

Initial Study/Proposed Mitigated Negative Declaration

## **Shafter-Wasco Irrigation District Leonard Avenue Conveyance Improvement Project**



Prepared for:



Shafter-Wasco Irrigation  
District

January 2020

Prepared by:



Initial Study/Proposed Mitigated Negative Declaration

## **Shafter-Wasco Irrigation District Leonard Avenue Conveyance Improvement Project**

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January 2020

Project No. 1904700

# PROPOSED MITIGATED NEGATIVE DECLARATION

**Project: Shafter-Wasco Irrigation District Leonard Avenue Conveyance Improvement Project**

**Lead Agency: Shafter-Wasco Irrigation District (SWID)**

## PROJECT LOCATION

The proposed project area is located within SWID, approximately 4 miles southwest of Wasco, Kern County, California.

## PROJECT DESCRIPTION

The proposed project would install a new 1.5-mile-long, 20 cubic feet per second, 27-inch bi-directional polymerized vinyl chloride pipe in the Kern County road right-of-way (ROW) on the north side of Merced Avenue and the west side of Leonard Avenue. The new Leonard Avenue pipeline will begin at the intersection of Magnolia Avenue and Merced Avenue, where it will connect to an existing SWID lateral. The new pipeline will travel approximately 1 mile west along Merced Avenue, to the intersection with Leonard Avenue. The pipeline will then turn south and follow Leonard Avenue for approximately 0.5 mile, terminating at an unimproved farm road where it will connect to the SWSD distribution system. The pipeline will also connect to four existing, 8-inch SWID turnouts: one near the corner of Merced Avenue and Magnolia Avenue and three near the corner of Merced Avenue and Western Avenue. Additionally, a one-half mile section of existing, obsolete concrete pipe along the south side of Merced Avenue, between Magnolia Avenue and Western Avenue, will be capped and abandoned in place. SWID would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW.

The new pipeline will be installed in a trench approximately 7-feet deep, on lands previously disturbed during road construction. All work and equipment staging will take place within an up to 60-foot-wide construction corridor. The construction corridor maximizes available space within the County road ROW and ensures that no adjacent agricultural crops would be removed. The total project site, including construction limits, is 11.28 acres. Areas surrounding the project site consist of agricultural lands currently in orchard and vineyard production. As mentioned previously, construction activities would not require the removal of any orchard or vineyard crops.

Construction activities include excavation of soils to install all buried pipe. All trenches will be backfilled with excavated material, ensuring all pipelines receive 4 feet of cover, and the ground over the new pipeline will be restored to its existing grade. A very small amount of spoils may need to be disposed of offsite at an approved facility. A 10-foot-wide permanent easement will be obtained within the County road ROW to allow for maintenance of the pipeline by SWID.

## FINDINGS

An Initial Study (IS) was prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the IS, it has been determined that the proposed project would not result in significant adverse effects on the physical environment after implementation of proposed mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no impacts on agriculture and forestry resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.
2. The proposed project would have less-than-significant impacts on aesthetics, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities and service systems.
3. The proposed project would have potentially significant impacts on air quality, biological resources, cultural resources, Tribal cultural resources, and geology and soils, but mitigation measures are proposed to avoid or reduce these effects to less-than-significant levels.
4. The proposed project would not have the potential to substantially 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 an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.
5. The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
6. The proposed project would not have possible environmental effects that are individually limited but cumulatively considerable and contribute to a significant cumulative impact. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
7. The environmental effects of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.

Following are the proposed mitigation measures that would be implemented to avoid or minimize potentially significant and significant environmental impacts. Implementation of these mitigation measures would reduce the potentially significant and significant environmental impacts of the proposed project to less-than-significant levels. The responsibility for implementation of each mitigation measure is identified; however, SWID is ultimately responsible for ensuring each measure is implemented.



### **Mitigation Measure AQ-1: Develop Dust Control Plan.**

SWID (or their designated contractor) will develop a Dust Control Plan to submit to the San Joaquin Air Pollution Control District within 10 working days prior to the start of any construction activity. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Dust Control Plan.

<b>Timing:</b>	Before construction activities
<b>Responsibility:</b>	SWID

### **Mitigation Measure BIO-1: Avoid Potential Impact on San Joaquin Kit Fox.**

To minimize potential effects of project construction on San Joaquin kit fox, SWID will ensure that the following measures are implemented, consistent with *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011).

- Before project activities begin, an Environmental Awareness Program will be presented to all project personnel working on the project site. The program will be conducted by a qualified biologist with knowledge of San Joaquin kit fox. The program will address the following: biology and habitat needs; regulatory status and protection; measures required to reduce potential impacts during project construction; penalties for non-compliance; and benefits of compliance.
- Project activities will only occur during the day (between 30 minutes before sunrise and 30 minutes after sunset).
- A qualified biologist will conduct a pre-construction San Joaquin kit fox survey of the action area. The survey will be conducted no more than 30 days before project activities begin. If potential dens for San Joaquin kit fox are found, exclusion zones will be established before project activities begin, in accordance with the Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox (USFWS 2011).
- To prevent entrapment of San Joaquin kit fox during construction, all excavated, steep-walled holes or trenches more than 2 feet deep will be covered with plywood or similar materials at the end of each work day. If the trenches cannot be closed, one or more escape ramps of no more than a 45-degree slope will be constructed of earthen-fill or created with wooden planks. All covered or uncovered excavations will be inspected at the beginning, middle, and end of each day. Before trenches are filled, they will be inspected for trapped animals. If at any time a potential San Joaquin kit fox is discovered, project activities in the immediate vicinity will stop, a qualified biologist will be summoned to identify the species, and USFWS will be notified. Escape ramps or structures will be installed immediately to allow the animal(s) to escape. If a San Joaquin kit fox is unable to escape voluntarily, USFWS will be contacted immediately.
- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored on the ground at a construction site for one or more overnight periods will be thoroughly inspected for wildlife before the pipe is buried, capped, or otherwise used or moved

in any way. Pipes laid in trenches overnight will be capped. If a potential San Joaquin kit fox is discovered inside a pipe, all project activities that could result in take will stop, a qualified biologist will be summoned to identify the species, and USFWS will be notified. If a San Joaquin kit fox is unable to escape voluntarily, USFWS will be contacted immediately.

**Timing:** Before and during construction activities  
**Responsibility:** SWID

### **Mitigation Measure CUL-1: Avoid Potential Effects on Undiscovered Historical Resources and Unique Archaeological Resources.**

To minimize the potential for significant impacts to undiscovered historical resources and unique archaeological resources during project-related ground-disturbing activities, SWID and its construction contractor(s) will implement the following measures:

- If cultural resources are discovered during project-related ground-disturbing activities, then all construction activities that may damage the discovery will stop within 100 feet of the discovery and SWID will be immediately notified. SWID will hire a qualified archaeologist to determine if the discovery is an historical resource or unique archaeological resource per CEQA. If necessary, the qualified archaeologist will develop a testing plan to determine if the discovery meets significance criteria for a historical resource or unique archaeological resource; any testing plan will not be implemented until review by SWID.
- If the discovery is determined not to be either an historical resource or unique archaeological resource, then construction in the area of the discovery may continue.
- If the discovery is determined to meet significance criteria, then the qualified archaeologist will develop and implement a treatment plan in consultation with SWID to mitigate any significant impacts to the discovery; preservation in place is the preferred mitigation measure. Work in the area of the discovery will not continue until treatment is completed.

**Timing:** During construction activities  
**Responsibility:** SWID

### **Mitigation Measure CUL-2: Avoid Potential Effects on Undiscovered Burials.**

To minimize the potential for destruction of or damage to undiscovered burials during project-related earthmoving activities, SWID and its construction contractor(s) will implement the following measures:

- In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all ground-disturbing work potentially damaging excavation in the area of the burial and a 100-foot radius shall halt and the Kern County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall designate a Most Likely Descendant for the human remains. After the coroner's findings have

been made, an archaeologist meeting the Secretary of the Interior’s Professional Standards for Archaeologists and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities of Kern County for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.9.

- Native American human remains, associated grave goods, and items associated with Native American human remains that are subject to California PRC Section 5097.98 will not be subjected to scientific analysis, handling, testing, or field or laboratory analysis without written consent from the Most Likely Descendant. If human remains are present, treatment shall conform to the requirements of state law under California Health and Safety Code Section 7050.5 and PRC Section 5097.87, unless the discovery occurs on federal land. SWID agrees to comply with other related state laws, including PRC Section 5097.9.

**Timing:** During construction activities  
**Responsibility:** SWID

**GEO-1: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan, as Required.**

To minimize the potential for destruction of or damage to potentially unique, scientifically important paleontological resources during earthmoving activities associated with pipeline construction, SWID will implement the measures described below:

- Before the start of construction activities, construction personnel involved with earthmoving activities (including the site superintendent) shall be informed of the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction activities, and proper notification procedures should fossils be encountered. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.
- If paleontological resources are discovered during earthmoving activities, the construction crew shall notify SWID and shall immediately cease work in the vicinity of the find. SWID shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology Guidelines (Society of Vertebrate Paleontology 1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by SWID to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

**Timing:** Before and during construction activities  
**Responsibility:** SWID

## **TCR-1: In the Event Tribal Cultural Resources are Revealed during Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Impacts**

SWID shall implement the following measures:

- Culturally affiliated Tribes will be further consulted concerning Tribal Cultural Resources that may be impacted if these types of resources are discovered during construction. Further consultation with culturally affiliated Tribes will focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. Should a Tribal Cultural Resource be identified in the project area during construction, the following performance standards shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of a Tribal Cultural Resource:
- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with consulting Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing on the CRHR, SWID will avoid damaging effects to the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible. If SWID determines that the proposed project may cause a significant impact to a Tribal Cultural Resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a Tribal Cultural Resource or alternatives that would avoid significant impacts to a Tribal Cultural Resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than-significant may be reached:
  - i. Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - ii. Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - a. Protect the cultural character and integrity of the resource.
    - b. Protect the traditional use of the resource.
    - c. Protect the confidentiality of the resource.
    - d. Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
    - e. Protect the resource.

- **Timing:** During construction activities
- **Responsibility:** SWID

# INITIAL STUDY

## PROJECT INFORMATION

1. Project title:	Shafter-Wasco Irrigation District Leonard Avenue Conveyance Improvement Project
2. Lead agency name and address:	Shafter-Wasco Irrigation District P.O. Box 1168 Wasco, CA 93280
3. Contact person and phone number:	Dana Munn, General Manager, 661-758-5153
4. Project location:	The proposed project area is located within SWID, approximately 4 miles southwest of Wasco, Kern County, California (Figure 1).
6. General plan designation:	Intensive agriculture (min. 20-acre parcel size)
7. Zoning:	A (Exclusive Agriculture)
8. Description of project:	See Section 2.1
9. Surrounding land uses and setting:	The surrounding land use is almost exclusively active agricultural land with scattered rural residences. The City of Wasco is located to the northeast of the proposed project site.
10. Other public agencies whose approval may be required or requested (e.g., permits, financing approval, or participation agreement):	U.S. Department of the Interior, Bureau of Reclamation financing approval; Central Valley Regional Water Quality Control Board Construction Activities General Permit; San Joaquin Valley Air Pollution Control Board Dust Control Plan
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?	GEI Consultants, Inc (GEI) archaeologist, Jesse Martinez, contacted the Native American Heritage Commission (NAHC) on October 8, 2019, to request a search of the Sacred Lands Database and a California Environmental Quality Act consultation list. The NAHC responded October 29, 2019 and stated the Sacred Lands File search was negative. There are no Tribes that have requested consultation on SWID projects, under AB 52.

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Appendix A. Biological Resources Technical Report

Appendix B. Cultural Resources Technical Report

# Acronyms and Abbreviations

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AFY	acre feet per year
BMP's	Best Management Practices
CCR	California Code of Regulations
CalFire	California Department of Forestry and Fire Protection
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CVP	Central Valley Project
DPR	Department of Parks and Recreation
DOC	California Department of Conservation
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
Farmland	Farmland of statewide Importance
FEMA	Federal Emergency Management Agency
HCP	Habitat Conservation Plan
IS/MND	Initial Study/Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
NCCP	Natural Community Conservation Plan
PM	Particulate Matter
PRC	Public Resources Code
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SSJVIC	South San Joaquin Valley Information Center
SWID	The Shafter-Wasco Irrigation District
SWRCB	State Water Resources Control Board
SWSD	Semitropic Water Storage District
USFWS	U.S. Fish and Wildlife Service



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# Chapter 1. Introduction

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The Shafter-Wasco Irrigation District (SWID) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the potentially significant environmental impacts of the proposed Leonard Avenue Conveyance Improvement Project (proposed project) near Wasco, California. SWID is the lead agency under CEQA.

This document includes:

- an IS (Initial Study) to satisfy CEQA requirements
- a proposed MND to satisfy CEQA requirements
- a Notice of Availability and intent to adopt an MND for the proposed project

After the required public review of this document is complete, SWID will consider adopting the proposed MND and a Mitigation Monitoring and Reporting Program and will decide whether to proceed with the proposed project.

