street (Figures 4-A and 4-B). The distribution pipeline system within El Adobe would consist of approximately 2.75 miles of 4-, 6-, and 8-inch pipeline. Pipeline installation would occur within existing rights-of-way and public utility easements.

Per the terms of the consolidation agreement, EAPOA would construct the Proposed Project and deed it to LPUD after construction is complete. Thereafter EAPOA would no longer provide potable water to El Adobe; however, EAPOA would continue to own and maintain private streets and street lights within El Adobe.

Equipment anticipated for construction of the Proposed Project includes a drill rig, an excavator, a backhoe, wheeled loaders, rollers, paving equipment, haul trucks, and worker commuting pick-up trucks. It is estimated that construction operations would last approximately 12 months with estimated work hours between 7:00 am and 5:00 pm, Monday through Friday, pursuant to construction encroachment permits issued by Kern County.

2.4.1 GROUNDWATER PRODUCTION WELL (WELL #20)

A new groundwater well would be installed to a depth of 700 to 920 feet below ground surface with a projected flow rate of between 1,200 and 1,400 gallons per minute (gpm). An aboveground 500,000-gallon reservoir would store the water for distribution. Additionally, a booster pump station with two active pumps, one standby pump, and one emergency generator would be installed. As described above in Section 2.4, the new groundwater well, reservoir, and ancillary equipment would be installed on a vacant 3-acre lot in the southern portion of the community of Lamont (Figure 4-A). Installation of the well, construction of the reservoir, and installation of the ancillary equipment would result in the disturbance of the 3-acre lot.

2.4.2 WATER PIPELINES

The proposed water transmission and distribution pipelines would be installed along existing rights-of-way and public utility easements, which traverse paved roads and graded shoulders. The proposed pipeline would generally be installed using conventional open trench and cover methods. When affected, the roadway surface would be replaced or resurfaced, including cement slurry and asphalt.

The pipelines would be buried to a minimum depth of 3 feet below ground surface. Trenches approximately 3 feet wide would be excavated to install pipelines. A 12-foot corridor would be required for pipeline installation. Temporary construction disturbance for pipeline installation is approximately 8.4 acres. Roads would remain open during construction; in some cases they may be temporarily reduced to a single traffic lane. Traffic control would be provided by the construction contractor and would likely include flag personnel, coning, and signage. Work along the pipeline would be conducted in roughly 600 to 1,300 feet long segments with a staggered approach to minimize traffic disturbances.

2.4.3 ABANDONMENT OF EXISTING WELLS

Two existing water production wells would be abandoned per applicable Kern County and state requirements. The two wells are located on previously disturbed sites within El Adobe (Figure 4-B). Abandonment activities include the removal of aboveground structures associated with the well and destroying the well per Kern County Department of Public Health guidance (Kern County 2006; see Appendix B). It is anticipated that abandonment of the wells would require an aboveground work area of approximately 400 square feet per well site.

2.4.4 ADDITIONAL PROJECT COMPONENTS

As part of the Proposed Project, water meters would be installed on all residences receiving the service (approximately 81 residences). Additionally, in accordance with Kern County Fire Department requirements, 24 fire hydrants would be installed within El Adobe along the proposed route for the pipelines. Installation of water meters at each residence entails installing a metering device between the distribution pipeline and the supply pipeline to each residence, and would be accomplished during installation of the distribution lines. Because this work would occur within the anticipated disturbance area for distribution line installation, no additional disturbances are anticipated. Fire hydrants would be installed along the distribution pipeline and within its disturbance area. Thus, no additional disturbances would result.

2.5 ENVIRONMENTAL COMMITMENTS

The following Environmental Commitments would be implemented as part of the Proposed Project to assist with minimizing potential environmental impacts.

(1) PREPARE AND IMPLEMENT AN EROSION CONTROL PLAN

An Erosion Control Plan would be prepared before construction activities that would cause ground disturbance. Site-specific erosion-control, spill-prevention, sedimentation control, and runoff measures would be developed and implemented during construction activities as part of the plan to minimize the potential for erosion and sedimentation during construction.

If applicable, tightly woven fiber netting (mesh size less than 0.25 inch) or similar material would be used for erosion control and other purposes at the project sites to ensure wildlife does not become trapped or entangled in

the erosion control material. Coconut coir matting is an acceptable erosion control material, but no plastic mono-filament matting would be used for erosion control. If feasible, the edge of the material would be buried in the ground to prevent wildlife from crawling underneath the material.

(2) PREPARE AND IMPLEMENT A SPILL PREVENTION AND CONTROL PROGRAM

A spill prevention and control program would be prepared before the start of construction to minimize the potential for hazardous, toxic, or petroleum substances to be released into the project area during construction and operation. The program would be implemented during construction. In addition, the construction contractor would place sand bags, bio-logs, or other containment features around the areas used for fueling or other uses of hazardous materials to ensure that these materials do not accidentally leak into the river. The contractor would adhere to the standard construction best management practices described in the current California Department of Transportation Construction Site Best Management Practices Manual (California Department of Transportation 2003).

(3) PREPARE AND IMPLEMENT A HAZARDOUS MATERIALS MANAGEMENT PROGRAM

A Hazardous Materials Management Program (HMMP) would be prepared and implemented to identify the hazardous materials to be used during construction; describe measures to prevent, control, and minimize the spillage of hazardous substances; describe transport, storage, and disposal procedures for these substances; and outline procedures to be followed in case of a spill of a hazardous material. The HMMP would require that hazardous and potentially hazardous substances stored onsite be kept in securely closed containers located away from drainage courses, storm drains, and areas where stormwater is allowed to infiltrate. It would also stipulate procedures to minimize hazard during onsite fueling and servicing of construction equipment. Finally, the HMMP would require that adjacent land uses be notified immediately of any substantial spill or release.

(4) CONDUCT A WORKER ENVIRONMENTAL AWARENESS PROGRAM

Construction workers would participate in a worker environmental awareness program that addresses species under jurisdiction of the permitting agencies (California Department of Fish and Wildlife [CDFW], and U.S. Fish and Wildlife Service [USFWS]). Workers would be informed about the potential presence of listed and other protected species, and habitats associated with such species, and that unlawful take of the species or destruction of their habitat is a violation of the Federal Endangered Species Act (ESA), California Endangered Species Act (CESA), and/or Migratory Bird Treaty Act (MBTA). Before the start of construction activities, a qualified biologist would instruct all construction workers about the life histories of the protected species and biological resource protection measures.

(5) MINIMIZE WILDLIFE ATTRACTION

To eliminate attraction of wildlife to the project sites, all food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in closed containers and removed from the sites on a daily basis.

2.6 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

As the lead agency, SWRCB has the principal responsibility for ensuring that the requirements of CEQA, the State CEQA Guidelines, and all other applicable regulations are met. The Proposed Project is not located within jurisdictional limits of waters of the United States or State of California or stream channels; therefore, this

Proposed Project would not require regulatory permits from the U.S. Army Corps of Engineers or the CDFW associated with impacts to streams or waters of the United States.

The total Proposed Project area is approximately 11.4 acres in size (3 acres for installing the groundwater well, water storage reservoir and associated infrastructure, and 8.4 acres for water transmission and distribution pipeline installation), which exceeds the 1-acre threshold for a General Construction National Pollutant Discharge Elimination system (NPDES) permit. Therefore, EAPOA is required to file a notice of intent to the SWRCB and is required to prepare an implement a Storm Water Pollution Prevention Plan (SWPPP) that is overseen in the field by the Regional Water Quality Control Board (RWQCB, Central Valley). The SWPPP includes project specific Best Management Practices (BMPs) that would be implemented to prevent soil erosion and discharge of other construction-related pollutants during precipitation that could contaminate nearby water resources. The construction contractor would prepare the SWPPP on behalf of EAPOA as part of construction.

Work within public rights-of-way would require encroachment permits from the Kern County Department of Public Works.

DFA must approve the Proposed Project for implementation. The Division of Drinking Water must approve the permitting of the new facilities before water can be delivered to El Adobe as a potable water supply.

3 ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLYY AFFECTED:		
The environmental factors checked below would be potentially affected by this Proposed Project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.		
☐ Aesthetics	☐ Agriculture and Forestry	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☒ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Signature	Date
Bridget Binning	Senior Environmental Scientist
Printed Name	Title

State Water Resources Control Board, Division of Financial Assistance

Agency

3.1 AESTHETICS

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

The above ground infrastructure associated with the Proposed Project consists of a 500,000-gallon reservoir, a pump station, one stand-by generator, and ancillary equipment. These aboveground structures would be located in a vacant 3-acre lot with low density residential land uses to the north, south, and west, and SR 184 to the east. The vacant lot is vegetated with ruderal and/or weedy plant species.

Impact Analysis

a) **No Impact**.

A scenic vista is generally defined as a view from a vantage point that provides the public with views of a valued landscape. All components of the Proposed Project would be located within already disturbed or developed areas. Thus, the Proposed Project would have no impacts.

b) **No Impact**.

The location of the aboveground infrastructure associated with the Proposed Project is not located at or near a designated scenic corridor (Kern County 2009, City of Bakersfield 2002b). No scenic routes, or historic buildings occur adjacent to or near the Proposed Project area (Kern County 2009, City of Bakersfield 2002b, Appendix E. Thus, the Proposed Project would have no impacts.

c) **Less Than Significant Impact**.

Although the site where the groundwater well, reservoir, pump station, generators, and associated equipment would be constructed is vacant, its visual character and quality is presently that of a disturbed dirt lot. While the visual character of the site would change, it would not degrade the visual character or quality of the lot or its surroundings. Equipment would be housed within sound attenuating roll-away buildings. A chain link perimeter fence would be installed at the 3-acre site, with privacy slats where adjacent to residences on the north side, and the surface of the entire site would be covered in gravel. The pipelines would be installed underground and surface conditions would be returned to pre-construction conditions. The Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings, resulting in less than significant impacts in this respect.

d) **Less Than Significant Impact.**

The Proposed Project would not create a new source of substantial light or glare. During construction operations, there may be times when work has to be performed in early hours of the morning or late afternoon where construction lighting may be required. All lighting would be pointed downward away from residences and shielded to minimize ambient light or glare. Due to the anticipated frequency, duration, and location of lighting that may be necessary during construction, the Proposed Project would have a less than significant impact in regard to light and glare.

3.2 AGRICULTURE AND FOREST RESOURCES

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

The Proposed Project would be constructed within existing rights-of-way and public utility easements, and one 3-acre previously disturbed vacant lot.

Impact Analysis

a) **No Impact**.