## 1.1 Purpose of the Initial Study

This document is an IS/MND prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.) and the state CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations [CCR]). The purpose of this IS is to (1) determine whether proposed project implementation would result in potentially significant or significant impacts on the physical environment; and (2) incorporate mitigation measures into the proposed project design, as necessary, to eliminate the proposed project's potentially significant or significant project impacts or reduce them to a less- than-significant level. An MND is prepared if the IS identified potentially significant impacts, but revisions in the proposed project plan or proposal mitigate the impacts to a point where no significant impacts would occur; and there is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a potentially significant or significant impact on the physical environment.

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 potentially significant and significant environmental impacts of projects 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 proposed project is the lead agency for CEQA compliance (CEQA Guidelines, CCR Section 15367). SWID has principal responsibility for carrying out the proposed project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (such as the findings of an IS) that a proposed project, either individually or cumulatively, may have a significant or potentially significant impact on the physical environment, the lead agency must prepare an EIR (CEQA Guidelines, CCR Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the applicant (SWID) would clearly reduce impacts to a less-than-significant level, a Negative Declaration or MND can be prepared.

SWID has prepared this IS to evaluate the potential environmental impacts 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 proposed project.

## 1.2 Summary of Findings

Chapter 3 of this document contains analysis and discussion of potential environmental impacts of the proposed project. Based on this evaluation, it was determined:

The proposed project would result in no impacts on the following issue areas:

- Agriculture and Forestry Resources
- Energy
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Wildfire

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

- Aesthetics
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Transportation
- Utilities and Service Systems

The proposed project would result in less-than-significant impacts *after* mitigation implementation on the following issue areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Tribal Cultural Resources

## 1.3 Document Organization

This document is divided into five key sections:

**Chapter 1, “Introduction,”** describes the purpose of the IS/MND, summarizes findings, and describes the organization of this IS.

**Chapter 2, “Project Description,”** describes the project location and background, project need and objectives, project characteristics, construction activities, project operations, and discretionary actions and approvals that may be required.

**Chapter 3, “Environmental Checklist,”** presents an analysis of environmental issues identified in the CEQA Environmental Checklist and determines whether project implementation 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 physical environment in each issue area. Should any impacts be determined to be potentially significant or significant with mitigation incorporated, 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 less-than-significant levels.

**Chapter 4, “References,”** lists the references used to prepare this IS.

**Chapter 5, “Report Preparers,”** identifies individuals who helped prepare or review this document.

## Chapter 2. Project Description

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### 2.1 Project Background and Need

The SWID is located in the southern San Joaquin Valley, in Kern County (County), approximately 20 miles northwest of Bakersfield (Figure 1). SWID's service area includes approximately 39,000 acres, with approximately 32,600 irrigated acres (84 percent of the service area) (**Figure 1**). A cost-share funding agreement was recently executed between the Bureau of Reclamation (Reclamation) and SWID. The proposed project is funded under Reclamation Agreement #R19AP00258.

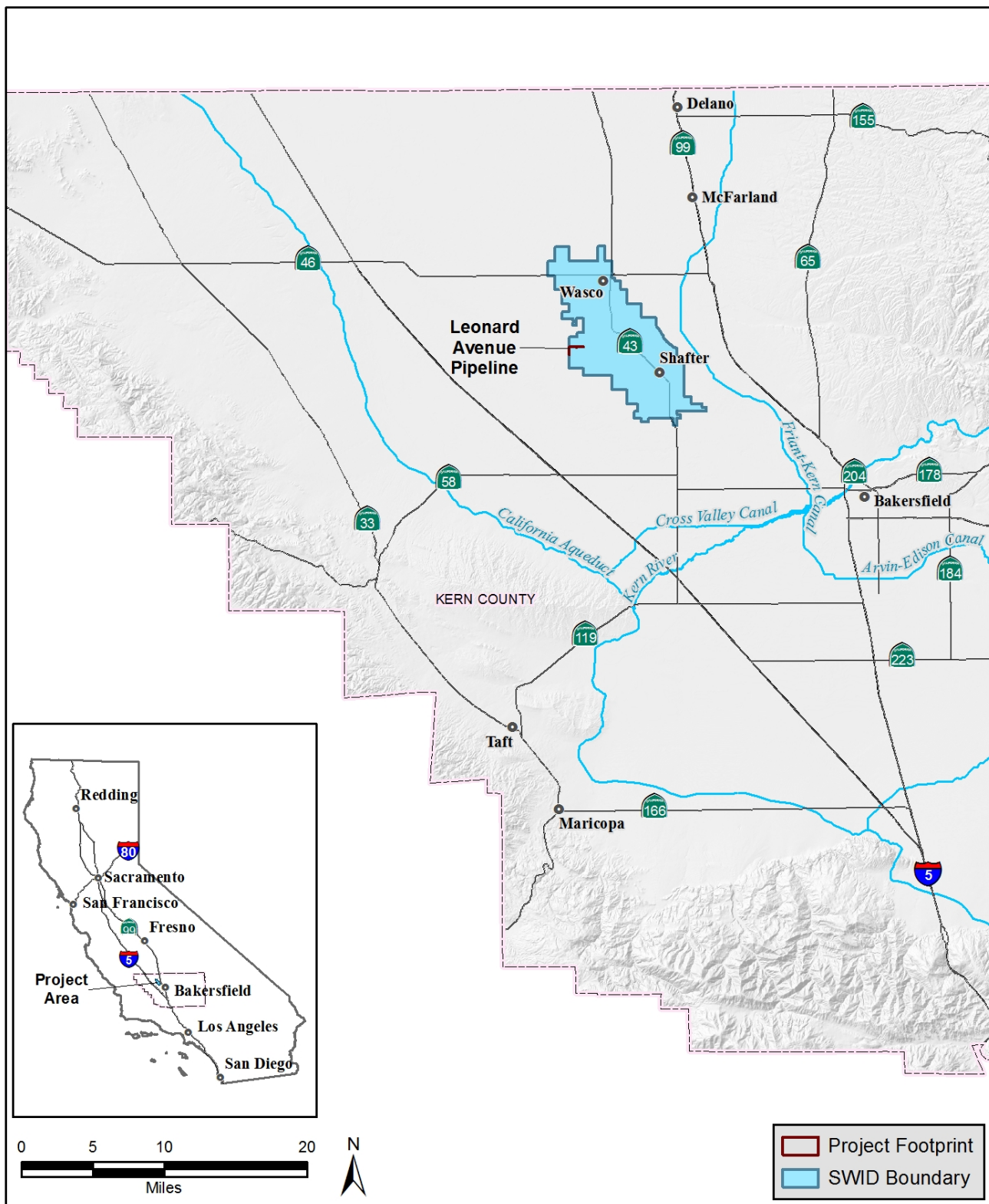
Conjunctive water use is practiced by SWID and its neighboring districts, including Semitropic Water Storage District (SWSD). During drought periods, SWID and SWSD growers currently operate groundwater wells to meet irrigation demand. The intent of the proposed project is to enhance regional water supply reliability and improve operational efficiency and flexibility. The project would allow SWID and SWSD to accept excess Central Valley Project (CVP) water during wet years, for supplemental use during drier water years when there is little to no allocation from the CVP. This flexibility will reduce reliability on annual CVP allocation fluctuations and Bay-Delta water supplies.

During wet years, when SWID and SWSD are often unable to immediately use the entirety of their allocated CVP water supply, SWID would be able to send excess CVP water through the new pipeline, to SWSD's distribution system, for storage in on-farm reservoirs within SWSD. This connection would enhance water supply reliability as it allows for the delivered water to be used for irrigation during peak-demand months, or dry periods. Providing a firmer water supply also ensures economic viability for irrigators and other water users in the region.

By providing a way for the water to be conveyed through SWID's new pipeline, to SWSD's distribution system whenever possible, the project would increase the flexibility of CVP deliveries. This would allow other regional districts and agencies to more precisely schedule their water deliveries and results in better management of surface water and groundwater resources. By reducing the strain on the groundwater subbasin, this project will help alleviate pumping costs, and curb spikes in the cost of water during drought years, by supplementing surface water with sustainably managed groundwater, from recharged basins.

In recognition of the value of conserving groundwater, SWID has set a goal to achieve a measurable reduction of its current applied surface water and groundwater pumping; however, in order to facilitate more efficient water use, and reduce groundwater pumping within SWID during drought years, SWID and SWSD must be able to effectively move water between their service areas. Currently, movement of water between the districts is operationally constrained by the lack of a connection in the project vicinity.

The proposed project is anticipated to convey 2,880 acre feet per year (AFY) of CVP wet-period water into SWSD. The water savings will be credited equally to SWID and SWSD. Therefore, both SWID and SWSD, will receive 1,440 AFY of water saving credits, and a total of 2,880 AFY of water will be better managed.



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**Figure 1: Project Location Map**

## **2.2 Project Components**

The proposed project would install a new 1.5-mile-long, 20 cubic feet per second, 27-inch bi-directional polymerized vinyl chloride pipe in the Kern County road right-of-way (ROW) on the north side of Merced Avenue and the west side of Leonard Avenue (**Figure 2** and **Figures 3a-3c**). The new Leonard Avenue pipeline will begin at the intersection of Magnolia Avenue and Merced Avenue, where it will connect to an existing SWID lateral. The new pipeline will travel approximately 1 mile west along Merced Avenue, to the intersection with Leonard Avenue. The pipeline will then turn south and follow Leonard Avenue for approximately 0.5 mile, terminating at an unimproved farm road where it will connect to the SWSD distribution system. The pipeline will also connect to four existing, 8-inch SWID turnouts: one near the corner of Merced Avenue and Magnolia Avenue and three near the corner of Merced Avenue and Western Avenue. Additionally, a one-half mile section of existing, obsolete concrete pipe along the south side of Merced Avenue, between Magnolia Avenue and Western Avenue, will be capped and abandoned in place. SWID would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW.

The new pipeline will be installed in a trench approximately 7-feet deep, on lands previously disturbed during road construction. All work and equipment staging will take place within an up to 60-foot-wide construction corridor. The construction corridor maximizes available space within the County road ROW and ensures that no adjacent agricultural crops would be removed. The total project site, including construction limits, is 11.28 acres. Areas surrounding the project site consist of agricultural lands currently in orchard and vineyard production. As mentioned previously, construction activities would not require the removal of any orchard or vineyard crops.

Construction activities include excavation of soils to install all buried pipe. All trenches will be backfilled with excavated material, ensuring all pipelines receive 4 feet of cover, and the ground over the new pipeline will be restored to its existing grade. A very small amount of spoils may need to be disposed of offsite at an approved facility. A 10-foot-wide permanent easement will be obtained within the County road ROW to allow for maintenance of the pipeline by SWID.

## **2.3 Hours of Construction**

Construction activities will be limited to between 7 a.m. and 5 p.m., Monday through Friday, with no work on holidays. Equipment maintenance activities will be performed during normal working hours.

## **2.4 Construction Schedule**

The proposed project would be completed during an approximately 4-month period between August 2020 and February 2021.

## **2.5 Construction Equipment**

Construction vehicles would consist of a front wheel loader, excavator, water truck, backhoe, haul truck, and pickup trucks.

## **2.6 Site Access, Staging and Material Disposal**

Access to the construction area would be confined to existing paved and unpaved roads. The construction corridor/work area for the new pipe and connections would not exceed a total of 60 feet wide, and all equipment staging and excavation would be contained within the construction corridor along the County road ROW. All trenches will be backfilled with material that was excavated from the trenches. No fill would be transported to the site, and a very small amount of spoils may need to be disposed of offsite at an approved facility.

## **2.7 Site Restoration**

As mentioned previously, all trenches will be backfilled and the ground over the new pipeline will be restored to its existing grade.

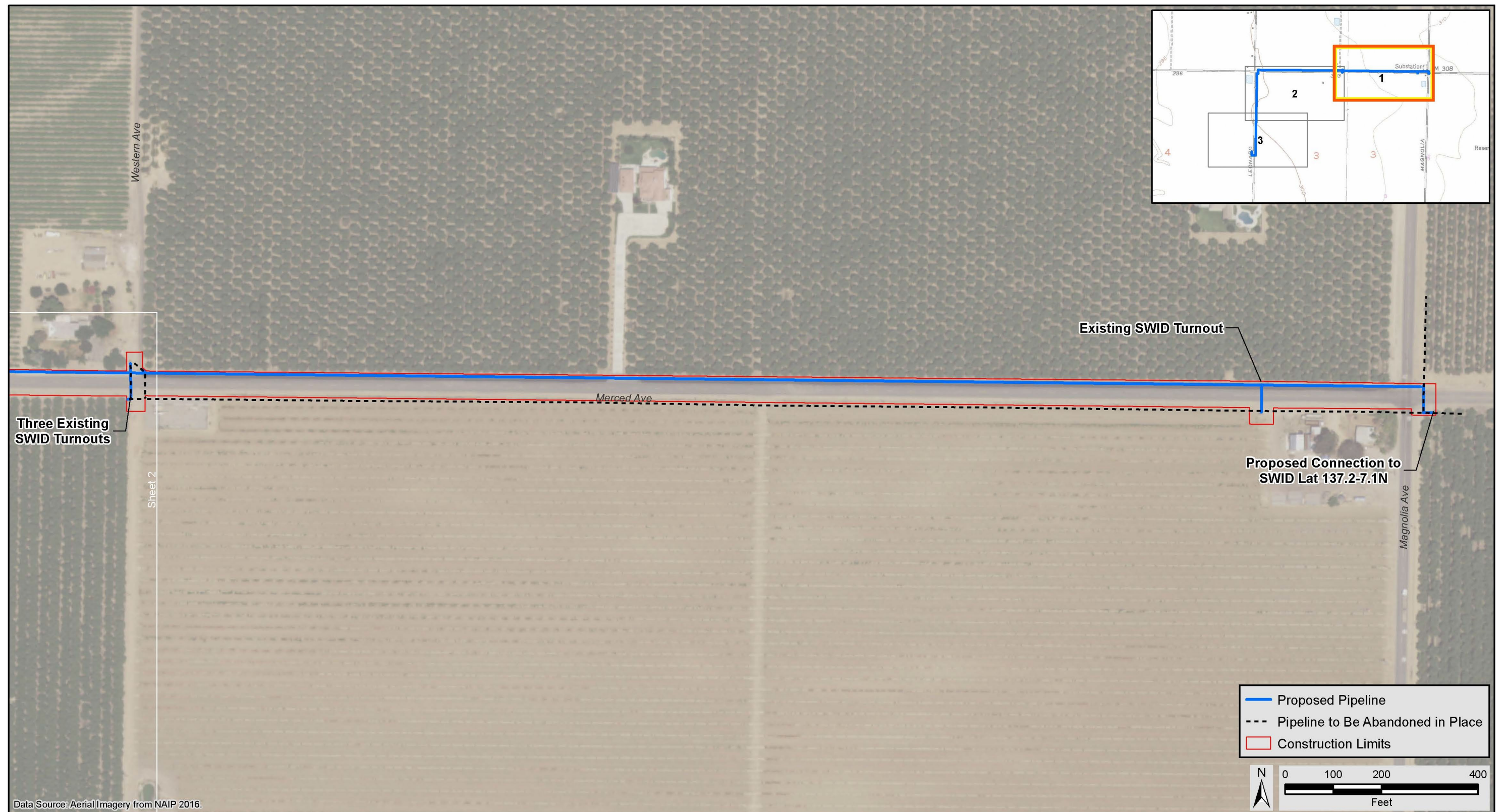




07Nov2019 RS Z:\Projects\1904700\_LeonardAve\1904700\_G001\_Overview.mxd

**Figure 2: Project Overview**





**Figure 3a: Project Detail**

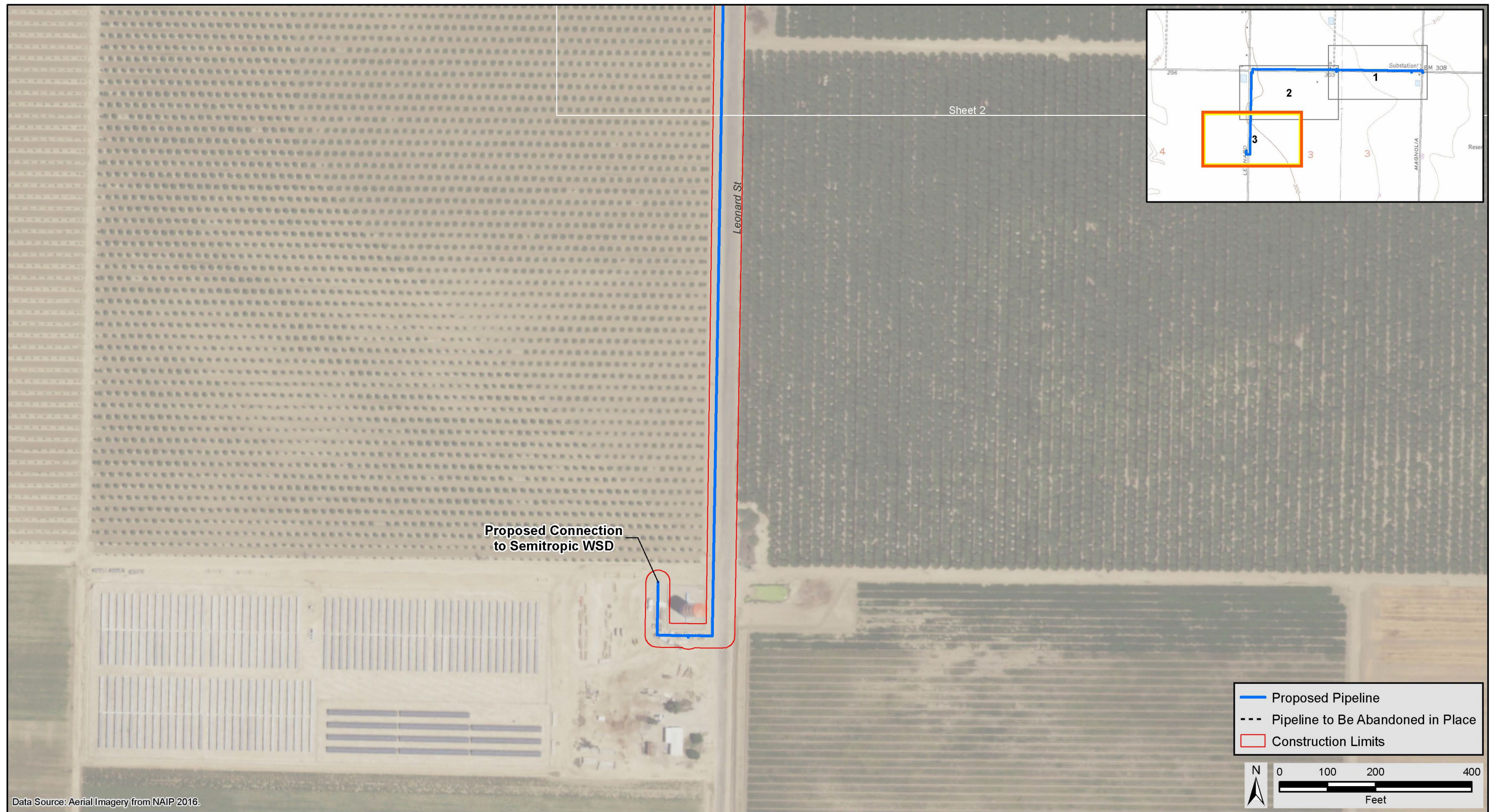




07Nov2019 RS Z:\Projects\1904700 LeonardAve\1904700 G002 Detail.mxd

Figure 3b: Project Detail





**Figure 3c: Project Detail**



## Chapter 3. Environmental Checklist

### Environmental Factors Potentially Affected

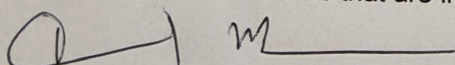
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forestry Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Energy
<input checked="" type="checkbox"/> Geology/Soils	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards and Hazardous Materials
<input type="checkbox"/> Hydrology/Water Quality	<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Utilities/Service Systems	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Mandatory Findings of Significance

### Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Dana Munn  
General Manager

Shafter-Wasco Irrigation District

1/22/20

Date

## Evaluation of Environmental Impacts

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Operations and maintenance impacts of the proposed project are routine, minimal, and essentially the same as current operations and maintenance of the existing facilities. There is no potential for significant impacts to any resource category from project operations and maintenance of the existing and proposed facilities.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required. “Beneficial impacts” are also identified where appropriate to provide full disclosure of any benefits from implementing the proposed project.
- 4) “Less-than-significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-Than-Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.
- 5) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 8) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less-than-significant.

Significance thresholds are identified for certain resources, but others are not necessary because there is clearly no impact or the question itself provides the basis for the significance threshold.

### 3.1 Aesthetics

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>I. AESTHETICS.</b> Except as provided in PRC Section 21099, <b>would the project:</b>					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-d)** The proposed project area is flat; comprised of paved roads and various orchard and non-permanent crops (Photos 1a and 1b). There are no scenic vistas or state scenic highways in the proposed project vicinity (Caltrans 2017 and 2019). There would be **no impact**.

The proposed project involves buried water conveyance facilities that would connect the SWSD and SWID systems for increased flexibility of CVP deliveries. Other than temporary disturbance along the county road ROW during pipeline construction, there would be no change to the existing visual character of the project site since the pipeline will be buried and the land surface restored to the original grade. Construction activities would extend over 4 months and only occur during daylight hours. During construction, a small number of construction vehicles would be present onsite; however, this would not be substantially different than agricultural equipment currently used in the area. Therefore, the proposed project's impact on the existing visual character of the area would be **less than significant**.

Additionally, the proposed project would not create any new temporary or permanent sources of light. There would be **no impact**.





**Photo 1a: Typical Viewshed in the Project Area**



**Photo 1b: Typical Viewshed in the Project Area**



## 3.2 Agriculture and Forestry Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>II. AGRICULTURE AND FORESTRY RESOURCES.</b>  In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. <b>Would the project:</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land ( <i>as defined in</i> PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a-e)** The proposed project is located in an agricultural area that is almost entirely in active production (with the exception of roads and scattered rural residences). As the new pipeline will be buried within the county road ROW, the construction and operation of the proposed project will not conflict with existing zoning of surrounding parcels nor will it affect any Williamson Act contracted lands. There are no forest lands or timberlands within the project area, which is

classified as Prime Farmland (Kern County 2009 and California Department of Conservation [DOC] 2019). The lands surrounding the pipeline alignment are currently classified as Williamson Act contract lands (Kern County 2019), however, agricultural land and crops adjacent to the pipeline alignment would not be disturbed during construction or operation of the proposed project and water supplied by the project would help to support continued agricultural production on these lands. There would be **no impact** to forestry resources and impacts to agricultural resources would be **beneficial**.

### 3.3 Air Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>III. AIR QUALITY.</b>  Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. <b>Would the project:</b>					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a-e)** The proposed project is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD) and is surrounded by agricultural fields and paved roads. The SJVAPCD is in nonattainment for state air quality standards limiting ozone, Particulate Matter (PM) 10 microns or less and PM 2.5 microns or less (SJVAPCD 2019). Construction for the proposed project would extend over 4 months and utilize typical construction vehicles including a front wheel loader, excavator, water truck, backhoe, haul truck, and pickup trucks. Short-term air quality impacts would be associated with trench excavation for the pipelines and would generally arise from dust generation and operation of construction equipment. The proposed project could potentially utilize up to three pickup trucks to deliver employees and materials to the project site. Three vehicles traveling to and from the construction site, one roundtrip per vehicle, would total six vehicle trips per day. Using project size and type based on the Small Project Analysis Level (SJVAPCD 2012), the proposed project would not exceed SJVAPCD established significance threshold of 1,673 vehicle trips a day for commercial projects.

The primary concern for construction of the proposed project is PM emissions from fugitive dust. SWID would utilize a water trucks and implement Mitigation Measure AQ-1: Develop Dust Control Plan for compliance with the SJVAPCD Regulation VIII, Fugitive PM10 Prohibitions (2012) during construction to contain fugitive dust and reduce airborne particulates during ground-disturbing activities.

With the implementation of the Dust Control Plan detailed in Mitigation Measure AQ-1, the proposed project is not expected to result in a cumulatively considerable net increase in existing

levels of PM10 or conflict with the SJVAPCD's air quality plan (*see* Mitigation Measures, Chapter 5). The project area is located along paved road and adjacent to actively cultivated agricultural lands and scattered rural residences. There are only two residences (sensitive receptors) immediately adjacent to the proposed alignment. Due to the linear nature of pipeline construction and the small relative trench size, any emissions would occur over a short duration (only a few days) and would not substantially affect air quality as compared to existing conditions along the pipe alignment. Therefore, impacts due to project construction would be **less than significant with mitigation incorporated**

The operation phase of the proposed project would rely on pressure maintained within the system to convey water through the pipeline to the SWSD connection point and would not use any electricity. Since the proposed project would not have a significant increase in electrical demand compared to current conditions, the proposed project would have **no impact** to air quality during the operations phase.

### 3.4 Biological Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>IV. BIOLOGICAL RESOURCES.</b>					
<b>Would the project:</b>					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following analysis of potential for biological resources to be impacted by the proposed project is based on information provided in the Biological Technical Report included as **Appendix A**. A field survey of the pipeline route was conducted by GEI biologist, Anne King on November 7, 2019. The project site is limited to existing paved roadways and adjacent barren dirt road shoulders and other barren dirt areas adjacent to existing water supply infrastructure. No native vegetation assemblages are present on or adjacent to the project site. All adjacent agricultural lands are actively cultivated in almond orchard or vineyard. Ornamental trees and shrubs occur at several residences adjacent to the pipeline route. **Appendix A** includes photographs of the project site that were taken during the November 2019 field survey.