The Proposed Project area is not located within areas designated as having Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, according to the California Department of Conservation Important Farmland Finder Geographic Information System database. The Proposed Project would have no impacts.

b) **No Impact**.

The Proposed Project is not located within land zoned for agricultural use or Williamson Act contract zone, as illustrated in Figure 5 and the Urban Constraints map of the 2010 General Plan Update (City of Bakersfield 2009). The Proposed Project would have no impacts.

c) **No Impact**.

The Proposed Project is not located within land zoned for forestry use as illustrated in Figure 5 and the Urban Constraints map of the 2010 General Plan Update (City of Bakersfield 2009). The Proposed Project would have no impacts.

d) **No Impact**.

The Proposed Project would not require changes to the existing environment that would result in the loss of or conversion of forest land to non-forest use. The Proposed Project would have not impacts.

e) **No Impact**.

While located within a rural community and adjacent rural land, the Proposed Project area is characterized primarily by developed urban use. The Proposed Project would not result in changes to the existing environment that would convert Farmland to non-agricultural use or forest land to non-forest use. Thus, the Proposed Project would have not impacts.

3.3 AIR QUALITY

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.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

The Proposed Project includes construction and operation of a new water delivery system to supply potable drinking water from LPUD to the residents of El Adobe. The new water delivery system requires installation of new water transmission pipelines, a new groundwater well and pump, an above-ground reservoir, booster pumps, and ancillary equipment. In addition, two existing water production wells would be abandoned. Construction activities would generate emissions from the use of off-road equipment (e.g. a drill rig, an excavator, a backhoe, wheeled loaders, rollers and paving equipment), haul trucks, and construction worker commutes that could result in a significant impact to air quality. Operation of the well pump station would include on-site booster pumps, air compressors, well pump, and a diesel-fired emergency backup generator; all of these items, except the generator (which is anticipated to require an Authority to Construct/Permit to Operate from the San Joaquin Valley Air Pollution Control District [SJVAPCD]), are electrically-powered.

Air quality is defined by the concentration of pollutants in relation to their impact on human health. Concentrations of air pollutants are determined by the rate and location of pollutant emissions released by pollution sources, and the ability of the atmosphere to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, and sunlight. Therefore, ambient air quality conditions within local air basins are influenced by such natural factors as topography, meteorology, and climate, in addition to the amount of air pollutant emissions released by existing air pollutant sources.

The Proposed Project area is located in the San Joaquin Valley Air Basin (SJVAB), which is made up of eight counties in the Central Valley of California: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and northern part of Kern County. The SJVAPCD regulates stationary sources and monitors air quality in the SJVAB.

Local climatological effects, including wind speed and direction, temperature, inversion layers, and precipitation and fog, can exacerbate air quality problems. The climate of the SJVAB is characterized by warm, dry summers, and mild winters.

The Bakersfield area climate is characterized by hot, dry summers and moderate, moist winters. Most of the precipitation occurs from November to April, with an average annual precipitation of 5.8 inches (Western Regional Climate Center [WRCC] 2016). Average monthly temperature in Bakersfield is 79.6 degrees Farenheit (°F), with annual low in January of 35.3°F, and annual highs of 100.9°F in July (WRCC 2016).

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) identified six air pollutants as being of concern both on a nationwide and statewide level (CARB 2015), ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, and particulate matter (PM). PM is further subdivided into two classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$). Because the air quality standards for these air pollutants are regulated using human health and environmentally based criteria, they are commonly referred to as "criteria air pollutants."

Areas are classified under the Federal Clean Air Act and California Clean Air Act as attainment, non-attainment, or maintenance (previously non-attainment and currently attainment) for each criteria pollutant based on whether the federal and state air quality standards have been achieved. Table 1 shows the pollutants and associated attainment status for the SJVAB.

Table 1. San Joaquin Valley Air Basin Attainment Designations

Pollutant	Federal	State
Ozone 8-hour	Nonattainment – Extreme	Nonattainment
Ozone 1-hour	No Federal Standard	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment

Source: SJVAPCD 2015a, CARB 2016.

Impact Analysis

a) **Less Than Significant Impact.**

Air quality plans describe air pollution control strategies to be implemented by a city, county, or region. The primary purpose of an air quality plan is to bring an area that does not attain federal and state air quality standards into compliance with the requirements of the Federal Clean Air Act and California Clean Air Act requirements. The SJVAPCD is responsible for developing and implementing air quality attainment plans (AQAP) for each criteria air pollutant that does not meet the standard. AQAP documents are transmitted to the CARB and U.S. EPA for incorporation into the State Implementation Plan, a general plan to attain and

maintain the National Ambient Air Quality Standards for complying with the Federal Clean Air Act. Recent AQAP plans include:

- The 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard, adopted by the SJVAPCD on September 15, 2016. This plan addresses the EPA federal annual $PM_{2.5}$ standard of 12 $\mu g/m^3$ established in 2012, includes an attainment impracticability demonstration, and a request for reclassification of the San Joaquin Valley from Moderate nonattainment to Serious nonattainment.
- The 2016 Plan for the 2008 8-Hour Ozone Plan, adopted in June 2016. This plan satisfies Clean Air Act requirements and ensures expeditious attainment of the 75 parts per billion 8-hour ozone standard.
- The 2015 Plan for the 1997 $PM_{2.5}$ Standard, adopted by the SJVAPCD on April 16, 2015.
- 2014 Reasonably Available Control Technology for the 8-Hour Ozone State Implementation Plan, adopted by the SJVAPCD in June 2014.
- The 2007 PM_{10} Maintenance Plan, adopted by the SJVAPCD in September 2007, and approved by CARB in October 2007. On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.

The air quality plans present comprehensive strategies to reduce emissions from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations; enhancement of CEQA participation; implementation of a new and modified indirect-source review program; adoption of local air quality plans; and stationary, mobile, and indirect source control measures. The Proposed Project would comply with all SJVAPCD Rules and Regulations (SJVAPCD 2015b) including, but not limited to: Rule 2010 (Permits Required); Rule 4601 (Architectural Coatings); Rule 4702 (Internal Combustion Engines); and Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities).

Construction of the Proposed Project would involve the use of off-road equipment and daily worker trips. Assumptions for off-road equipment emissions in the air quality plans were developed based on hours of activity and equipment population reported to CARB for rule compliance. The proposed project would not increase the assumptions for off-road equipment use in the air quality plans.

The SJVAPCD thresholds of significance for criteria air pollutants are applied to evaluate regional impacts of project-specific emissions of air pollutants, and their impact on the ability of the SJVAPCD to reach attainment. As discussed later in this section, although the Proposed Project would generate criteria air pollutant emissions, the project-related emissions from construction and operation would not exceed the significance thresholds developed by the SJVAPCD. Therefore, impacts would be less than significant.

b) **Less Than Significant Impact.**

SJVAPCD published the *Guidance for Assessing and Mitigating Air Quality Impacts*, which is intended as an advisory document for other agencies, consultants, and project proponents to use when preparing CEQA documents (SJVAPCD 2015c). Table 2 lists the SJVAPCD-adopted thresholds of significance for criteria air pollutant emissions and/or their precursors (hereafter, precursors are included in references to criteria air pollutants).

Table 2. SJVAPCD-Adopted Thresholds of Significance for Criteria Pollutants.

Pollutant/Precursor	Emissions in Tons per Year (tpy)	
	Construction	Operations
Carbon monoxide (CO)	100	100
Nitrogen oxides (NO_X)	10	10
Reactive organic gases (ROG)	10	10
Sulfur oxides (SO_X)	27	27
Suspended particulate matter (PM_{10})	15	15
Fine particulate matter ($PM_{2.5}$)	15	15

Source: SJVAPCD 2015b

Construction

Construction of the proposed project would result in the temporary generation of reactive organic gases (ROG), nitrogen oxide (NO_X), PM_{10}, and $PM_{2.5}$ emissions from soil excavation and material transport. ROG and NO_X emissions are primarily associated with mobile equipment exhaust. Fugitive dust emissions are primarily associated with site preparation and grading and vary based upon parameters such as soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles on- and off-site.

The construction period for the Proposed Project would span one calendar year (2017 was assumed). To conservatively estimate emissions generated by the Proposed Project, construction was assumed to have overlapping phases. Construction-related emissions associated with typical construction activities were modeled using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2. CalEEMod allows the user to enter project-specific construction information, such as types, number, and horsepower of construction equipment; and number, and length of off-site motor vehicle trips. The analysis assumed that the construction site would be approximately 11.4 acres, and off-road equipment would operate simultaneously for 10 hours per day, 5 days per week.

The total construction related criteria air pollutant emissions for the project are presented in Table 3. Appendix C provides additional modeling assumptions and details.

Table 3. Estimated Unmitigated Annual Construction Emissions.

	Emissions (tons per year)					
	ROG	NO_X	CO	SO_X	PM_{10}*	$PM_{2.5}$*
Proposed Project	0.89	9.68	5.74	0.01	0.48	0.42
SJVAPCD Threshold	10	10	10	27	15	15
Exceed Threshold	No	No	No	No	No	No

* PM_{10} emissions shown include the sum of particulate matter with aerodynamic diameter 0 to 2.5 microns and particulate matter with aerodynamic diameter 2.5 to 10 microns.

ROG = reactive organic gases
NOx = nitrogen oxide
CO = carbon monoxide
SO_2 = sulfur dioxide
PM_{10} = suspended particulate matter
$PM_{2.5}$ = fine particulate matter

As shown in Table 3, construction-generated emissions of ROG, NO_X, CO, SOx, PM_{10}, and $PM_{2.5}$ would not exceed applicable mass emission thresholds established by SJVAPCD. The contractor is also required to comply with the SJVAPCD's Regulation VIII, "Fugitive Dust PM_{10} Prohibitions," and implement all applicable control measures, as required by law. Regulation VIII contains, but is not limited to, the following required control measures:

- During active operations, apply water or chemical/organic stabilizers/suppressants sufficient to limit visible dust emissions (VDE) to 20 percent opacity.
- When handling bulk materials, apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity.
- Load all haul trucks such that the freeboard is not less than 6 inches when material is transported across any paved public access road sufficient to limit VDE to 20 percent opacity.
- Cover haul trucks with a tarp or other suitable cover.
- Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site.
- Prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of a site.

The Proposed Project would be required to implement all applicable dust control measures during construction to maintain compliance with Regulation VIII. Therefore, construction emissions would not violate an ambient air quality standard or contribute substantially to an existing violation. This impact would be less than significant.