- a) The California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California were reviewed for occurrences of special-status species on or near the project site. These reviews were centered on the Wasco SW USGS 7.5-minute quadrangle and included the eight surrounding quadrangles. An official list of federal threatened and endangered species that could occur on or near the project site was obtained from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation website. Results of the CNDDDB and CNPS USGS 9-quadrangle searches yielded occurrences of 38 plants and animals. Fourteen of these special-status species have been documented within 5 miles of the project site. However, most of these occurrences are historical (i.e., from 30 or more years ago) and are from natural habitats, which do not occur on the project site. Results of the CNDDDB and CNPS Inventory queries (CDFW 2019, CNPS 2019) and the USFWS species list (USFWS 2019) are included in **Appendix A**.

Special-status plants. Based on review of existing documentation and field survey observations, habitat for special-status plants is absent from the project site, and no special-status plants were determined to have potential to occur on or adjacent to any portion of the project site. Therefore, there would be **no impact** on special-status plants.

Special-status birds. Alfalfa fields near the project site provide potential foraging habitat for Swainson's hawk (*Buteo swainsoni*) (state-listed as threatened), but trees in the area provide poor-quality nest sites. Kern County is at the south end of the Swainson's hawk breeding range, and the species occurs sparsely in this region; no nesting pairs were detected in Kern County during the statewide 2005 inventory (CDFG 2007). The CNDDDB includes only 20 presumed extant active Swainson's hawk nests or nesting pairs documented since 1990 in the County, and none of these is within 10 miles of the project site. Based on the scarcity of Swainson's hawks in the region and the very small number of potential nest trees, potential for this species to nest on or near the project site is extremely low, and Swainson's hawk occurrence in the project vicinity is likely limited to migratory individuals. Because the project site is subject to regular disturbance from agricultural activities, road traffic, and rural residences, and project disturbance would be similar in intensity to existing agricultural activities, project activities would not disturb any potential foraging activities in the project vicinity. Project activities are also unlikely to disturb nesting activities, in the very unlikely event a nesting pair is present in the area during project construction. Therefore, this impact would be **less than significant**.

Special-status mammals. The project site provides very poor-quality habitat for San Joaquin kit fox (*Vulpes macrotis mutica*) (federally-listed as endangered and state-listed as threatened). Although this species occurs in a variety of habitats, including agricultural land, individuals prefer natural open habitats with loose-textured soils, and dens typically occur in open areas with grass or scattered brush (USFWS 1998, 2010). There are no CNDDDB occurrences of kit fox from the immediate project vicinity (CDFW 2019). The nearest CNDDDB occurrence is from 1993, in an isolated area of native scrub habitat approximately 3 miles southwest of the project site. However, since this occurrence was recorded, the amount of native habitat at this location has been substantially reduced by agricultural development. Based on the very poor quality of habitat on and surrounding the project site for several miles, lack of travel corridors, lack of documented

historical occurrences from the immediate project vicinity, and reduced habitat availability and quality at the nearest documented occurrence, the potential for San Joaquin kit fox to occur on the project site is extremely low. However, in the very unlikely event an individual strays onto the project site during construction activities, it could become trapped in pipes or trenches. This impact would be **potentially significant**. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant (*see* Mitigation Measures, Chapter 5).

Western mastiff bat (*Eumops perotis californicus*) (California Species of Special Concern) has been documented in the region, but CNDDDB occurrences of this species in the southern San Joaquin Valley are generally from the valley floor margins, adjacent to hills that likely provide suitable natural roost sites. Western mastiff bat has very low potential to occur on or adjacent to the project site, because the nearest known occurrences are approximately 15 miles away, there is no suitable natural roosting habitat within at least 10 miles, and the project vicinity provides very poor artificial roost sites. If individuals forage over the project site, foraging activities would not be disturbed by construction activities. Therefore, this impact would be **less than significant**.

- b,c) The project site does not support any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations. The site also does not support any state- or federally-protected wetlands. Therefore, there would **no impact** on these resources.
- d) The project site is part of a much larger area dominated by agricultural lands and scattered towns, and it does not support any corridors of natural habitat that facilitate wildlife movement; it also does not support fish movement corridors or wildlife nursery sites. Terrestrial wildlife may travel along agricultural roads and through orchards and vineyards adjacent to the project site, but these potential travel routes are not migratory corridors. In addition, project construction would disturb a very narrow corridor along existing paved roadways, and wildlife would easily be able move through similar habitat in adjacent areas that are undisturbed by project activities. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, and there would be **no impact** on established native resident or migratory wildlife corridors or native wildlife nursery sites.
- e) The project site is part of a much larger area dominated by agricultural lands and scattered towns, and it does not support any corridors of natural habitat that facilitate wildlife movement; it also does not support fish movement corridors or wildlife nursery sites. Terrestrial wildlife may travel along agricultural roads and through orchards and vineyards adjacent to the project site, but these potential travel routes are not migratory corridors. In addition, project construction would disturb a very narrow corridor along existing paved roadways, and wildlife would easily be able move through similar habitat in adjacent areas that are undisturbed by project activities. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, and there would be **no impact** on established native resident or migratory wildlife corridors or native wildlife nursery sites.
- f) The project site is not within the area covered by an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan. The site is within the area anticipated to be covered by the Kern County Valley

Floor HCP. A draft of this HCP was distributed in 2006 (County of Kern 2006), but the HCP was not adopted, and a revised plan has not been distributed. The project site is within an extensive area of “White Zone,” which is of lower conservation concern and not identified for acquisition of preserve areas. Because this or a revised version of the HCP would not be adopted by the participants or approved by the regulatory agencies before the proposed project is implemented, consistency of the proposed project with the Kern County Valley Floor HCP is not required to be analyzed under CEQA. Therefore, implementing the proposed project would have **no impact** related to potential conflict with an adopted HCP, NCCP, or other approved conservation plan.



## 3.5 Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>V. CULTURAL RESOURCES.</b>					
<b>Would the project:</b>					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to California CCR Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including remains interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3.5.1 Environmental Setting

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance.

#### Prehistoric Context

Evidence for prehistoric occupation of the southern San Joaquin Valley (Valley) during the late Pleistocene and Early Holocene (13,500-10,500 cal. BP) is sparse and ephemeral. This period is referred to as the Paleo-Indian Period, following the chronology of the northern Central Valley and Delta developed by Fredrickson (1974, 1994). During the Paleo-Indian Period, the people of the southern Central Valley lived in small groups, following seasonal rounds of game and resources, and often lived in temporary camp sites near lakeshores, such as Tulare Lake, which was about 28 miles northeast of the project area (Fredrickson 1994; Rosenthal et al. 2007). A very similar pattern of temporary camps on lake shores continued into the Lower Archaic Period (10,500-7,500 cal. BP) (Rosenthal et al. 2007). During the Middle Archaic period (7,500-2,500 cal BP), settlement patterns became more stable, and semi-permanent village sites were established, particularly near rivers and lakeshores. More is known about this period, particularly from burials which included positioning the deceased in an extended position oriented to the west, with abundant grave goods (Moratto 1984). The Upper Archaic period (2500-850 cal BP) saw increasing cultural diversity and social complexity, which became even more pronounced in the Emergent Period (850 cal BP to the Historic Era), when the bow and arrow first appeared. Each of these time periods is distinguished in archaeological contexts by differences in artifact forms, materials, and burial traditions (Fredrickson 1994; Moratto 1984).

#### Ethnographic Context

The proposed project is situated in the ethnographic territory of the Southern Valley Yokuts, specifically the Chuxoxi who occupied the channels of the Kern River Delta (Kroeber 1925; Wallace 1978). Neighboring Southern Valley Yokuts tribes, all within the Tulare Lake Basin, included the Wowol,

Yawelami, and Hometwali. Before European contact the Southern Valley population was estimated at 6,900 people (Cook 1955:44), living in autonomous villages of around 350 people each (Wallace 1978). The Yokuts economy in the area depended heavily on fishing, waterfowl, and gathering shellfish, roots, and seeds (Gayton 1948; Wallace 1978).

## **Historic Context**

### ***Kern County***

Kern County was established in 1866 and Bakersfield became the County seat in 1874. As early as the 1770s, Spanish explorers Don Pedro Fages and Father Francisco Garces passed through the region. Father Zalvidea and Lt. Francisco Ruiz were part of another survey expedition in the early 19th century. They were followed by fur trappers Jedediah Strong Smith and Kit Carson and later John C. Fremont and his expedition in the mid-1840s (Kern County 1966:9; Elliott 1883:102, 111–112).

In 1851, gold was discovered near the Kern River and gold mining became a dominant activity in the county, especially in the mountains and the desert. Later many of the miners settled in the flatlands and turned to agriculture and livestock as a more suitable means of sustaining a living. In time, the locals constructed small canals and ditches to allow for farming. With irrigation improvements in place, farmers planted crops and agriculture soon became the primary driver of the economy. Agriculture and oil remained a mainstay of the county through the 20th century. Presently, the economy of the county is largely based on agriculture and petroleum extraction (Kern County 1966: 21, 23, 77, 117–118).

By the 1860s, oil was discovered in the county. Small communities near the oil fields grew into the towns of Whiskey Flat, later Kernville, Buttonwillow, Bakersfield, Oil City, Oil Center, and Oildale were founded near the oil fields. Further settlement was encouraged by the passage of the Desert Land Act of 1877 that promoted the development of the arid lands of the west. The Southern Pacific Railroad laid tracks near Bakersfield in 1877 and a few years later the San Francisco and San Joaquin Valley Railroad, later Santa Fe Railroad arrived in the area. Starting in the 1930s, Kern County became home to thousands of settlers who fled the Dust Bowl in the Midwestern United States (Morgan 1914:35). Agriculture and oil remained a mainstay of the county through the 20th century.

### ***Irrigation***

Cattle ranching and wheat farming remained the predominant agricultural pursuits in the Valley into the 20th century based largely on improved irrigation methods. Irrigation systems were typically beyond the financial means of individual farmers and arrangements related to the development of irrigation features were often made with the community and local institutions. These generally fell into four categories, private water companies, land colonies, mutual water companies, and irrigation districts representing the largest acreage and the most critical to the successful development of large-scale irrigated agriculture in the state. Irrigation transformed the Valley landscape and created one of the nation's most productive agricultural region (JRP and Caltrans 2000 12 13).

By the early 20th century, much of the flow of the Kern River was redirected through canals and ditches and by 1910 all the surface-water supplies in the Valley was diverted, which resulted in the development of ground-water resources. By 1955, nearly one-fourth of the total ground water obtained for irrigation in the U.S. was pumped in the Valley, a trend that continued into the 1960s. With the completion of federal

and state projects, including the Delta-Mendota Canal, Friant-Kern Canal, and the California Aqueduct, cheaper water was available to irrigate agricultural crops, allowing the water table to recover (Galloway and Riley 1999:23–24, 27–29).

### 3.5.2 Methods

The cultural resources investigations carried out for the proposed project included a Sacred Lands Files database search with the Native American Heritage Commission, background research conducted at the South San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System, review of historic maps and ethnographic documents, archival research, an archaeological survey of the project area, and a desktop geoarchaeological study.

On October 9, 2019, GEI conducted an in-person records search of the project area and a surrounding ½ mile at the SSJVIC. The SSJVIC resource map review indicates that no previously recorded resources are within the project area or within ½ mile of the project area. Referenced documents included base maps indicating previously reported resources and investigations, reports from previous investigations, Department of Parks and Recreation (DPR) site records, and California Historic Landmarks documentation.

A pedestrian survey of the project area was carried out to identify archaeological and historical cultural resources visible on the surface. The survey occurred on October 15, 2019, and was conducted by GEI archaeologist Jesse Martinez, Registered Professional Archaeologist. The survey was conducted to intensive standards (i.e. pedestrian transects spaced no more than 15 meters apart). The project area consists primarily of road prism, paved roads, and dirt roads. Visibility was excellent in all areas though the surface context of the project area is highly disturbed. Disturbance has occurred through road construction and surface levelling for agricultural purposes and deeper though more limited disturbance due to power pole placement. During the pedestrian survey one cultural resource, a historic-era (50 years old or older) underground pipeline, was identified. No prehistoric-era or historic-era archaeological resources were identified).

### 3.5.3 Findings

The records search, pedestrian survey, and geoarchaeological investigations did not identify any archaeological sites or human remains within the project area. During the pedestrian survey two historic-era (50 years old or older) cultural resources were identified, an underground pipeline, and a set of 3 turnouts (*see Appendix B*). The resources were evaluated for the National Register of Historic Places (NRHP) and were found to be ineligible for NRHP listing. They also do not appear to meet eligibility requirements for the California Register of Historical Resources (CRHR) and are therefore not considered historical resources for the purposes of CEQA. Geologic mapping of the project area indicates the area is composed of Latest Holocene basin alluvial deposits, while soils consist entirely of Kimberlina fine sandy loams. While these native soils and sediments are of appropriate age to contain cultural resources and considered to have high potential for buried archeological deposits, all project-related ground disturbance in the project area will occur in previously disturbed soils and will consist of replacing existing subsurface pipelines, which makes the presence of intact archaeological deposits within the project area highly unlikely.

### 3.5.4 Discussion

- a) Under CEQA, public agencies must consider the effects of their actions on “historical resources.” CEQA defines an “historical resource” as any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California Historical Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (California PRC Section 5024.1, 14 CCR Section 4850). The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on importance of the resources to California history and heritage.