Operation

The operation of the Proposed Project would include emissions associated with regular maintenance and testing activities for an emergency backup generator; as mentioned previously, the other operational equipment is electric. Operational emissions as a result of the diesel-fired emergency generator were calculated outside of CalEEMod based on estimated usage and equipment specific emission factors (Milton CAT 2015). Appendix C provides additional modeling assumptions and details. The emissions for each criteria air pollutant were estimated to be less than 0.001 ton per year, well below the operational thresholds established by the SJVAPCD. Therefore, the Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The impact would be less than significant.

c) **Less Than Significant Impact.**

The SJVAPCD cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SJVAB, and this regional impact is cumulative rather than attributable to any one source. Per CEQA Guidelines Section 15064(h)(4), the existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The SJVAPCD thresholds of significance are relevant to whether a project's individual emissions would result in a cumulatively considerable incremental contribution to the existing cumulative air quality

conditions. If a project's emissions would be less than those threshold levels, the project would not be expected to result in a considerable incremental contribution to the significant cumulative impact. As shown in Table 3, the construction emissions do not exceed the thresholds of significance for criteria pollutants; additionally, the operational emissions do not approach the thresholds. Therefore, the Proposed Project would not contribute to a cumulatively considerable air quality impact. The impact would be less than significant.

d) **Less Than Significant Impact.**

Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or other who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. Sensitive receptors that may be adversely affected by the project include the surrounding residential areas adjacent to the project site. The Proposed Project site is surrounded by rural residential and agricultural land uses.

As discussed above, the Proposed Project would implement best management practices and comply with dust control measures identified in Regulation VII. In addition, due to the nature of pipeline installation, similar to a moving assembly line, trucks and off-road equipment would not operate in the immediate vicinity of any sensitive receptor for an extended period of time.

Neither construction nor operational emissions for the Proposed Project would exceed the significance thresholds; therefore, it would not expose nearby sensitive receptors to substantial pollutant concentrations. Compliance with the SJVAPCD rules limiting dust generation would not expose sensitive receptors to substantial pollutant concentrations. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant.

e) **Less Than Significant Impact.**

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Construction activities associated with the Proposed Project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions, the highly diffusive properties of diesel exhaust, and the location of the Proposed Project site, odorous construction emissions would not affect a substantial number of people. The Proposed Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. The Proposed Project would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The Proposed Project is located in the Lamont U.S. Geological Survey (USGS) 7.5-minute quadrangle, within Section 10, Township 31 South, Range 28 East. Portions of the Proposed Project, including the El Adobe community, are located in unincorporated Kern County; the proposed groundwater production well and reservoir storage site is located within the boundaries of the census-designated area of Lamont, California.

The Proposed Project occurs within the boundaries of the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP; City of Bakersfield 1994). The MBHCP was established in April 1994 and covers approximately 405 square miles in and around Metropolitan Bakersfield, including both the City of Bakersfield and Kern County jurisdictional lands. The MBHCP was established to "acquire, preserve and enhance native habitats that support endangered and sensitive species, while allowing urban development to proceed as set forth in the Metropolitan Bakersfield 2010 General Plan" (City of Bakersfield 1994). A CDFW-issued Incidental Take Permit (ITP) authorizes take of four listed species, including Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin kit fox (*Vulpes macrotis mutica*), San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), and Bakersfield cactus (*Opuntia basilaris* var. *treleasei*) incidental to urban development within the boundaries of the

MBHCP. The current ITP (No. 2081-2013-058-04) was issued on August 20, 2014, and amended on April 1, 2015, and June 2, 2016; it expires September 1, 2019. Projects within the MBHCP must comply with the specific minimization and mitigation measures for species covered under the ITP.

Topographically, the Proposed Project area and surrounding areas are primarily flat and highly disturbed, consisting of residential and commercial development, intensive agriculture, and several previously disturbed parcels. There are no natural water features within the Proposed Project area or its immediate vicinity, including streambeds, natural drainages, wetlands, or waters of the U.S. Water features in the vicinity consist of man-made retention ponds, which are generally un-vegetated and may contain water only periodically. All Proposed Project elements would be installed on previously disturbed lands, consisting primarily of existing roadway rights-of-way, public utility easements, and one 3-acre previously disturbed vacant lot.

A literature review of documented sensitive biological resources in the Proposed Project area and immediate vicinity preceded a reconnaissance-level biological field survey to verify current site conditions. The literature review included a search of the California Natural Diversity Database (CNDDB); U.S. Fish and Wildlife (USFWS) National Wetlands Inventory, Critical Habitat Portal, and Endangered Species List; and the California Native Plant Society (CNPS) sensitive plant species database for records within 5 miles of the Proposed Project and within the Proposed Project area, as well as all adjacent USGS 7.5-minute quadrangles. The attached Biological Technical Report includes a detailed discussion of these findings (see Appendix D).

Impact Analysis

a) **Less Than Significant with Mitigation.**

The literature review identified a total of 52 sensitive and listed plant and wildlife species within the nine USGS quadrangles search parameter, and 16 listed or sensitive plant and wildlife species and sensitive natural communities within 5 miles of the Proposed Project. The Biological Technical Report includes the results of these literature reviews (see Appendix D). Habitat requirements, availability and quality of suitable habitat within the Proposed Project area, known distributions, and tolerance to disturbance formed the basis for assessing potential for sensitive and special status species to occur within the Proposed Project area.

The analysis resulted in two plants, two birds, and two mammals considered sensitive or with special status as having potential to occur within the Proposed Project area. Because the Proposed Project area does not support native vegetation communities or natural water features, and the roadside rights-of-way and previously disturbed parcels support only marginally suitable habitat, the potential for most of these species to occur is low. Impacts could not be completely excluded due to the timing of the survey and the elusiveness and highly mobile nature of some of these species.

The literature review and field surveys identified several listed and sensitive species with potential to occur within the Proposed Project area (Table 4), including Horn's milk-vetch (*Astragalus hornii* var. *hornii*), tricolored blackbird (*Agelaius tricolor*), western burrowing owl (*Athene cunicularia hypugea*), San Joaquin kit fox (*Vulpes macrotis mutica*), and Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*). Habitat within the Proposed Project area for these species is marginal, as the Proposed Project area consists primarily of developed or disturbed parcels and intensive agriculture. Proposed Project disturbances are generally

Table 4. Special Status Species with Potential to Occur within the Proposed Project Area.

Name	Status*
Horn's milk-vetch (*Astragalus hornii* var. *hornii*)	CRPR 1B.1
Tricolored blackbird (*Agelaius tricolor*)	CSC, BCC, California Candidate
Western burrowing owl (*Athene cunicularia hypogea*)	CSC, BCC
San Joaquin kit fox (*Vulpes macrotis mutica*)	ST, FE
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	SE, FE

*Status Definitions:
CRPR = California Rare Plant Rank.
1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California.
CSC = California Species of Special Concern.
California Candidate = Species that is a candidate for listing under the California Endangered Species Act
ST = California Threatened Species.
SE = California Endangered Species.
BCC = Federal Bird of Conservation Concern.
FE = Federal Endangered Species.

limited to existing roadway rights-of-way and public utilities corridors. The only permanent impacts to habitat would occur at the 3-acre proposed groundwater production well and water storage site, which is heavily disturbed and dominated by non-native, invasive plant species. Furthermore, a high density of feral dogs at this site may preclude permanent residence by the aforementioned sensitive wildlife species. No listed or sensitive species or their sign (i.e., burrows, tracks, scat, prey remains) were observed during the field survey. The potential remains that these species use the Proposed Project area, particularly as foraging or transitory habitat; thus, impacts may occur due to the proposed work activities.

Mitigation measures to protect special status and sensitive species include pre-construction surveys to identify potential burrows for western burrowing owl, San Joaquin kit fox, and Tipton kangaroo rat; seasonally appropriate botanical surveys; implementation of BMPs including dust control measures, noise control measures, and daily heavy equipment inspections; implementation of wildlife escape ramps or other entrapment prevention measures; and other species-specific measures as required, such as live-trapping surveys for Tipton kangaroo rats where potential burrows are encountered. The attached Biological Technical Report (see Appendix D) discusses these impacts and the recommended mitigation measures in detail. Mitigation measures are also listed below. The low probability of occurrence combined with implementation of the recommended mitigation measures would reduce impacts to listed and sensitive species to less than significant.

b) **<u>No Impact</u>.**

No critical habitat designated by the USFWS occurs within the Proposed Project area or its vicinity; thus, no impacts to designated critical habitat due to the Proposed Project would occur. The Proposed Project area and its vicinity are predominately developed, consisting of intensive agriculture and residential/commercial parcels. Field surveys within the Proposed Project area did not identify any native or naturalized vegetation communities that would be subject to impacts as a result of Proposed Project-related activities, including riparian habitats and other sensitive habitats. A review of the CNDDB identified one sensitive natural community, valley saltbush scrub, in the vicinity of the Proposed Project. This community occurs more than 0.3 miles west of the Proposed Project and would not be subject to direct or indirect impacts. The Kern County General Plan and the Metropolitan Bakersfield General Plan do not identify additional sensitive

habitats in the vicinity of the Proposed Project. Thus, the Proposed Project would not result in impacts to riparian habitats and sensitive natural communities.

c) **No Impact**.

The Proposed Project area and its immediate vicinity do not contain any features that qualify as jurisdictional wetlands or waters of the United States under Section 404 of the Clean Water Act (CWA). This finding is based on a review of the USFWS National Wetlands Inventory and historic and current aerial photographs of the Proposed Project area, and a field survey to verify current site conditions. Although several water features occur in the vicinity of the Proposed Project, all are non-jurisdictional retention ponds associated with active agriculture; the Proposed Project would not result in impacts to any of these features. The Proposed Project would not result in direct removal, filling, hydrological interruption, or other impacts to federally protected wetlands as defined by Section 404 of the CWA because no such resources occur within the Proposed Project footprint.

d) **Less Than Significant Impact**.

Given the geographic location and surrounding land uses, the Proposed Project area is not considered an essential component of a wildlife corridor. According to the CDFW, no documented wildlife corridors occur within the Proposed Project area or in the immediate vicinity, and no wildlife nursery sites are known in the immediate vicinity of the Proposed Project. Proposed Project activities would not impede the use of any native wildlife nursery sites.

Proposed Project impacts are limited to existing roadway rights-of-way and public utility easements, which may be considered marginally suitable transitory habitat. Although small portions of road shoulder would be temporarily blocked during construction, installation of the proposed water pipeline would not permanently impede or interfere with wildlife movement. Further, the surrounding habitats are equally suitable for utilization by migrating wildlife. Impacts to wildlife movement through the site would be less than significant.

e) **No Impact**.

The Proposed Project area occurs within the jurisdiction of the Kern County General Plan and the Metropolitan Bakersfield General Plan. A review of these plans did not reveal any conflicts with existing provisions protecting biological resources, provided that the Proposed Project abides by state and federal regulations protecting these resources. No local ordinances, such as a tree protection plan, are in effect for the Proposed Project area. The Proposed Project would not impact existing local policies and ordinances protecting biological resources.

f) **No Impact**.

As previously indicated, the Proposed Project is within the boundaries of the MBHCP. The Proposed Project may be required to pay impact fees to support habitat acquisition and management, and would be required to abide by mitigation measures set forth in the established Incidental Take Permit for the MBHCP. The Proposed Project would not impact mitigation land associated with the MBHCP and does not conflict with any conditions of the MBHCP. The Proposed Project would not impact the adopted MBHCP or other approved local, regional, or state habitat conservation plans.

The Proposed Project would result in less than significant impacts on Biological Resources with implementation of the following mitigation measures:

Mitigation Measure BIO-1: Prior to the start of work activities associated with the Proposed Project, the EAPOA or its representative shall submit to the CDFW in writing the names, qualifications, and contact information of all proposed qualified wildlife biologists for the Proposed Project. Advanced written approval for each individual shall be obtained prior to the commencement of any pre-construction surveys for San Joaquin Kit fox or Tipton kangaroo rat. The name, qualifications, and contact information for the proposed Tipton kangaroo rat biologist shall be submitted to the CDFW for approval no less than 30 days prior to conducting any live trapping or salvage activities.

Timing: Before construction

Responsibility: EAPOA or its representative

Mitigation Measure BIO-2: Prior to construction, a CDFW-approved qualified biologist shall conduct a training session for all construction personnel focused on the protection and conservation of sensitive species that may be encountered in the Project area, the laws and codes that regulate these species, and the protection measures that must be followed to minimize impacts.

Timing: Before construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-3: A CDFW-approved qualified biologist shall conduct a comprehensive pre-construction survey for special-status plant and wildlife species within the Proposed Project footprint and buffer no more than 30 days prior to the start of construction. In the event that a special-status or listed species is observed, the appropriate agency or agencies shall be contacted for consultation and to determine an approved course of action.

Timing: Before construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-4: Impacts to sensitive plant species shall be avoided to the extent feasible; where sensitive plants occur within the work area or buffer, a no-disturbance buffer of no less than 5 feet from the edge of the root zone shall be established to protect the individuals from direct impacts. If sensitive plant species are observed within the disturbance footprint, the appropriate agency or agencies will be contacted to determine an appropriate course of action.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-5: If Tipton kangaroo rats or San Joaquin kit foxes or their sign are detected within the Proposed Project footprint or buffer during pre-construction surveys or any Proposed Project-related activities, a qualified biological monitor shall be on-site during all Proposed Project-related ground-disturbing activities, including vegetation removal.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-6: All trenches that are to be left open overnight shall be either securely covered or have wildlife escape ramps installed during non-work hours to prevent entrapment of common and special-status wildlife species.

- All steep-walled pipeline and utility trenches shall be inspected in the mornings to prevent entrapment of common and special-status wildlife species. All trenches shall be inspected prior to back-filling and a qualified biologist shall remove any entrapped wildlife or allow animals to escape voluntarily prior to resuming construction.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-7. Western burrowing owl protection. No more than 30 days prior to construction, a qualified biologist shall conduct pre-construction clearance surveys within all potentially suitable habitats for western burrowing owls within the work area and a minimum 50-foot buffer. Surveys shall focus on identifying any western burrowing owls, active or inactive western burrowing owl burrows, and their sign, including pellets, white wash, prey remains, tracks, feathers and other signs of occurrence.

- If occupied, non-breeding burrows are observed, a no-disturbance buffer of no less than 160 feet shall be established around the burrow. If a burrow is located within 160 feet of the work area, the CDFW should be consulted to determine an appropriate course of action.
- If occupied, breeding burrows are observed, a no-disturbance buffer of no less than 300 feet shall be established around the burrow. A qualified biologist shall monitor the burrow until it has been determined that the nest has failed or the young have fledged. If a breeding burrow is located within 300 feet of the work area, the CDFW shall be consulted to determine an appropriate course of action.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-8: San Joaquin kit fox protection. No more than 30 days prior to the start of construction, a qualified biologist shall conduct pre-construction clearance surveys of the work area and a 50-foot buffer for signs of San Joaquin kit fox, including active and inactive natal and non-natal dens, scat, prey remains, and tracks. All suitable denning locations shall be investigated for use. Any observation of an active den shall result in consultation with the USFWS and CDFW to determine if modifications to the Proposed Project or further mitigation measures may be necessary.

- If active natal or non-natal San Joaquin kit fox dens are found within the work area or buffer during construction activities, all work shall immediately stop and the USFWS, CDFW, and the City of Bakersfield shall be notified. A minimum buffer of 100 feet shall be established around active, non-natal dens. Natal dens shall be protected with a minimum 200-foot buffer; natal dens that contain pups shall be protected by a minimum 500-foot buffer. A qualified biologist shall monitor any active dens during work activities.

  A minimum of 4 consecutive days of monitoring shall be required to determine that a den is unoccupied. Unoccupied dens should be conserved whenever possible, but may be covered in a

secure manner to prevent access by San Joaquin kit foxes during ongoing work activities. Dens covered in this manner shall be uncovered upon completion of the proposed work to allow use by San Joaquin kit foxes.

- If a San Joaquin kit fox is encountered during Proposed Project activities, all work that could result in a direct injury, disturbance, or harassment shall immediately stop and the Project Biologist(s) shall be notified.
- Where San Joaquin kit foxes have the potential to occur, all heavy equipment and vehicles left on-site overnight will be inspected at the beginning of each work day to verify that no individuals have taken shelter under the equipment. If a San Joaquin kit fox is observed, the Project Biologist(s) shall be notified and the animal shall be observed from a distance until it has moved out of the area of its own accord.
- Where pre-construction surveys indicate presence of San Joaquin kit fox, exclusionary fencing (silt or construction fencing) shall be installed around work areas to prevent individuals from entering the work area.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-9: Tipton kangaroo rat protection. No more than 30 days prior to construction, a CDFW-approved Tipton kangaroo rat biologist shall conduct surveys within the work area and buffer to identify all small mammal burrows that exhibit evidence of utilization by kangaroo rats, including the presence of tail drags, seed caches, runways, and other kangaroo rat sign.

- If kangaroo rat burrows are identified, the CDFW-approved biologist will conduct a live-trap survey following the methods provided in the USFWS-approved Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats (USFWS 2013) to definitively identify species of kangaroo rats present. A minimum of 5 consecutive nights of live small mammal trapping shall be conducted, with high density of traps focused around kangaroo rat burrows, runways, dust baths, and other sign of kangaroo rats. If Tipton kangaroo rats are identified during surveys, the appropriate agencies (CDFW, USFWS) shall be contacted, and minimization measures provided in the MBHCP ITP shall be followed.

- The CDFW-approved Tipton kangaroo rat biologist shall maintain a record of all Tipton kangaroo rats handled, and submit the documentation to the CDFW. Information shall include the location and time of capture, sex, approximate age, weight, general condition and health, and ambient temperature when handled for each individual.
- If any Tipton kangaroo rats are observed during work activities, all work in the vicinity shall immediately stop and the appropriate agencies (CDFW, USFWS) shall be contacted for consultation. If uninvestigated kangaroo rat burrows are observed during construction, work in the vicinity shall stop and appropriate live-trap surveys shall be conducted to confirm the species

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-10: Native nesting birds protection. If construction activities occur during avian breeding season (February 1 through September 15), a qualified biologist shall conduct a nesting bird

survey of the Proposed Project footprint and a minimum of a 300-foot adjacent buffer no more than 7 days prior to the start of construction or vegetation clearing activities.

- If active nests of native species are identified within the work area or buffer, a no-disturbance buffer shall be established, measuring no less than 500 feet for nesting raptors and 300 feet for all other species. A qualified biologist shall monitor the nest for progress until such time as the nest has been determined to have failed or successfully fledged all young.
- All vegetation clearing activities within suitable nesting habitat shall be conducted outside the breeding bird season to the extent feasible. Where vegetation clearing must be conducted within the breeding bird season, these activities shall be preceded by a nesting bird survey conducted by a qualified biologist no more than 7 days prior to the start of vegetation clearing.
- Vegetation clearing activities during avian breeding season within suitable nesting bird habitat shall be monitored by a qualified biologist.

Timing: Before and during construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-11: All construction equipment, staging areas, materials and personnel shall be restricted to existing roadways and road shoulders, designated work areas, or previously disturbed off-site areas that are not habitat for special-status species.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-12: All trash and food items shall be contained and removed from the site regularly to prevent attraction of predators, such as dogs, coyotes, or San Joaquin kit fox.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-13: Any spills of petroleum products or other chemicals, which may represent a hazard to wildlife, shall be cleaned up promptly and in accordance with appropriate laws and regulations.

Timing: During construction

Responsibility: EAPOA and Project Biologists

Mitigation Measure BIO-14: All pipes, culverts, or similar structures on-site with a diameter of 2 to 24 inches shall be inspected for special-status species prior to moving or welding. Openings shall be capped or otherwise covered if sections cannot be inspected to prevent the entry and potential loss of wildlife. If a special-status species is discovered inside a pipe, the animal shall be safely removed by a qualified biologist. The pipe segment shall not be moved until the animal has escaped, or the pipe segment shall be moved a single time out of the path of construction. Alternatively, stored pipe may be kept capped at all times until used during construction.

Timing: During construction

Responsibility: EAPOA and Project Biologists

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The Proposed Project area is within existing dedicated rights-of-way and lands previously disturbed by farming operations and road construction.

Impact Analysis

a), b), c), and d) **Less Than Significant Impact with Mitigation**.

It is anticipated that construction activities associated with the Proposed Project would not result in significant impacts to historical, archeological, and paleontological resources, or human remains. Consultation with the Native American Heritage Commission (NAHC) found no cultural resources within the Proposed Project area but recommended that additional information be requested from local tribal groups (Appendix E). Consultation with local tribal groups and the California Historical Resource Information System (CHRIS) concluded that large portions of the Proposed Project area were previously evaluated and no resources were found (Appendix E). A records search at the Natural History Museum of Los Angeles County (NHMLA) revealed that no fossil localities exist directly within the Proposed Project boundaries (Appendix E). Surface grading or shallow excavations in the Proposed Project area are not likely to uncover significant vertebrate fossils. Deeper excavations that extend down into older Quaternary deposits, may encounter significant fossil vertebrate remains. In consideration of the information presented by the NAHC, local tribal groups, CHRIS, and NHMLA, the mitigation measures included below would be implemented during construction of the Proposed Project.