A cultural resource may be eligible for listing on the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
2. is associated with the lives of persons important in our past
3. embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values
4. or has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (OHP 1999).

No historical resources were identified during the records search or pedestrian survey. Further, while the geoarchaeological desktop study indicates that the project area has high sensitivity for buried resources, historical land use suggests that any deposits that may have been present would have been previously disturbed. Though very unlikely, the possibility remains that a resource meeting CRHR significance criteria for a historical resource may be discovered during project-related ground-disturbing activities. If this were to occur, then it would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would reduce this impact to **less than significant** (see Mitigation Measures, Chapter 5).

- b) The state CEQA Guidelines require consideration of unique archaeological resources (CCR Section 15064.5). As used in California PRC Section 21083.2, the term “unique archaeological resource” refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

No archaeological resources were identified within the project area during the records search or pedestrian survey. Despite the results of the geoarchaeological investigation, historic land use makes it extremely unlikely that any archaeological resources would be discovered during project-related, ground-disturbing activities. Nevertheless, the possibility remains that an archaeological resource could be inadvertently discovered during project activities causing a potentially significant impact to an archaeological resource. Implementation of Mitigation Measure CUL-1 would reduce this impact to **less than significant** (*see* Mitigation Measures, Chapter 5).

- c) No human remains have been discovered in the project area and it is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during ground disturbance activities with the proposed project. There is no specific indication that the project area has been used for human burial purposes in the recent or distant past. However, in the event that human remains, including those interred outside of formal cemeteries and including associated items and materials, are discovered during subsurface activities, the human remains and associated items and materials could be inadvertently damaged. Therefore, this potential impact would be potentially significant. Implementation of Mitigation Measure CUL-2 would reduce this impact to **less than significant** (*see* Mitigation Measures, Chapter 5).

### 3.6 Energy

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>VI. ENERGY.</b>					
<b>Would the project:</b>					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** The construction phase of the proposed project would not involve wasteful, inefficient, or unnecessary consumption of energy resources as the proposed project involves only construction of the new pipeline using excavation equipment that is standard to a project of this type. The operation phase of the proposed project would not require the use of electricity as the system will rely on pressure maintained within the system to provide water through the system to the SWSD connection point. Since the proposed project would not cause a significant increase in electrical demand compared to current conditions, the proposed project would have no adverse impacts to energy consumption during the operations phase. The proposed project does not conflict with any state or local plans regarding renewable energy or energy efficiency. There would be **no impact**.

### 3.7 Geology and Soils

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>VII. GEOLOGY AND SOILS.</b>					
<b>Would the project:</b>					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, <i>as defined in</i> Table 18-1-B of the Uniform Building Code (1994, as updated),), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a)** The proposed project does not lie within an Alquist-Priolo Earthquake Fault Zone or an area where strong seismic ground shaking or failure is expected to occur, due to a lack of known faults in the project vicinity. The nearest Alquist-Priolo Fault Hazard Zone is approximately 14 miles from the project site (DOC 2010 and 2019a). There would be **no impact**.
- b)** Construction activities would involve excavating, filling, and grading of soils onsite, which would expose site soils to possible erosion from wind and surface water runoff. Kern County has adopted

standard measures to control erosion and sediment during construction and all projects in the County are required to comply with the County's Grading Code which includes construction standards and Best Management Practices (BMP's) for Erosion and Sediment Control (Kern County 2019). Operation of the proposed project would not substantially increase topsoil loss or create a potential for soil erosion as the project consists of a buried pipeline. The ground overlying the pipeline will be graded to match surrounding ground surface level and operation will not involve activities that will increase or influence surface runoff that may cause erosion. This impact would be **less than significant**.

- c) The proposed project is also not located in a liquefaction or landslide zone (DOC 2019b). The flat topography characteristic of the project vicinity and the small amount of earthmoving (trenching only) involved with project construction precludes the incidence of landslides, subsidence, lateral spreading, and the possibility of collapse caused by construction. There would be **no impact**.
- d) Soils along the project alignment are comprised of Kimberlina fine sandy loam, 0 to 2 percent slopes. Soils are deep, well-drained, low or completely lacking in clay content, and typically used for agriculture (USDA 2019). The new pipeline would be buried within this soil type which is not considered expansive and do not create a risk to life or property. There would be **no impact**.
- e) The proposed project will not involve construction or use of septic tank or alternative wastewater systems. There would be **no impact**.
- f) The proposed project lies in Quaternary-period alluvial fan deposits from the Pleistocene-Holocene epochs. In general, most sedimentary rock formations that are of Pleistocene age or older throughout the Central Valley, are paleontologically sensitive. No unique geologic features occur in the proposed project area (DOC 1978). The installation of the buried pipe could impact unknown paleontological resource as the pipe would be installed underground within excavated trenches. SWID would implement mitigation measures during construction that would reduce the likelihood of destroying a unique resource or paleontological site (*see* Mitigation Measures, Chapter 5). Therefore, potential impacts to paleontological resources would be **less than significant with mitigation incorporated**.



### 3.8 Greenhouse Gas Emissions

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>VIII. GREENHOUSE GAS EMISSIONS.</b>					
<b>Would the project:</b>					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** The Environmental Protection Agency's (EPA's) mandatory reporting threshold for large sources of greenhouse gas emissions (GHGs) is 25,000 metric tons of CO<sub>2</sub> emitted annually. This threshold is approximately the amount of CO<sub>2</sub> generated by 5,281 passenger vehicles per year (EPA 2019). Construction for the proposed project would take 4 months and utilize typical construction vehicles that include a front wheel loader, excavator, water truck, backhoe, haul truck, and pickup trucks. Comparatively, emissions from approximately eight construction vehicles during the short project construction timeframe would be considerably lower than the EPA emissions threshold. Because these activities would be similar to existing conditions in a continuously cultivated agricultural area, for both construction and operation, and will be far below the threshold level of emissions, proposed project greenhouse gas emissions would not represent a substantial change would be **less than significant**. The project would not conflict with county or state emissions reduction plans, policies or regulations. Therefore, there would be **no impact**.

### 3.9 Hazards and Hazardous Materials

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>IX. HAZARDS AND HAZARDOUS MATERIALS.</b>					
<b>Would the project:</b>					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** Project-related activities would entail the use and storage of very small amounts of hazardous substances necessary for the operation of construction equipment, such as fuels, lubricants, and oils. Transport of these materials on project area roadways is heavily regulated at the local, state, and federal level. The proposed project would not involve long-term transport of hazardous materials, and the frequency of use and amount of fuels, lubricants, and oils will be consistent with current agricultural activities in the project area. Therefore, this impact would be **less than significant**.

- c) The nearest school, Teresa Burke Elementary School, is located approximately 4 miles from the project site and is not at risk from exposure to hazardous materials or emissions resulting from the proposed project. There would be **no impact**.
- d) There are no Cortese-listed or other hazardous waste or materials sites in the project vicinity (SWRCB 2019). There would be **no impact**.
- e) The nearest airport, Wasco-Kern County Airport, is located approximately 6 miles from the project site. The proposed alignment is not located within the boundaries of the Airport Land Use Compatibility Plan (Kern County 2012a). Additionally, the project would have no impact on airport operations and would not result in exposure of site workers to excessive noise levels. There would be **no impact**.
- f) Construction of the proposed project will result in short term work along the county road ROW and will not require closure or reduced access on any adjacent roads. Additionally, none of the roads in the project vicinity are listed as evacuation routes by the Kern County Office of Emergency Services (Kern County 2012b). There would be **no impact**.
- g) The proposed project does not include any activities that would increase the risk of wildland fire risk and is not located within a state responsibility area or very high fire hazard severity zone (CalFire 2007a and 2007b). There would be **no impact** related to wildfire risk.

### 3.10 Hydrology and Water Quality

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

- a) The proposed project would convey a similar supply and quality of water to agricultural users as is currently conveyed in the existing pipeline. Operation of the proposed project would not result in violation of water quality standards or waste discharge requirements. Additionally, during construction, the site will employ standard measures to control erosion and sediment and to protect water quality during construction as required by the County's Grading Code which includes construction standards and BMP's for Erosion and Sediment Control (Kern County 2019). This impact would be **less than significant**.

- b) The proposed project relies on continued conveyance of surface water supplies within a buried pipeline and will not use groundwater as a supply nor interfere with regional groundwater recharge as a result of project construction or operation. There would be **no impact**.
- c) Stormwater and agricultural runoff in the project vicinity currently collects within existing ditches and canals within agricultural fields and along adjacent roadways. This drainage pattern would not be altered, and erosion and surface runoff will not be increased beyond existing conditions by construction or operation of the proposed project. No above-ground structures are proposed as part of the project. Thus, there is no possibility that construction or operation of the project would redirect flood flows. There would be **no impact**.
- d) The proposed project area is located in Federal Emergency Management Agency (FEMA) Zone X (area of minimal flood hazard [panels 06029C1275E and 06029C1250E]). Thus, the site is not located within a flood hazard zone as designated by FEMA or within an area that would be affected by tsunami or seiche (FEMA 2019; DOC 2019). There would be **no impact**.
- e) The proposed project is located within the jurisdiction of the Central Valley Regional Water Quality Control Board's Water Quality Control Plan for the Tulare Lake Basin [Kern County subbasin 256] (SWRCB 2018) and within the high-priority, critically-overdrafted Kern County groundwater subbasin (5-022.14), as designated in DWR's Bulletin 118 (DWR 2016). However, the proposed project will not affect implementation of the water quality control plan nor the Groundwater Sustainability Plan for this area, as there will be no discharge to surface waters nor any use or affect to groundwater related to construction or operation of the proposed project. This impact would be **less than significant**.

### 3.11 Land Use and Planning

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XI. LAND USE AND PLANNING.</b>					
<b>Would the project:</b>					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** The proposed project is located among actively cultivated agricultural lands and scattered rural residences in an area zoned for intensive agriculture and will serve as a water supply for existing farmland or for groundwater recharge, in the region (Kern County 2004). The proposed project is consistent with existing zoning. There are no adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans covering the project site. There would not be a conflict with conservation plans or land use plans as zoning would not change in the proposed project area. There would be **no impact**.

### 3.12 Mineral Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XII. MINERAL RESOURCES.</b>					
<b>Would the project:</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** Although the Shafter and Wasco Oil Fields are located to the south and west of the project site (DOC 2002), the proposed project does not directly overlie the field and the project is not located in or near any areas of known Mineral Resource Zones, as designated by the state. Implementation of the proposed project would not result in the loss of or prelude the recovery of a locally important mineral resource (DOC 2009). There would be **no impact**.

### 3.13 Noise

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XIII. NOISE.</b>					
<b>Would the project:</b>					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** The proposed project is located in an actively farmed agricultural area and planned construction equipment is similar to heavy equipment currently used in the project vicinity to support farming. All construction activities will comply with the Kern County Health and Safety Ordinance, Chapter 8.36, Noise Control (Section 8.36.020, Prohibited Sounds). The Ordinance Code of Kern County prohibits construction noise between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of 150 feet from the construction site, if the construction site is within 1,000 feet of an occupied residential dwelling except for emergency work or when the resource management director or his designated representative provides an exemption for a limited time. Construction noise would be short-term, and construction would occur only during daylight hours. Thus, there would be no substantial increase in ambient noise levels or groundborne vibration or noise levels due to project construction or operation. Impacts due to construction-related noise and vibration would be **less than significant**.

Operation of the proposed project would not generate any noise or vibration for nearby scattered rural residences. There would be **no impact**.

- c)** The nearest airport, Wasco-Kern County Airport, is located approximately 6 miles from the project site. The proposed alignment is not located within the boundaries of the Airport Land Use Compatibility Plan (Kern County 2012). Additionally, the project would have no impact on airport operations and would not result in exposure of site workers to excessive noise levels. There would be **no impact**.



### 3.14 Population and Housing

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XIV. POPULATION AND HOUSING.</b>					
<b>Would the project:</b>					
a) Induce substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** The proposed project will not facilitate or result in new population growth in the area and thus would not require additional housing, roads or other development-related infrastructure. In addition, the proposed project will result in no new long-term employment for the area that may necessitate growth. The construction of the proposed project would be completed over a 4-month period and workers will travel to the construction site from nearby existing cities and towns. Thus, project construction and operation will not result in additional population growth nor will it displace existing populations in the surrounding rural, agricultural area. There would be **no impact** to population and housing.

### 3.15 Public Services

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XV. PUBLIC SERVICES.</b>					
<b>Would the project:</b>					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) The proposed project is located in an undeveloped area surrounded by active agricultural lands and scattered rural residences. The characteristics of the new pipeline pose no increase in fire risk, since the pipe will be buried. Additionally, since no new structures or land uses will result from project implementation or operation, there will be no need for modifications to police protection, or requirements for additional schools or park facilities. In addition, the construction phase will be a short, 4-month period and nighttime construction will not occur. The operation phase will require no additional employees to maintain and operate. Therefore, the proposed project will not affect existing nor require additional public services. There would be **no impact**.

### 3.16 Recreation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XVI. RECREATION.</b>					
<b>Would the project:</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-b)** No recreational facilities exist in the proposed project area. Additionally, the proposed project will not increase the area population nor otherwise affect the construction, use, or need for expansion of nearby recreational facilities. There would be **no impact**.

### 3.17 Transportation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XVII. TRANSPORTATION.</b>					
<b>Would the project:</b>					
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-d)** The proposed project will be constructed in a rural area along lightly travelled roads and will not result in new places of employment or modifications to transit routes. Construction traffic will use existing public roads to deliver equipment, supplies, and workers to the construction sites. Construction of the proposed project will employ only a few individuals during the 4-month construction period. The proposed project consists of a buried pipeline and will also be constructed entirely within the county road ROW and will not disturb the roadbed or operations of any adjacent roads. Therefore, the project would result in a **less than significant impact** to transportation reliability or emergency access will occur during or after construction.

## 3.18 Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XVIII. TRIBAL CULTURAL RESOURCES.</b>					
<p><b>Would the project</b> cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p>					
a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3.18.1 Environmental Setting

The proposed project is situated in the ethnographic territory of the Southern Valley Yokuts, specifically the Chuxoxi Tribe (Wallace 1978). Neighboring Southern Valley Yokuts tribes, all within the Tulare Lake Basin, included the Wowol, Yawelami, and Hometwali. Most tribes in central California, including the Patwin and Nisenan, had similar subsistence-settlement patterns, material culture, and social structures (Kroeber 1925).

### Methods and Findings

On October 8, 2018, a request was sent to the Native American Heritage Commission (NAHC) requesting a list of Native American contacts for the proposed project area and requesting a search of the NAHC's Sacred Lands File (*see Appendix B*). On October 12, 2018, the NAHC responded to the request and provided a list of Native American contacts and indicated that there are no known Sacred Sites listed in their Sacred Lands File for the proposed project area. Because no Tribes have previously requested consultation with SWID for any projects within the Tribes' area of cultural affiliation, there has been no further consultation under PRC 21080.3.

- a,b)** Tribal Cultural Resources are either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that is either on or eligible for inclusion in the CRHR or a local historic register; or (2) a resource that the lead agency, at its discretion and supported by substantial evidence, chooses to treat as a Tribal Cultural Resource.

Additionally, a cultural landscape may also qualify as a Tribal Cultural Resource if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in California PRC 21084.1), a unique archaeological resource (as defined in California PRC 21083.2[g]), or non-unique archaeological resources (as described in California PRC 21083.2[h]), may also be a Tribal Cultural Resource if it conforms to the criteria to be eligible for inclusion in the CRHR.

Based the negative results of the Sacred Lands File database search, the lack of previously identified Tribal Cultural Resources in the project area, and the absence of Native American archaeological sites, human remains, or other Native American cultural resources revealed during the Cultural Resources background investigation or pedestrian survey, no Tribal Cultural Resources are known to be present within the project area.

Though very unlikely, the possibility remains that a Tribal Cultural Resource may be revealed during project-related ground-disturbing activities. If this were to occur, then it would be a potentially significant impact. Implementation of Mitigation Measure TCR-1 would reduce this impact to **less than significant** (*see* Mitigation Measures, Chapter 5).

### 3.19 Utilities and Service Systems

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XIX. UTILITIES AND SERVICE SYSTEMS.</b>					
<b>Would the project:</b>					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) The proposed project does not involve the construction of new or expanded water facilities, only the replacement of an existing obsolete concrete pipe that has become obsolete and unusable due to age and material type. Additionally, the proposed project will not require or result in new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. There would be **no impact**.
- b) The proposed project will use a portion of the existing water supply allocated to SWID and SWSD that is currently supplying this area for continued agricultural production and will result in a more reliable and efficient use of existing supplies due to improved conveyance facilities and connection between the districts during normal, dry and multiple dry years. Additionally, the water supplied by the proposed project will be used to service continued agricultural production of these lands and/or groundwater recharge to serve existing agricultural uses, when possible. Construction of the proposed project will not support or facilitate additional development beyond existing agricultural uses. This impact would be **less than significant**.
- c) There are no wastewater facilities associate with the proposed project. There would be **no impact**.

- d-e)** Since the new pipeline will be buried across the road from existing conveyance pipelines that will be capped off and abandoned in place, the only solid waste generation will be a very small amount of excavated material that will not be used for backfill of the trenches and will be hauled offsite to an approved facility or to a nearby parcel for SWID's use. The nearest approved facility is the Shafter-Wasco Recycling & Sanitary Landfill which has adequate capacity to accept waste through 2053 (Calrecycle 2019). This impact would be **less than significant**.



## 3.20 Wildfire

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XX. WILDFIRE.</b>					
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, <b>would the project:</b>					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a-d)** The proposed project site is located within the County road ROW and is surrounded by active agricultural areas. Construction of the proposed project will not generate sparks or increase fire risk in the project vicinity beyond what is possible under existing conditions, where heavy farm equipment is used on adjacent roadways and in fields. Additionally, the proposed project is not located within a state responsibility area or very high fire hazard severity zone (CalFire 2007a and 2007b). There would be **no impact** related to wildfire risk.

## 3.21 Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
<b>XXI. MANDATORY FINDINGS OF SIGNIFICANCE.</b>					
<b>Would the project:</b>					
a) Have the potential to substantially 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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3.21.1 Discussion

- a) The analysis conducted in this CEQA Environmental Checklist concludes that implementation of the proposed project would not have a significant impact on the environment. As evaluated in **Section 3.4, "Biological Resources,"** impacts on biological resources would be less than significant with mitigation incorporated. The proposed project would not substantially 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; or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in **Section 3.5 "Cultural Resources,"** the proposed project would not eliminate important examples of the major periods of California history or prehistory. This impact would be **less than significant**.
- b) As discussed in this IS, the proposed project would result in less-than-significant impacts or no impacts on aesthetics, agricultural and forestry, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and services systems, and wildfire.

The temporary nature of the proposed project's construction impacts (approximately 4 months during a single construction season) would result in no impacts or less-than-significant environmental impacts on the physical environment. None of the proposed project's impacts make cumulatively considerable, incremental contributions to significant cumulative impacts. This impact would be less than significant.

- c) The proposed project would result in less-than-significant impacts and would not cause substantial adverse effects on human beings, either directly or indirectly. The impact would be **less than significant**.

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# Chapter 4. References

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## Chapter 1. Introduction

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## Chapter 2. Project Background and Need

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## Chapter 3. Environmental Checklist

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### Chapter 3.2. Environmental Factors Potentially Affected

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## **Appendix A. Biological Resources Technical Report**

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# Biological Technical Report

Shafter-Wasco Irrigation District

Leonard Avenue Conveyance Improvement Project

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Prepared for:

Shafter-Wasco  
Irrigation District

November 2019

Prepared by:



Consulting  
Engineers and  
Scientists



# **Biological Technical Report**

## **Shafter-Wasco Irrigation District**

### **Leonard Avenue Conveyance Improvement Project**

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November 27, 2019

Project No. 1904700





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## Abbreviations and Acronyms

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AFY	acre feet per year
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Kern County
CVP	Central Valley Project
CWA	Clean Water Act
ESA	Endangered Species Act
GEI	GEI Consultants, Inc.
project	Leonard Avenue Conveyance Improvement Project
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SWID	Shafter-Wasco Irrigation District
SWSD	Semitropic Water Storage District
USACE	U.S. Army of Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

# 1.0 Introduction

---

This biological technical report addresses sensitive biological resources that could be affected by implementing the Leonard Avenue Conveyance Improvement Project (project). The potential for special-status species to occur in the project area and be affected by project implementation is evaluated herein.

## 1.1 Background and Project Need

The Shafter-Wasco Irrigation District (SWID) is located on the San Joaquin Valley floor in northern Kern County (County). The project site is approximately 4 miles southwest of Wasco and approximately 15 miles northwest of Bakersfield (**Figure 1-1**).

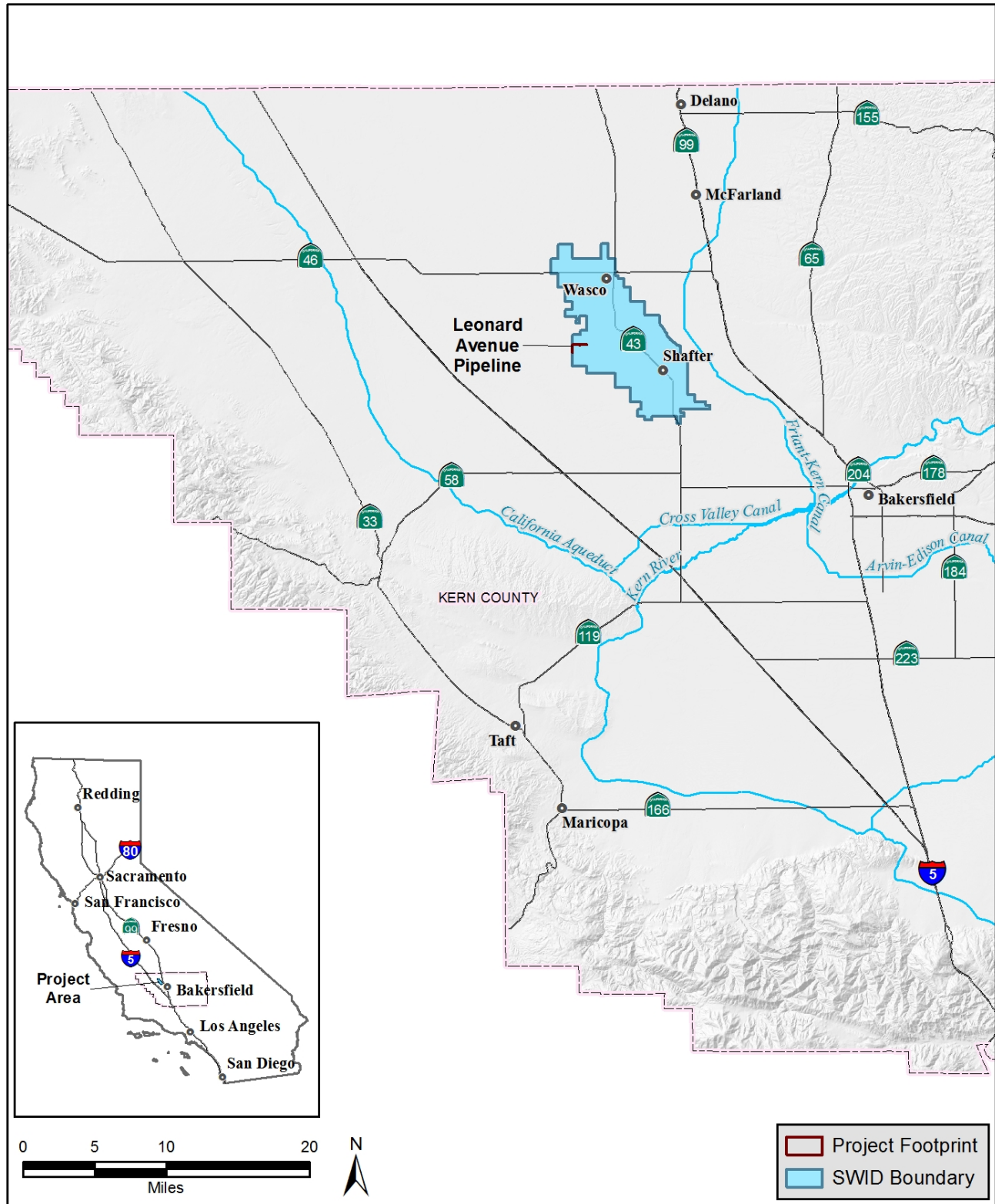
SWID's service area includes approximately 39,000 acres, with approximately 32,600 irrigated acres (84% of the service area). A cost-share funding agreement was recently executed between the U.S. Bureau of Reclamation (Reclamation) and SWID. The proposed project is funded under Reclamation Agreement #R19AP00258.

Conjunctive water use is practiced by SWID and its neighboring districts, including Semitropic Water Storage District (SWSD). During drought periods, SWID and SWSD growers currently operate groundwater wells to meet irrigation demand. The intent of the proposed project is to enhance regional water supply reliability and improve operational efficiency and flexibility. The project would allow SWID and SWSD to accept excess Central Valley Project (CVP) water during wet years, for supplemental use during drier water years when there is little-to-no allocation from the CVP. This flexibility will reduce reliability on annual CVP allocation fluctuations and water supplies produced from the Sacramento-San Joaquin Bay Delta.

During wet years, when SWID and SWSD are often unable to immediately use the entirety of their allocated CVP water supply, SWID would be able to send excess CVP water through a new, proposed pipeline, to SWSD's distribution system, for storage in on-farm reservoirs within SWSD. This connection would enhance water supply reliability, as it allows for the delivered water to be used for irrigation during peak-demand months, and dry periods. Providing a firmer water supply also ensures economic viability for irrigators and other water users in the region.