The Proposed Project would result in less than significant impacts on Cultural Resources with implementation of the following mitigation measures:

Mitigation Measure CR-1: Prior to the start of any ground disturbance, all project construction personnel shall participate in a Cultural Resource Sensitivity Training (CRST) provided by the Tejon Indian Tribe. The training will provide a protocol for construction personnel to follow in the event that Tribal Cultural Resources and/or human remains are unearthed during construction of the project, ensuring the project remains in compliance with applicable environmental regulations concerning the inadvertent discovery of cultural resources and/or human remains.

Timing: Prior to construction

Responsibility: EAPOA

Mitigation Measure CR-2: If archaeological features or materials are unearthed during any phase of Proposed Project activities, all work in the immediate vicinity of the find shall halt until Recipient has contacted the State and the significance of the resource has been evaluated. Any mitigation measures that may be deemed necessary must have the approval of the State, and shall be implemented, pursuant to the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, 48 CFR 44716, by a qualified archaeologist representing the Recipient prior to the resumption of construction activities.

Timing: During construction

Responsibility: EAPOA and its contractors

Mitigation Measure CR-3: Any substantial and deep excavations within the Proposed Project area should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding construction. Sediment samples from the Proposed Project area should also be collected and processed to determine the small fossil potential of the site. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations. If human remains are exposed by activity related to the Project, the Recipient must comply with California State Health and Safety Code, Section 7050.5, which states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code, Section 5097.98.

Timing: During construction

Responsibility: EAPOA and its contractors

3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

The *Geotechnical Engineering Investigation Report and Limited Soils Evaluation* (BSK Associates [BSK] 2016; Appendix F), describes the environmental setting at the Proposed Project site as follows:

"The site is located in the structural region identified by the USGS (Bartow 1991) as the San Joaquin Valley portion of the southern Sierran block. This area forms a broad syncline with deposits of marine and overlying continental sediments, Jurassic to Holocene in age. The thickness of the sediments increases to the west and reach a thickness of as much as 20,000 feet on the west side of the San Joaquin Valley syncline. North and east of the site, the relatively flat geomorphology transitions into the foothills of Sierra Nevada, which generally consist of pre-Cretaceous metamorphic rocks, Mesozoic ultramafic and Mesozoic granitic rocks. The site is situated on recent alluvial fan deposits, which are the result of the recent alluvial fans that originate in the Sierra Nevada Mountains northeast of the site."

Impact Analysis

a) **Less Than Significant Impact.**

A review of the California Fault Hazard Maps (USGS 2016) indicates that the Proposed Project is not located within an Alquist-Priolo Earthquake Fault Zone, and no known active faults traverse the Proposed Project site. The closest Fault-Rupture Hazard Zone relates to the unnamed fractures associated with the 1952 Kern County earthquake, approximately 7 miles northeast and southeast of the site (BSK 2016). The Proposed Project design and construction would comply with requirements of the California Building Code (CBC) design guidelines to address potential seismic-related hazards. Based on absence of known faults within the site and incorporation of applicable standards, potential Proposed Project impacts associated with seismic rupture, ground shaking and ground failure, including liquefaction, would be less than significant. The Proposed Project site consists of relatively flat terrain and would not have any risks associated with landslides. No natural or artificial slopes exist on or in the immediate vicinity of the Proposed Project site. The site is flat, and there are no landforms in the area that would be susceptible to landslides. The Proposed Project would have less than significant impacts.

b) **Less Than Significant Impact.**

Soils at the Proposed Project site are typically well drained, and site topography is relatively flat. Increased erosion potential exists at locations with poorly drained soil and steep slopes. The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into Waters of the U.S. As required by Kern County, construction activities would be conducted in compliance with the statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No. 2009-009-DWQ as amended by Order No. 2010-0014-DWQ [NPDES No. CAS000002]), issued by the SWRCB on September 2, 2009, and effective for all project sites on July 1, 2010. In accordance with the NPDES permit, erosion potential during construction would be managed and minimized through the implementation of BMPs contained within a SWPPP. Adherence to and implementation of the SWPPP and BMPs would reduce construction-related erosion impacts to less than significant levels.

c) **Less Than Significant Impact.**

Mapped soil types (Figure 6) consist of well drained alluvial soils that appear suitable for construction of the Proposed Project. The Proposed Project site is located on relatively flat terrain where no impacts are anticipated with respect to landslides. It is located within the San Joaquin Valley Groundwater Basin, where subsidence has historically occurred due to groundwater pumping (Borchers et al. 2014). The Proposed Project is designed and would be constructed in compliance with the CBC, and incorporate geotechnical recommendations presented in the Geotechnical Engineering Report prepared for the Proposed Project (BSK 2016; Appendix F) to stabilize project components and reduce potential impacts related to geologic units or soils to a less than significant level. Based on the site conditions and proposed construction and design methods, potential impacts related to geologic or soil instability would be less than significant.

d) **Less Than Significant Impact.**

Soils with moderate to high shrink-swell potential (expansive soils) as identified by U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil surveys are not present in the location of the Proposed Project (NRCS 2016). As described in the BSK Geotechnical Report (see Appendix F), soils at

the Proposed Project site are well drained alluvial soils and are not considered to be expansive. The potential impacts related to expansive soils would be less than significant.

e) **No Impact**.

No septic or other wastewater disposal systems are planned to be utilized as part of the Proposed Project. Therefore, no impacts related to soils inadequately supporting onsite septic or other wastewater disposal systems are anticipated.

3.7 GREENHOUSE GAS EMISSIONS

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

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHG), play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters earth's atmosphere is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. Infrared radiation is absorbed by GHGs; as a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth.

GHGs are present in the atmosphere naturally, are released by natural sources and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. GHGs widely accepted as the principal contributors to human-induced global climate change that are relevant to the Proposed Project include:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)

Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4 is the main component of natural gas and is associated with agricultural practices and landfills. N_2O is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO_2. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere ("atmospheric lifetime"). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1; CH_4 has a GWP of 28, and N_2O has a GWP of 265 (Intergovernmental Panel on Climate Change [IPCC] 2013). For example, 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 28 tons of CO_2. GHGs with lower emissions rates than CO_2 may still contribute to climate change, because they are more effective at absorbing outgoing infrared radiation than CO_2 (i.e., high GWP). The concept of CO_2-equivalents (CO_2e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

Impact Analysis

a) **Less Than Significant Impact.**

The SJVAPCD is the agency responsible for protecting public health and welfare through the administration of federal and state air quality laws and policies. In December 2009, the SJVAPCD adopted the *Final Staff Report Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act* (SJVAPCD 2009). Additionally, the SJVAPCD developed guidance for land-use agencies to address GHG emission impacts for new development projects. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would have a less-than-significant individual and cumulative impact for GHG emissions. Projects implementing Best Performance Standards (BPS) and reducing project-specific GHG emissions by at least 29 percent compared to business as usual condition would have a less than significant individual and cumulative impact on global climate change.

The SJVAPCD methodology was developed primarily to address long-term operational activities of land use development projects (e.g., residential and commercial buildings). The SJVAPCD and Kern County have not established quantitative significance thresholds for the evaluation of construction-related GHG emissions and has not developed BPS related to the Proposed Project.

To establish additional context in which to consider the proposed project's GHG emissions, this analysis reviewed guidelines used by other experts and public agencies. Other districts, including the South Coast Air Quality Management District (SCAQMD) and the San Luis Obispo County Air Pollution Control District (SLOAPCD), have recommended that GHG emissions from construction and short-term sources be amortized over the lifetime of the project for comparison with significance thresholds (SCAQMD 2008, SLOAPCD 2012). For the analysis in this Initial Study, the construction GHG emissions would be amortized over the lifetime of the project (assuming a 30-year project life) and compared to the bright line emissions threshold of 900 metric tons (MT) CO_2e per year, in addition to construction-related BMPs, to evaluate the significance of these emissions. The most conservative threshold was included in the California Air Pollution Control Officers Association (CAPCOA) report, *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* (CAPCOA 2008), which recommends a threshold of 900 MT CO_2e per year for any residential, commercial, or industrial project. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has adopted a significance threshold for GHG emissions of 1,100 MT CO_2e per year that applies to construction and operational emissions (SMAQMD 2014). These significance thresholds were developed to assess consistency of a project's emissions with the statewide framework for reducing GHG emissions.

The impacts associated with the GHG emissions generated by the Proposed Project are related to the emissions from short-term construction and operations. Off-road equipment, materials transport, and worker commutes during construction of the proposed project would generate GHG emissions. Total construction-related GHG emissions were calculated using methods and assumptions described for criteria air pollutants, amortized over the proposed project's operational lifetime (30 years), and compared to the conservative CAPCOA threshold of 900 MT CO_2e. Total construction-related emissions for the Proposed Project would be 1,200 MT CO_2e. Once amortized over 30 years, the construction-related GHG emissions would be 40 MT

CO_2e[1]. Emissions generated by the proposed project during operations are related to indirect GHG emissions associated with energy from electricity use and direct GHG emissions as a result of regular testing and maintenance of the diesel-fired emergency generator. The direct GHG emissions associated with the emergency generator were estimated separately based on equipment specific fuel usage and emission factors (Milton CAT 2015, EPA 2015). Due to the relatively small size of the Proposed Project, diesel fuel consumption, and the associated energy use, operations-related GHG emissions generated by the project are 94 MT CO_2e per year. Appendix C provides additional modeling assumptions and details.

The total GHG emissions of 134 MT CO_2e for the Proposed Project would not exceed any of the adopted or recommended thresholds of significance discussed earlier in this section. The Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be less than significant.

b) **Less Than Significant Impact.**

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. It requires that statewide GHG emissions be reduced to 1990 levels by 2020. In December 2008, the CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which contains the main strategies California will implement to achieve the required GHG reductions required by AB 32 (CARB 2014).