By providing a way for the water to be conveyed through SWID's new pipeline to SWSD's distribution system whenever possible, the project would increase the flexibility of CVP deliveries. This would allow other regional districts and agencies to more precisely schedule their water deliveries and result in better management of surface water and groundwater resources. By reducing the strain on the groundwater subbasin, this project will help alleviate pumping costs and curb spikes in the cost of water during drought years, by supplementing surface water with sustainably managed groundwater from recharged basins.

**Figure 1-1. Project Location.**



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Source: Shafter-Wasco Irrigation District 2019, adapted by GEI Consultants, Inc. in 2019

In recognition of the value of conserving groundwater, SWID has set a goal to achieve a measurable reduction of its current applied surface water and groundwater pumping; however, in order to facilitate more efficient water use, and reduce groundwater pumping within SWID during drought years, SWID and SWSD must be able to effectively move water between their service areas. Currently, movement of water between the districts is operationally-constrained by the lack of a connection in the project vicinity.

The proposed project is anticipated to convey 2,880-acre feet per year (AFY) of CVP wet-period water into SWSD. The water savings will be credited equally to SWID and SWSD. Therefore, both SWID and SWSD, will receive 1,440 AFY of water saving credits, and a total of 2,880 AFY of water will be better managed.

## **1.2 Project Description**

The proposed project would install a new 1.5-mile-long, 20 cubic feet per second, 27-inch bi-directional polymerized vinyl chloride pipe in the County road right-of-way (ROW) on the north side of Merced Avenue and the west side of Leonard Avenue (**Figure 1-2** and **Figures 1-3 – 1-5**). The new Leonard Avenue pipeline will begin at the intersection of Magnolia Avenue and Merced Avenue, where it will connect to an existing SWID lateral. The new pipeline will travel approximately 1 mile west along Merced Avenue, to the intersection with Leonard Avenue. The pipeline will then turn south and follow Leonard Avenue for approximately 0.5 mile, terminating at an unimproved farm road where it will connect to the SWSD distribution system. The pipeline will also connect to four existing, 8-inch SWID turnouts: one near the corners of Merced Avenue and Magnolia Avenue and three near the corners of Merced Avenue and Western Avenue. Additionally, a 0.5-mile section of existing, obsolete concrete pipe along the south side of Merced Avenue, between Magnolia Avenue and Western Avenue, will be capped and abandoned in place. SWID would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW.

The new pipeline will be installed in a trench approximately 7 feet deep, on lands previously disturbed during road construction. All work and equipment staging will take place within an up to 60-foot-wide construction corridor. The construction corridor maximizes available space within the County road ROW and ensures that no adjacent agricultural crops would be removed. The total project site, including construction limits, is 11.28 acres. Areas surrounding the project site consist of agricultural lands currently in orchard and vineyard production. As mentioned previously, construction activities would not require the removal of any orchard or vineyard crops.

Construction activities include excavation of soils to install all buried pipe. All trenches will be backfilled with excavated material, ensuring all pipelines receive 4 feet of cover, and the ground over the new pipeline will be restored to its existing grade. A very small amount of spoils may need to be disposed of offsite at an approved facility. A 10-foot-wide permanent easement will be obtained within the County road ROW to allow for maintenance of the pipeline by SWID.

## **1.3 Hours of Construction**

Construction activities will be limited to between 7 AM and 5 PM, Monday through Friday, with no work on holidays. Equipment maintenance activities will be performed during normal working hours.

## **1.4 Construction Schedule**

The proposed project would be completed during an approximately 4-month period between August 2020 and February 2021.

## **1.5 Construction Equipment**

Construction vehicles would consist of a front wheel loader, excavator, water truck, backhoe, haul truck, and pickup trucks.

## **1.6 Site Access, Staging, and Material Disposal**

Access to the construction area would be confined to existing paved and unpaved roads. The construction corridor/work area for the new pipe and connections would not exceed a total of 60 feet wide, and all equipment staging and excavation would be contained within the construction corridor along the County road ROW. All trenches will be backfilled with material that was excavated from the trenches. No fill would be transported to the site, and a very small amount of spoils may need to be disposed of offsite at an approved facility.

## **1.7 Site Restoration**

As mentioned previously, all trenches will be backfilled and the ground over the new pipeline will be restored to its existing grade.

## **1.8 Biological Resources Assessment Methods**

### **1.8.1 *Pre-field Investigation***

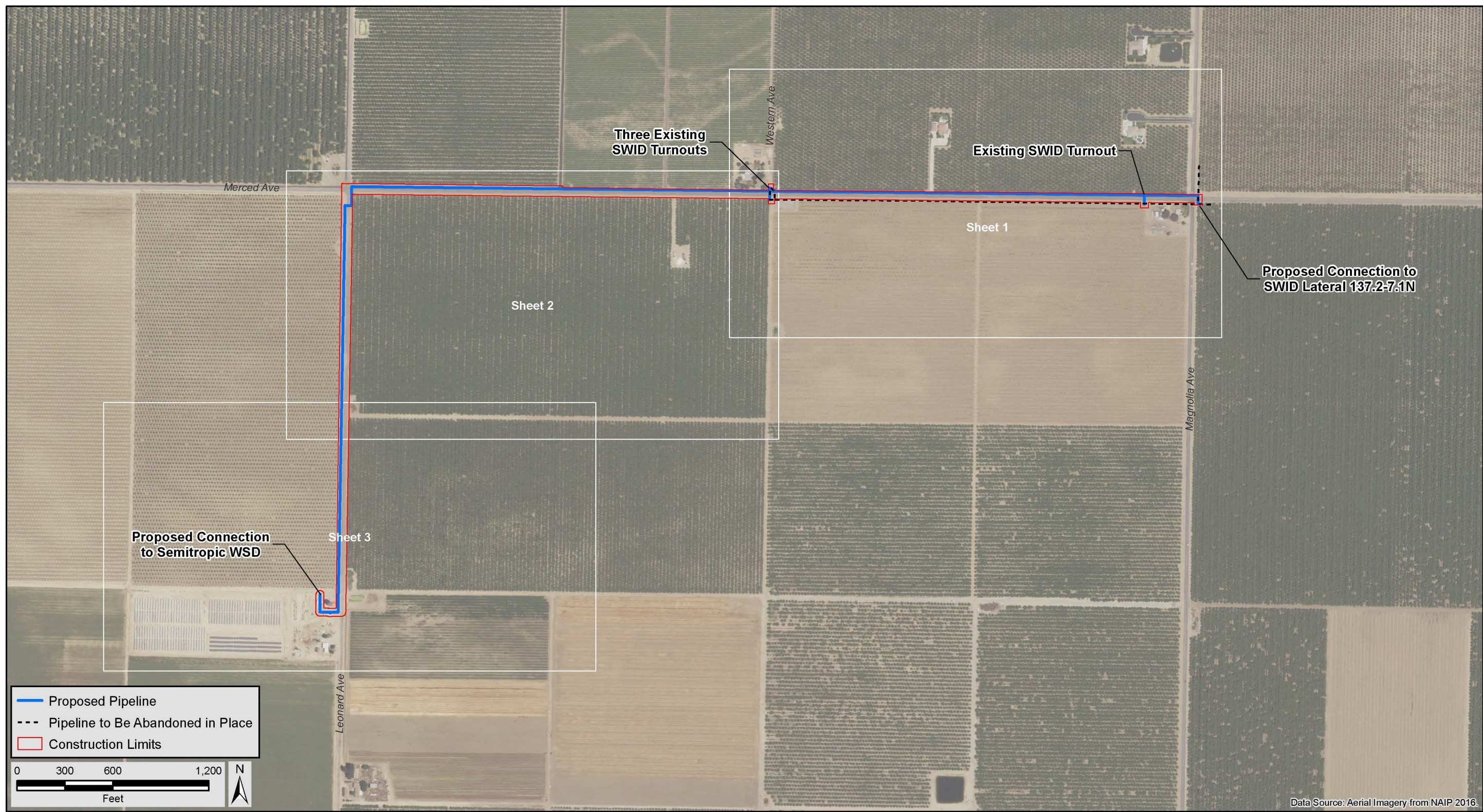
Before conducting the field survey, GEI Consultants, Inc. (GEI) reviewed the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2019) and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019). These reviews were centered on the Wasco SW U.S. Geological Survey (USGS) 7.5-minute quadrangle and included the eight surrounding quadrangles. An official list of federally-threatened and endangered species that could occur in the project area was obtained from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation website (USFWS 2019a); the USFWS online map of critical habitat for federally-threatened and endangered species (USFWS 2019b) also was reviewed. Results of the CNDDB and CNPS Inventory queries and the USFWS list are provided in **Appendix B**.

### **1.8.2 *Field Survey***

A field survey of the project site was conducted by GEI biologist Anne King on November 7, 2019. The survey focused on evaluating potential for special-status species to occur on or adjacent to the project site and be affected by project activities. The survey area included an approximately 60-foot-wide corridor along the pipeline route, including the shoulder on both sides of the roadways. During the field survey, the high temperature was approximately 80 degrees Fahrenheit, skies were clear, and there was no wind.



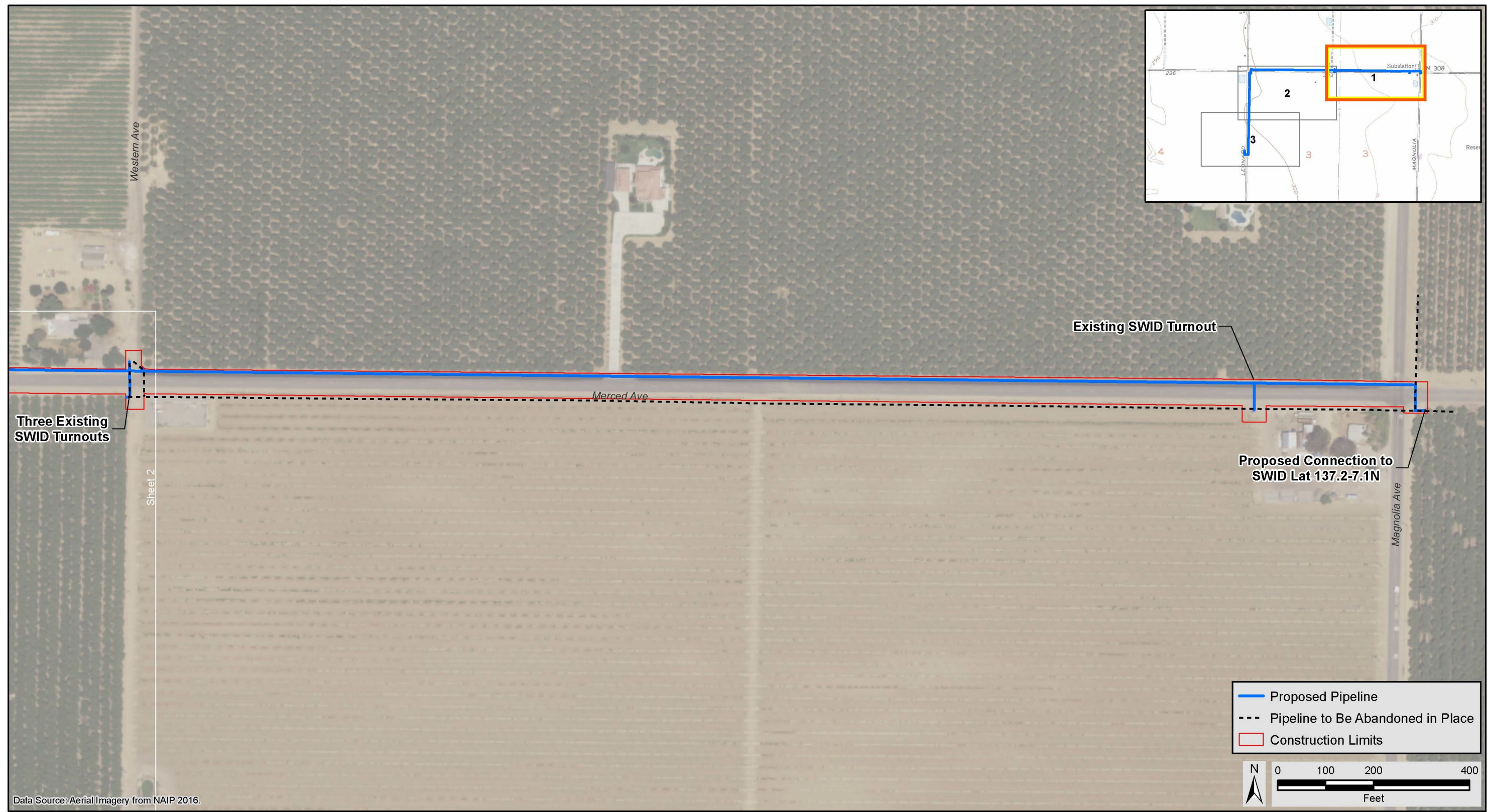
Figure 1-2. Project Overview.