The CARB approved the first update to the Scoping Plan in 2014 (CARB 2014). The 2014 Scoping Plan update includes a status of the 2008 Scoping Plan measures and other federal, state, and local efforts to reduce GHG emissions in California, and potential actions to further reduce GHG emissions by 2020. None of the measures listed in the 2014 Scoping Plan update directly relate to construction activity. While the Scoping Plan does include some measures that would indirectly address GHG emissions levels associated with construction activity, including the phasing in of cleaner technology for diesel engine fleets (including construction equipment), and the development of a Low Carbon Fuel Standard, successful implementation of these measures will predominantly depend on the development of future laws and policies at the state level. The Proposed Project would comply with any mandate or standards set forth by the 2014 Scoping Plan update.

In 2009, the SJVAPCD adopted a comprehensive regional policy and guidance on addressing and mitigating GHG emission impacts caused by industrial, commercial, and residential development in the San Joaquin Valley. As mentioned above, the SJVAPCD has not developed any BPS related to construction of the Proposed Project. The Proposed Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The impact would be less than significant.

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[1] Since SJVAPCD does not recommend a quantitative threshold for construction emissions, this analysis uses methodology consistent with other districts (e.g., SCAQMD; SLOAPCD), which recommend that GHG emissions from construction activities (and other short-term sources) be evaluated as part of the total project GHG emissions by amortizing total emissions during construction over a project's operational lifetime for comparison with long-term GHG emissions significance thresholds.

3.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒

The Proposed Project involves the installation of a new groundwater well and water transmission and distribution piping in existing rights-of-way and utility easements, and the removal of two existing water production wells. The majority of the land surrounding the Proposed Project is either dedicated to agriculture (crops and dairy), developed with residential structures and tracks, or vacant. The only hazardous materials associated with construction activities would be fluids and fuels associated with the operation of construction equipment and associated vehicles. No hazardous waste would be generated. There are no schools within 0.25 mile of the Proposed Project area. Short-term pollutant emissions generated by construction equipment are described in the Air Quality section (Section 3.3) of this Initial Study.

Impact Analysis

a) **Less Than Significant Impact.**

During construction and operation of the Proposed Project, hazardous substances used to maintain and operate construction equipment and personnel vehicles (such as fuel, lubricants, oil, and solvents) would be present. The use of these materials could potentially result in significant impacts through accidental discharge associated with their use and storage. These materials will be transported, used, and disposed of in accordance with applicable federal, state, and local laws, regulations, and protocols, designed to protect the environment, workers, and the public. In addition, the Proposed Project would comply with the NPDES Construction General Permit, as described in Section 3.6, Geology and Soils. Compliance with the NPDES Construction General Permit includes the implementation of a SWPPP to address the potential discharge of contaminants (including construction-related hazardous materials) through appropriate BMPs. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics (equipment types, etc.), they would include standard industry measures and guidelines contained in the NPDES Construction Permit. Based on implementation of appropriate BMPs to comply with the NPDES Construction General Permit, potential impacts associated with construction-related hazardous materials would be less than significant.

b) **Less Than Significant Impact.**

As described, the potential release of hazardous materials and emissions associated with the Proposed Project is limited to materials such as vehicle fuels, and small quantities of other materials typically needed for operation and maintenance of equipment (i.e., oil, lubricants, solvents). Given the size of the Proposed Project, the types of hazardous materials needed, and the limited amounts of these materials that will be required, any accidental spill is likely to be easily contained. Use of these materials would be conducted in accordance with all applicable federal, state, and local laws, regulations and protocols, which include requirements for secondary containment of hazardous materials and appropriate spill response procedures. In addition, potential impacts associated with construction-related hazardous materials would be reduced below a level of significance through required compliance with the NPDES Construction General Permit. Therefore, impacts would be less than significant.

c) **No Impact.**

No existing or proposed schools are present within 0.25 mile of the Proposed Project. Therefore, there is no impact.

d) **No Impact.**

A review of the California Department of Toxic Substances Control (DTSC) EnviroStor Database (DTSC 2016) indicates that the Proposed Project area is not a designated hazardous materials or former hazardous waste disposal site. Additionally, the alignment of the proposed water transmission and distribution pipeline is within existing rights-of-way and utility easements. Thus, no impacts would occur.

e) **No Impact.**

There are no public or private airports within 2.0 mile of the Proposed Project area. Therefore, no impacts would occur.

f) **No Impact**.

There are no private airstrips in the vicinity of the Proposed Project area. Therefore, no impacts would occur.

g) **No Impact**.

The Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Kern County 2009).

h) **No Impact**.

The majority of the land surrounding the Proposed Project area is either dedicated to agriculture (crops and dairy farming), developed with residential structures and tracks, or vacant. The proposed groundwater well, aboveground reservoir and ancillary equipment, and water transmission and distribution pipelines would not represent an increased risk of loss associated with wildland fires, as wildlands are not included within the Proposed Project area or present in the surrounding area.

3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
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)?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

The Proposed Project is intended to deliver potable drinking water originating at a new groundwater production well (Well #20) from LPUD to El Adobe residents. Potential water quality impacts associated with the Proposed Project would be limited to short-term temporary construction-related erosion/sedimentation. Based on the nature of the Proposed Project (i.e., installation of a potable groundwater well and water transmission and distribution pipeline system), no potential long-term impacts to water quality would occur.

Impact Analysis

a) **Less Than Significant with Mitigation.**

As required under the NPDES permit administered by the RWQCB, a SWPPP would be prepared and implemented for the Proposed Project. The plan would outline erosion control measures to be implemented to avoid and minimize potential erosion impacts to exposed soil associated with construction activities, as well as to control pollutants potentially released as a result of routine fueling and maintenance to construction equipment and vehicles during construction. Mitigation measures would be implemented to ensure that the Proposed Project does not violate applicable Kern County and State water quality standards or waste discharge requirements during grading and construction activities. With the mitigation measures described below, impacts would be less than significant.

b) **No Impact.**

The Proposed Project would not result in an increased demand of the groundwater supply or interfere with groundwater recharge. Table 5 summarizes projected demand and supplies (see Appendix A, Engineering Reports and LPUD Urban Water Management Plan) for LPUD with the addition of the EAPOA demand. No additional demand would be generated as the new groundwater production well (Well #20) would replace two existing groundwater wells currently in use by the EAPOA. No impacts would result.

Table 5. Projected Groundwater Demand and Supply.

	2010	2015	2020	2025	2030
LPUD Demand	3,649	3,894	4,068	4,412	4,759
EAPOA Demand	347	356	356	356	356
Groundwater Production (Supply)	11,070*	12,870	12,870	12,870	12,870

*2014 actual

c) **No Impact.**

The Proposed Project would not permanently alter existing drainage patterns. Surface conditions along the new water transmission pipeline alignment and distribution system within El Adobe temporarily disturbed during construction would be returned to pre-project conditions after pipeline installation. The site where the groundwater production well, aboveground reservoir, and ancillary equipment would be constructed is an existing disturbed site. Erosion and siltation that may result from construction related activities would be addressed by the Proposed Project contractor through implementation of BMPs for erosion and sediment control. No impacts would result.

d) **No Impact.**

The impervious surface created by the concrete pad for the wellhead infrastructure is minimal, and drainage can be conveyed using standard drainage BMPs. Surface conditions along the pipeline alignment will be returned to pre-existing conditions after pipeline installation with drainage patterns returning to pre-project conditions. No impacts would result.

e) **No Impact**.

The Proposed Project would not create nor would it contribute additional storm runoff. Surface conditions along the pipeline alignment will be returned to preexisting conditions after installation of the pipeline. The concrete pad for the wellhead infrastructure is minimal, and drainage can be conveyed using standard drainage BMPs. No impacts would result.

f) **No Impact**.

The Proposed Project would not violate water quality standards or waste discharge requirements. The Proposed Project is intended to deliver potable water supply. No impacts would result.

g) **No Impact**.

The Proposed Project does not include the development and construction of new housing. No impacts would result.

h) **No Impact**.

The site where the proposed groundwater production well (Well #20), aboveground water reservoir, and ancillary equipment would be constructed is not within an area subject to inundation by seiche, tsunami, or mudflow (City of Bakersfield 2002a). The site is within a Federal Emergency Management Agency (FEMA) designated 100-year flood plain area per their Flood Insurance Rate Maps (FIRMS) (FEMA 2016). However, the Proposed Project does not include the development and construction of new housing. Therefore, no impacts would occur.

i) **No Impact**.

The Proposed Project does not include the development and construction of new housing. No impacts would occur.

j) **No Impact**.

There are no bodies of water within the vicinity of the project area that have the potential to create a seiche, tsunami, or mudflow, nor does the Proposed Project include the development and construction of new housing. No impacts would occur.

Mitigation Measure HWQ-1: The project Contractor shall comply with the measures contained in the SWPPP to avoid and/or minimize erosion impacts on exposed soil during construction, as well as to control pollutants during construction.

Timing: During construction

Responsibility: EAPOA and its construction contractor

3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

The Proposed Project consists of the installation of underground water transmission and distribution pipelines, a groundwater production well, an aboveground water reservoir, and ancillary aboveground equipment.

Impact Analysis

a) **No Impact.**

Construction and operation of the Proposed Project does not represent a physical barrier within an established community. Construction of the pipelines primarily occurs within existing roadside rights-of-way and public utility easements, and infrastructure equipment will be constructed on a pre-disturbed approximately 3-acre vacant lot. No impacts would result.

b) **No Impact.**

The proposed water system upgrades are intended to support an existing neighborhood in an area zoned for Residential Suburban Combining and Mobile Homes in the Kern County General Plan. The Proposed Project area is governed by the policies, procedures, and standards set forth in the Metropolitan Bakersfield General Plan and the Kern County General Plan. Installation of the proposed water transmission and distribution pipelines would not conflict with the existing general plans. Construction of the pipelines primarily occurs within existing roadside rights-of-way and public utility easements. The proposed water system upgrades are intended to support an existing neighborhood in an area zoned for Residential Suburban Combining and Mobile Homes in the Kern County General Plan. The proposed groundwater production well site is zoned Low-Medium Density Residential in the Metropolitan Bakersfield General Plan; construction of the proposed groundwater well and associated facilities would preclude use of this approximately 3-acre parcel as a residential property. However, within the State of California, water system development projects are exempt from zoning ordinances (Government Code § 53091) which regulate the location or construction of facilities directly used for the production, generation, storage, or transmission of water; thus, the Proposed Project does not result in conflicts with existing land use plans or zoning ordinances and there would be no impacts.

c) **No Impact**.

The Proposed Project occurs within the boundaries of the Metropolitan Bakersfield HCP (City of Bakersfield 1994). The Metropolitan Bakersfield HCP is designed to acquire, preserve, and enhance native habitats which support listed and sensitive plant and wildlife species, while continuing to allow urban development as set forth in the 2002 Metropolitan Bakersfield General Plan updated January 20, 2016 (City of Bakersfield 2002a). The Proposed Project-related development would occur only within existing residential and agricultural zones and would have no impact on natural communities or habitat restoration areas; thus, there are no impacts associated to the Metropolitan Bakersfield HCP.

3.11 MINERAL RESOURCES

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

The Proposed Project consists of the installation of underground water transmission and distribution pipelines, a groundwater production well, an aboveground water reservoir, and ancillary aboveground equipment.

Impact Analysis

a) **No Impact.**

The Proposed Project is not within a mineral resource zone as defined in the Land Use Element of the Kern County General Plan (Kern County 2012). No impacts would result.

b) **No Impact.**

The Proposed Project is not within a mineral resource zone as defined in the Land Use Element of the Kern County General Plan (Kern County 2012). No impacts would result.

3.12 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Noise is generally defined as unwanted sound that disrupts normal activities or that diminishes the quality of the environment. The most common measurement of sound and environmental noise is the A-weighted decibel (dBA) scale, a logarithmic scale that ranges from 0 dBA to about 140 dBA and approximates the range of human hearing. The threshold of human hearing is about 0 dBA; less than 30 dBA is very quiet; 30-60 dBA is quiet; 60-90 dBA is moderately loud; 90-110 dBA is very loud; and 110-130 dbA is uncomfortably loud. A 10-decibel (dB) increase in sound levels is perceived as a doubling of the loudness. . L_{dn} is the average dBA noise level over a 24-hour period. Lastly, because noise levels fluctuate over time, equivalent continuous noise levels (L_{eq}) describe the sound levels that vary over time, resulting in a single dB value that takes into account the total sound energy over a specific period of time. Table 6 provides a comparison of common sound levels.

The water transmission pipelines would require trenching along various roads that are within residential areas (Figures 4-A and 4-B). Well drilling, construction of the aboveground reservoir, and installation of the ancillary equipment would occur on a 3-acre vacant lot located adjacent to residences on Field Street, Boozer Avenue, and Dunsmere Street (Figure 4-A). Noise levels generated by heavy construction equipment are variable dependent on the type of equipment and whether the equipment is operating at full power, lower power, idling, or is powered-off. Typically, the noise levels are temporary and short-termed with hourly L_{eq} that are lower than the maximum operational noise levels (Table 7).

Table 6. Comparative sound levels*.

Source	Sound Level (dB)
Shotgun/Rifle/Handgun; fireworks (at 3 feet)	≥160
Artillery fire (at 500 feet); firecracker	150
Jet engine at take-off	140
Air raid siren; pneumatic riveter; stock car races	120-130
Heavy machinery; chainsaw; balloon popping; rock band concert	110-120
Hand drill; snow mobile; motorcycle; power saw (at 3 feet)	100-110
Power lawnmower; truck traffic; jackhammer at 50 feet; food processor; belt sander	90-100
Level at which sustained exposure may result in hearing loss	**90-95**
Alarm clock; garbage disposal; city traffic (inside car); snow blower	80-85
Toilet flushing; vacuum cleaner; dishwasher; shower	70-75
Conversational speech; air conditioner	60-65

Sources: Table compiled from various sources including noisequest.com, noisehelp.com, industrialnoisecontrol.com, and www.dot.ca.gov.

Table 7. Construction Equipment Noise Levels

Equipment	Noise Level (dBA) at 50 ft)
Backhoe	80
Drill rig	80
Excavator	85
Loader	80
Roller	85
Paving	85
Heavy-duty truck	85

Impact Analysis

a) **Less Than Significant Impact.**

Kern County does not provide a construction noise level limit, but rather a limit on when construction activities that produce noise can occur, as described above (Kern County Code of Ordinances). Because construction would not occur during night hours (i.e., between the hours of 9 p.m. and 6 a.m.) or on weekends, the Proposed Project would not exceed County standards, and impacts would be less than significant. Typical construction noise reduction measures to reduce and minimize noise during construction include:

- Use of intake and exhaust mufflers on pneumatic impact tools and equipment, as recommended by the manufacturers.
- Use of noise attenuating shields, shrouds, or portable barriers or enclosures for impact noise-producing equipment such as jackhammers and pavement breakers.

- Use of upgraded mufflers, acoustical lining, or acoustical paneling with noisy equipment and internal combustion engines.
- Use construction equipment designed to reduce noise emissions, such as:
  - Electric-powered equipment (instead of diesel-powered).
  - Hydraulic tools (instead of pneumatic tools).
  - Electric saws (instead of air- or gasoline-driven saws).

During operation of the new water system, noise would be generated by an electric air compressor (7.5 horsepower [hp]), an electric well pump motor (150 hp), three electric booster pump motors (60 hp each), and an emergency standby natural gas generator (350 kilowatts) that would be sited within the 3-acre vacant lot (see Figure 4-A). This equipment would be housed within sound attenuating roll-away buildings, which would minimize the noise and not result in an exceedance of the Kern County General Plan standard of 65 dBA noise level. Impacts would be less than significant.

b) **No Impact**.

The Proposed Project does not include components that would result in groundborne vibration that could be discernible at neighboring noise-sensitive receptors. Equipment in use during construction may result in small levels groundborne vibration. A dozer and excavator could create vibration impacts at a distance of 50 and 25 feet, respectively; neither of these pieces of equipment would operate within such distances of the adjacent property lines. The well-boring machine could create vibration impacts at or greater than the threshold of significance; however, it would not do so at the surface of adjacent property lines. In addition, as the drill tip burrows deeper, vibrations would be attenuated by the time they reached the surface. No impacts would occur.

c) **Less Than Significant Impact**.

During operation of the new water system, noise would be generated by an electric air compressor (7.5 horsepower [hp]), an electric well pump motor (150 hp), three electric booster pump motors (60 hp each), and an emergency standby natural gas generator (350 kilowatts) that would be sited within the 3-acre vacant lot (see Figure 4-A). This equipment would be housed within sound attenuating roll-away buildings, which would minimize the noise and not result in an exceedance of the Kern County General Plan standard of 65 dBA noise level. Impacts would be less than significant.

d) **Less Than Significant Impact**.

Construction of the Proposed Project would result in short-term, temporary elevated noise. However, implementation of typical construction noise reduction measures to reduce and minimize noise during construction would make the impact less than significant.

e) **No Impact**.

The Proposed Project would not be located within an airport land use plan area per the Kern County General Plan (Kern County 2009). No impacts would occur.

f) **No Impact**.

The Proposed Project would not be located within the vicinity of a private airstrip per the Kern County General Plan (Kern County 2009). No impacts would occur.

3.13 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The Proposed Project is intended to deliver potable drinking water originating at a new groundwater production well (Well #20) from LPUD to El Adobe residents.

Impact Analysis

a) **No Impact**.

The Proposed Project does not propose new homes or businesses, nor will it establish infrastructure that could result in population growth in the area. Installation of the new well, pipeline, and ancillary equipment are designed to serve an existing community and would not facilitate future residential growth. No impacts would result.

b) **No Impact**.

The Proposed Project does not require the displacement of existing housing. No impacts would result.

c) **No Impact**.

The Proposed Project does not require the displacement of existing residents. No impacts would result.

3.14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Per Kern County Code of Ordinances (Kern County 2015), Title 17 (Buildings and Construction), Chapter 17.32 (Fire Code) water lines serving more than a single fire hydrant must be a minimum of 8 inches in diameter. Record drawings indicate that the existing EAPOA pipeline system consists of 4-inch pipes, which does not meet current fire code requirements.

Impact Analysis

a) **No Impact**.

Fire Protection - The proposed water distribution pipeline system within El Adobe would be replaced with an 8-inch pipeline in compliance with the Kern County Fire Code, and 24 new fire hydrants would be installed. No impact would result.

Police Protection - Construction and operation of the new water distribution system would not require increased public services. No impact would result.

Schools – The Proposed Project would place no demand on school services because it would not involve the construction of facilities that require such services (i.e., residences) and would not involve the introduction of a temporary or permanent population into the area. No impact would result.

Parks – The Proposed Project would place no demand on parks because it would not involve the construction of facilities that require such services (i.e., residences) and would not involve the introduction of a temporary or permanent population into the area. No impact would result.

Other Public Facilities – The proposed project would not result in the introduction of a temporary or permanent human population into the area. No impact would result.

3.15 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.**

The Proposed Project would not induce growth or result in the increased use of existing recreational facilities. No impacts would occur.

b) **No Impact.**

The Proposed Project does not involve the construction or expansion of recreational facilities. No impacts would occur.

3.16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Impact Analysis

a) **Less Than Significant Impact.**

The Proposed Project does not conflict with applicable plans, ordinances, or policies; the minimum level of service D, as established under the Kern County Circulation Element of the General Plan (Kern County 2009), nor is it located within a major highway or route of regional significance within Kern County. The Proposed Project would result in a short-term increase in traffic during construction. Proposed Project-related construction traffic would include deliveries of equipment and materials, transportation of solid waste, and commutes by personnel traveling to and from the work site. Additionally, during pipeline installation, the associated trenching, installation of pipes, backfilling and repaving would affect traffic on roadways due to required lane closures or the diversion of traffic around construction areas. Roadways would be returned to pre-construction condition. To ensure impacts from temporary lane closures and diversions of traffic are not significant, the EAPOA or its contractor would prepare and implement a Traffic Control Plan. Access to adjacent residences would be maintained and no driveway closures would be required. Nearby residents would be notified a minimum of 2 weeks in advance of Proposed Project construction. It is anticipated that the long-term increase in vehicle traffic during operation of the new water system, would be minimal, and

primarily associated with monthly maintenance visits for equipment inspections. Impacts would be less than significant.

b) **No Impact**.

It is anticipated that the long-term increase in vehicle traffic during operation of the new water system, would be minimal, and primarily associated with monthly maintenance visits for equipment inspections. The Proposed Project would have no impact on the level of service or other standards established by the county congestion management agency for designated roads or highways.

c) **No Impact**.

The Proposed Project would not include any aviation components or structures where height would be an aviation concern that could affect air traffic patterns. No impacts would occur.

d) **No Impact**.

The Proposed Project would not include site modifications that would result in hazards due to design features nor would it cause incompatible uses on local roads. No impacts would occur.

e) **Less Than Significant Impact**.

In the event of an emergency, access would not be obstructed by construction activities. Construction operations would be performed with the implementation of traffic control measures (Traffic Control Plan) that would allow for emergency access. The Traffic Control Plan would be prepared and submitted to Kern County Department of Public Works with the application for the encroachment permit and include measures including signage and flaggers to direct drivers ensure emergency services have access during traffic restriction periods. Impacts would be less than significant.

f) **No Impact**.

The Proposed Project would not affect pedestrian sidewalks, bicycle facilities, or bus stops/routes, and thus have no impacts in respect to these resources.

3.17 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

With respect to groundwater supplies to serve EAPOA demand, Table 8 contains a summary of the service area information. For water system demand calculations, vacant lots are assumed to contain a single family residence (build out condition). No data is available on the current EAPOA system demand, as neither wells nor service connections are metered. As a result, similar water systems were used to establish an average day demand (ADD) per connection (per 22 California Code of Regulations [CCR] § 64554(b)(4)). The systems chosen included East Wilson Road Water Company, Wilson Road Water Company, LPUD, and Greenfield County Water District (GCWD). All four of these water systems operate at approximately the same elevation and service rural communities. East Wilson Road and Wilson Road water companies service small systems with lot sizes approximately the same as El Adobe and were previously studied by the California Department of Public Health (CDPH) for another Proposition 84 project. LPUD and GCWD generally service smaller size residential parcels, but have a greater number of service connections (see Table 9).

Comparison of aerial photographs show that the East Wilson Road and Wilson Road water companies are generally less vegetated than El Adobe residences, indicating that El Adobe residences may have greater water use. Service connections are 1-inch in diameter, and many residents grow corn and/or raise livestock. Because of this, it is estimated that the existing demand per connection within El Adobe is 2,000 gallons per day (gpd) (AECOM 2013; see Appendix A).

Table 8. Population and Service Connections.

Characteristic	El Adobe
Service Connections	81
Vacant Lots	2
Project Service Connections at Build Out	83
Estimated Population	250
Population Density (persons/residence)	3.1
Projected Population at Build Out	256

Table 9. ADD per Connection for Similar Water Systems.

	East Wilson Road Water Company	Wilson Road Water Company	LPUD	GCWD
Service Connections	13	20	3,448	2,679
Population Density (persons/residence)	4.2	2.9	3.9	3.2
Lot Size (average)	2 acres	2 acres	6,000 ft^2	6,000 ft^2
Water Use per Person (gpcd)	438	349	295	269
ADD per Connection (gpd)	1,840	1,012	1,152	860

Notes:
gpcd = gallons per capita daily
gpd = gallons per day
1 acre = 43,560 ft^2

Impact Analysis

a) **No Impact.**

The Proposed Project does not require the construction or expansion of wastewater facilities, thus it would not affect or exceed applicable wastewater treatment requirements. No impacts would occur.

b) **No Impact.**

The Proposed Project would not require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities. No impacts would occur.

c) **No Impact.**

The Proposed Project would not require the construction or expansion of storm water drainage facilities. No impacts would occur.

d) **No Impact.**

Water required during construction activities would be provided by water trucks. The existing water services to El Adobe are not metered, and residences currently pay a flat monthly fee regardless of water usage. The Proposed Project would install meters at each service; as a result, it is expected that demand per connection

would decrease. For purposes of this study, it is assumed that demand would decrease 15 percent after project completion, which sets ADD at 1,700 gpd per connection.

Table 10 summarizes the estimated current and projected system demand for El Adobe. Maximum day demand (MDD) and Peak Hour Demand (PHD) are calculated per California Waterworks Standards (22 CCR § 64554). Fire flow requirements are taken from the Kern County Fire Code (Kern County Code of Building Regulations 17.32) for residential developments. Projected demand assumes that the two vacant lots would be developed to each include a single family residence.

Table 10. Current and Projected EAPOASystem Demand.

Service Connections		81	83
Demand per Connection	ADD (gpd)	1,700	
	MDD (gpd)	3,825	
	MDD (gpm)	2.7	
	PHD (gpd)	5,738	
	PHD (gpm)	4.0	
Demand for Service Area	MDD (gpd)	309,825	317,475
	MDD (gpm)	215	220
	PHD (gpm)	323	331
Fire Flow (gpm)		500	500

Notes:
MDD = 2.25 x ADD
PHD = 1.5 x MDD
Fire flow is 500 gpm for a duration of 1 hour.

The EAPOA requested annexation of its new water delivery system to the LPUD. LPUD is a public utility district with approximately 3,100 service connections. The following source capacity analysis examines the ability of the LPUD's ability to serve the EAPOA. Descriptions of the LPUD existing source capacity are summarized from the 2012 Annual Inspection Report prepared by CDPH (CDPH 2012).

California Waterworks Standards require that water systems with more than 1,000 connections provide 4 hours of PHD (22 CCR § 64554(a)(1)) and meet MDD without highest production well in service (22 CCR § 64554(c)). LPUD uses seven active groundwater wells and three storage tanks to meet the water system demand. Table 11 describes ADD, MDD, and PHD during the last 10 years. MDD was calculated using the maximum month and a peaking factor of 1.5. PHD was calculated using MDD and a peaking factor of 1.5.

To estimate the ADD, MDD, and PHD for the system, the highest water usage during the last 10 years is used (22 CCR § 64554(b)(1)). In this case, the last 7 years were used because they are representative of the source capacity available since Well No. 18 was drilled and placed online. Based on Table 11, 2007 was the year with the highest demand within the last 7 years, with an ADD, MDD, and PHD of approximately 2,759 gpm, 6,384 gpm and 9,577 gpm, respectively.

Table 11. LPUD Existing System Demand.

Year	ADD (gpm)	MDD (gpm)	PHD (gpm)
2011	2,405	5,376	8,065
2010	2,263	4,872	7,308
2009	2,004	4,066	6,099
2008	2,616	5,746	8,619
2007	2,759	6,384	9,577
2006	2,283	5,612	8,417
2005	3,240	5,981	8,972
2004	2,877	7,661*	11,492*
2003	3,573	7,728*	11,593*
2002	3,425	7,997*	11,996*

Notes:
**The maximum day and peak hour figures appear to be inconsistent with data from the last 7 years.*

LPUD's storage consists of three ground level storage tanks with a total storage capacity of 740,000 gallons. The combined capacity of the seven active sources (wells) is approximately 9,150 gpm. Together (wells and storage) there is sufficient capacity to meet the existing 4-hour PHD requirement. In the event that the largest producing well (Well No. 15) was offline, the available source capacity would be 7,600 gpm, which would still allow the LPUD's remaining sources to meet MDD.

Under the Proposed Project, the EAPOA water system for El Adobe would be integrated into the LPUD water system, resulting in an increased demand and source capacity (see Table 12). The existing LPUD system has sufficient capacity with wells and storage to meet the projected 4-hour PHD requirement with the addition of El Adobe's projected demand. Even if the largest producing well was offline, the remaining wells and storage have capacity to meet MDD while serving El Adobe.

Table 12. LPUD Projected System Demand and Source Capacity with EAPOA Incorporated.

	MDD (gpm)	PHD (gpm)
Existing LPUD (from Table 4)	6,384	9,577
EAPOA Increase (from Table 3)	220	331
Projected LPUD	6,604	9,908

The purpose of the Proposed Project is to provide El Adobe residents with a potable drinking water supply. EAPOA has two wells located within their service area, Wells Nos. 1 and 2 (see Figure 4-B), that tested positive for arsenic in the amounts of 6 parts per billion (ppb) and 20 ppb, respectively. Well No. 1 also tested positive for higher concentrations of uranium, total dissolved solids, and specific conductance. These results suggest that it may not be possible to locate a well in the vicinity of the service area that avoids all contaminants (Kenneth D. Schmidt and Associates 2013). Based on these findings, EAPOA pursued consolidating their water system with LPUD and constructing a new well to ensure future capacity within the

LPUD service area was not adversely affected. The closest LPUD wells to El Adobe are Wells Nos. 5 and 11, both of which contain average arsenic concentrations of 9 ppb and 6 ppb, respectively. Given that these two wells are of the same age and well below the maximum contaminant level, a groundwater well site was identified and tested south of Dunsmere Street and north of Boozer Avenue, and east of Field Street and west of SR 184 (see Figure 4-A). Results from the test well indicated that a well at this site to a depth of 920 feet would supply safe potable drinking water capable of producing between 1,200 and 1,400 gpm. Based on the discussion and analysis above in combination with the addition of Well No. 20 into the LPUD water system, impacts from the Proposed Project on water supply would be less than significant.

e) **No Impact**.

The Proposed Project would not generate new wastewater that may affect the wastewater treatment provider's capacity. No impacts would occur.

f) **No Impact**.

Small quantities of solid waste associated with the Proposed Project would be generated during construction and include waste generated by construction crews, construction and demolition debris, and clean inert waste. All solid waste generated by the Proposed Project during construction would be handled in accordance with applicable Federal, State, and local statutes and regulations. Construction and demolition debris would be recycled to the extent feasible. All other solid waste would be disposed of at a Kern County Public Works Department disposal facility. The current capacity available at Kern County landfills is adequate to accommodate the small volumes of waste generated during construction activities. As a result, no impacts would occur.

g) **No Impact**.

The Proposed Project would comply with all applicable, federal, state, and local statutes and regulations related to solid waste. No impact would occur.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	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, substantially 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?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.**

Based on the biological resources technical report, the Proposed Project would not occur within native habitats. While the groundwater production well, aboveground reservoir, and ancillary equipment would be constructed on a 3-acre lot currently vacant of development, the vegetation present in the lot is mostly ruderal in nature and does not provide suitable habitat for most wildlife species. The water transmission pipeline and distribution pipelines would all be installed within existing rights-of-way and public utility easements that are located within roads and road shoulders, where vegetation is ruderal and weedy in nature and does not provide suitable habitat for most wildlife species. Therefore, construction of the Proposed Project would not reduce habitats for fish and wildlife species, nor would it result in the reduction of populations below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of rare or endangered plants or animals. Likewise, there are no historical or prehistorical sites within the Proposed Project area. No impacts would result.

b) **No Impact.**

Potential significant impacts of the Proposed Project (biological resources, cultural resources, hydrology and water quality) would be reduced to less than significant with implementation of mitigation measures. Based on the analysis provided in this Initial Study, the Proposed Project would not result in impacts that are individually or cumulatively considerable or significant when viewed in relation to past, present or probable future projects. No impacts would result.

c) **No Impact**.

With the exception of short-term, temporary increase in noise during construction, the Proposed Project would no result in adverse effects on human beings, either directly or indirectly. In fact, the Proposed Project would be beneficial for the residents of El Adobe in that it would deliver safe potable drinking water to the community, without increased levels of contaminants as is the current situation. Therefore, no impacts would occur.

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