Source: Shafter-Wasco Irrigation District 2019, adapted by GEI Consultants, Inc. in 2019



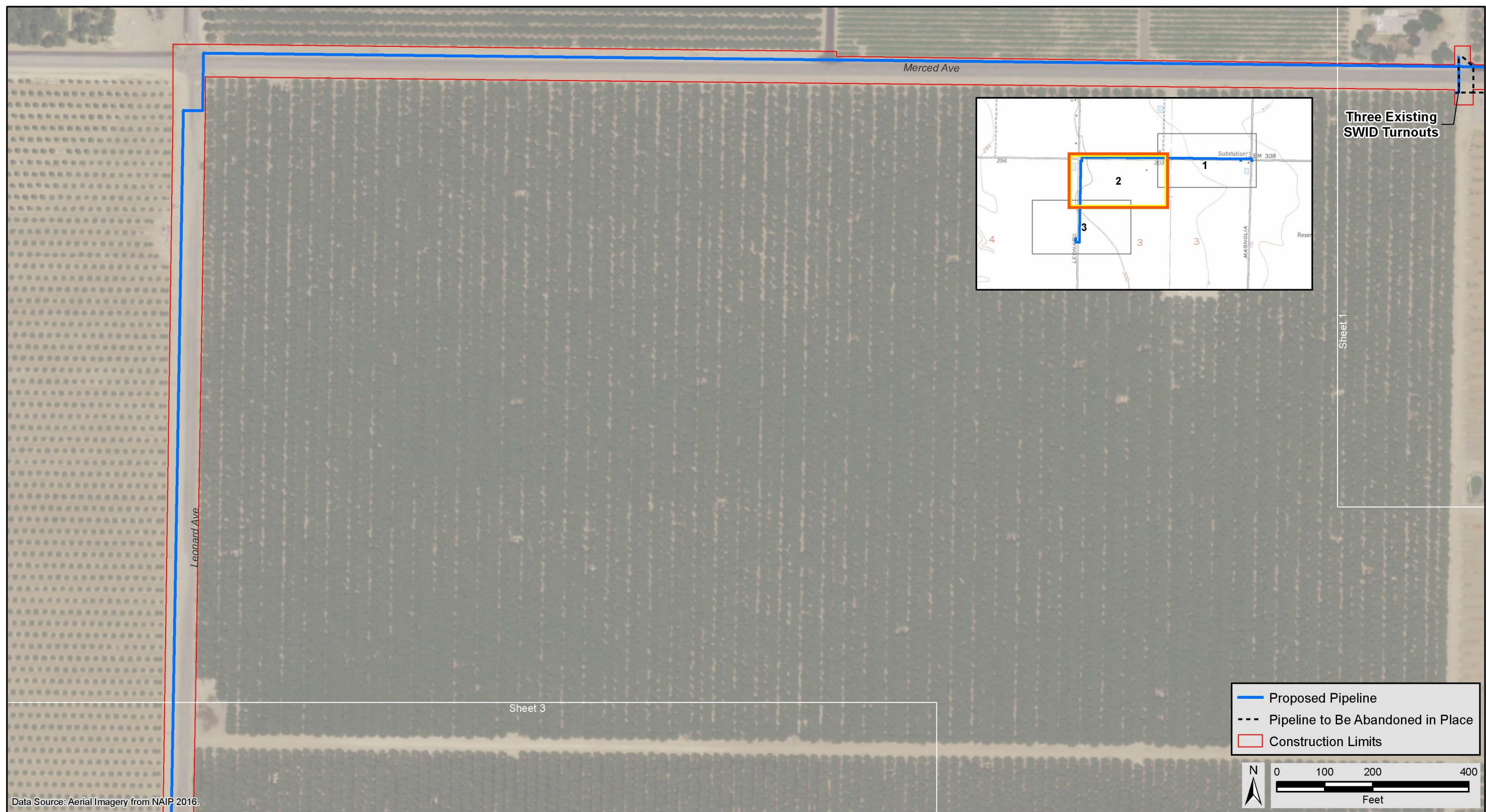
Figure 1-3. Project Detail - Eastern End of Project Alignment



Source: Shafter-Wasco Irrigation District 2019, adapted by GEI Consultants, Inc. in 2019



Figure 1-4. Project Detail – Central Portion of Project Alignment



Source: Shafter-Wasco Irrigation District 2019, adapted by GEI Consultants, Inc. in 2019

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Figure 1-5. Project Detail - Western End of Project Alignment



Source: Shafter-Wasco Irrigation District 2019, adapted by GEI Consultants, Inc. in 2019



## 2.0 Environmental Setting

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The project site is located in the southern San Joaquin Valley and is entirely comprised of roadways and active agricultural land. Topography is flat, with an average elevation of approximately 300 feet above mean sea level. Representative photographs of the project site are provided in **Appendix B**.

### 2.1 Vegetation and Wildlife

The project site is limited to existing paved roadways and adjacent barren dirt road shoulders and other barren dirt areas adjacent to existing water supply infrastructure and rural residential structures. No native vegetation assemblages are present on or adjacent to the project site. All adjacent agricultural lands are actively cultivated in almond orchards or vineyards, and vegetation at adjacent residences is limited to ornamental trees and shrubs.

Agricultural habitats adjacent to the project site support a low diversity of wildlife species that are adapted to these intensely managed and relatively disturbed environments. Because the project site and adjacent areas are completely comprised of paved roadways, actively cultivated lands, and rural residences, only the most mobile species (e.g., birds and mammals with large home ranges) that typically use highly altered habitats are likely to occur on the project site.

### 2.2 Special-status Species

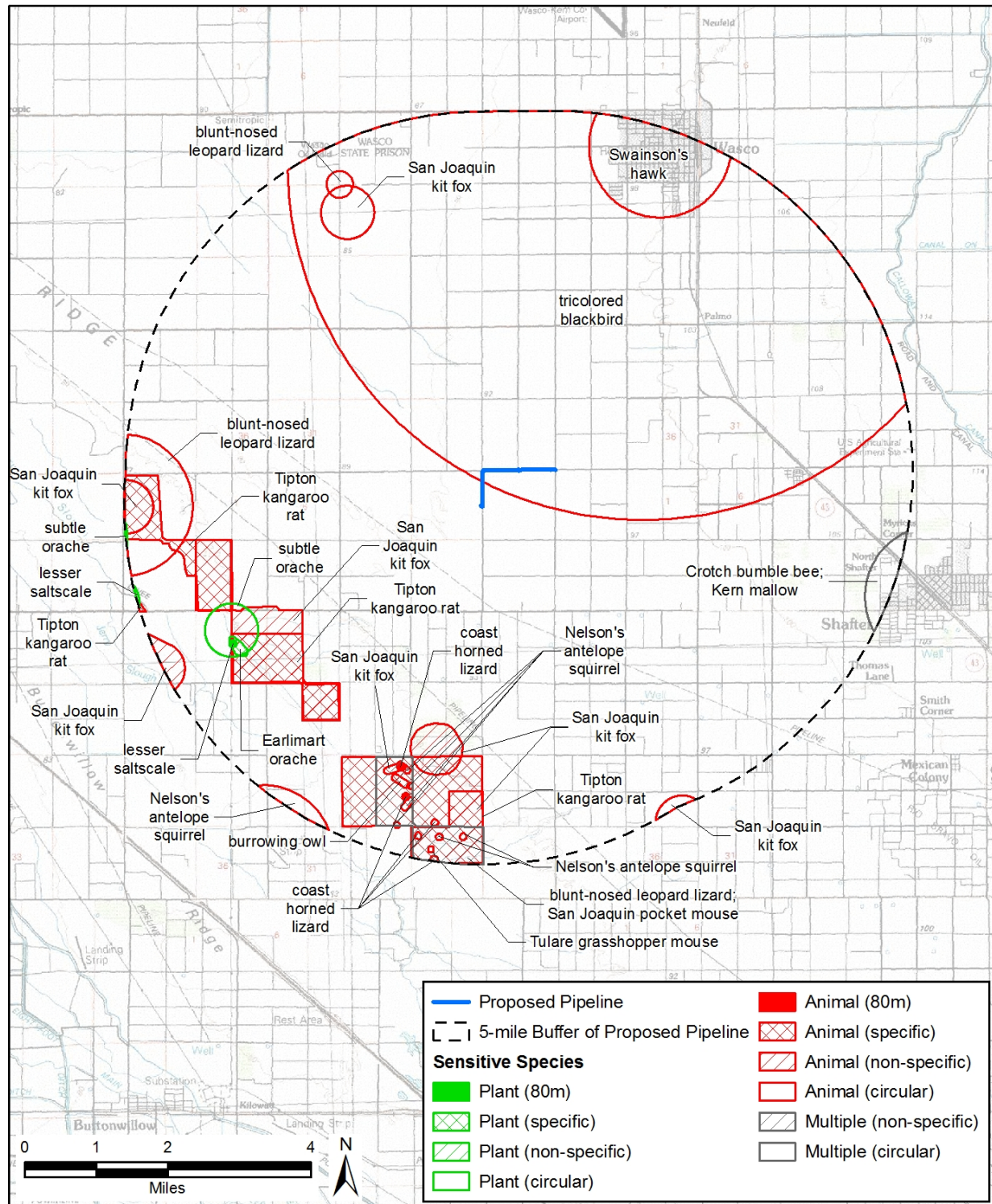
For purposes of this analysis, special-status species include plants and animals that fall into any of the following categories:

- taxa (i.e., taxonomic categories or groups) officially listed by the federal government or the state of California as endangered, threatened, or rare
- candidate taxa for federal or state listing as endangered or threatened
- taxa proposed for federal or state listing as endangered or threatened
- taxa (i.e., taxonomic categories or groups) that meet the criteria for listing
- wildlife species identified by CDFW as species of special concern
- plant taxa considered by CDFW to be “rare, threatened, or endangered in California” (i.e., with a California Rare Plant Rank of 1B or 2B)
- species listed as Fully Protected under the California Fish and Game Code
- species afforded protection under local or regional planning documents

Results of the CNDDDB USGS 9-quadrangle searches (*see Appendix B*) yielded occurrences of 38 special-status plants and animals, 14 of which have been documented within 5 miles of the project site, as shown in **Figure 2-1**. (Note: Not all species tracked in the CNDDDB and included in the search results in

Appendix B and on Figure 3 meet the special-status definition described above.) However, most of these occurrences are historical (i.e., from 30 or more years ago) and are from natural habitats, which do not occur on the project site.

**Figure 2-1. California Natural Diversity Database Occurrences of Special-status Plants and Wildlife within 5 Miles of the Project Site.**



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Source: CDFW 2019, adapted by GEI Consultants, Inc. 2018

**Table 2-1** provides information on each special-status plant that was included in the CNDDDB or CNPS search results (the USFWS species list does not include any plants). Based on observations made during the field survey, habitat for special-status plants is absent from the project site, and none of the species listed in Table 2-1 have potential to occur on or adjacent to any portion of the project site.

**Table 2-2** provides information on each special-status animal that was included in the CNDDDB search results or on the USFWS species list. Based on the review of existing documentation and habitat evaluations made during field survey, none of these species are likely to occur along the pipeline route. Because the project site and adjacent areas do not support natural vegetation or aquatic habitat, suitable habitat for most of the species is absent. Only three species were further evaluated for potential to occur on the site: Swainson's hawk (*Buteo swainsoni*), western mastiff bat (*Eumops perotis californicus*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

Large ornamental trees at several rural residences and agricultural facilities on or near the project site provide poor-quality nest sites for Swainson's hawk (state-listed as threatened). Kern County is at the south end of the Swainson's hawk breeding range, and the species occurs sparsely in this region; no nesting pairs were detected in Kern County during the California Department of Fish and Game 2005 inventory (CDFG 2007). The CNDDDB includes only 20 presumed extant active Swainson's hawk nests or nesting pairs documented since 1990 in the County, and none of these are within 10 miles of the project site. Based on the scarcity of Swainson's hawks in the region and the very small number of potential nest trees, potential for this species to nest on or near the project site is extremely low.

The project site provides very poor-quality habitat for San Joaquin kit fox (federally-listed as Endangered and state-listed as Threatened). Although this species occurs in a variety of habitats, including agricultural land, individuals prefer natural open habitats with loose-textured soils, and dens typically occur in open areas with grass or scattered brush (USFWS 1998, 2010). There are no CNDDDB occurrences of kit fox from the immediate project vicinity. The nearest CNDDDB occurrence is from 1993, in an isolated area of native scrub habitat approximately 3 miles southwest of the project site. However, since this occurrence was recorded, the amount of native habitat at this location has been substantially reduced by agricultural development, and most of the crops immediately adjacent to the habitat have been converted from field crops to orchards and dairy farms. Based on the very poor quality of habitat on and surrounding the project site for several miles, lack of travel corridors, lack of documented historical occurrences from the immediate project vicinity, and reduced habitat availability and quality at and adjacent to the nearest documented occurrence, the potential for San Joaquin kit fox to occur on the project site is extremely low.

CNDDDB occurrences of western mastiff bat (California Species of Special Concern) in the southern San Joaquin Valley are generally from the valley floor margins, adjacent to hills that likely provide suitable natural roost sites. This species has very low potential to occur on or adjacent to the project site, because the nearest known occurrences are approximately 15 miles away, there is no suitable natural roosting habitat within at least 10 miles, and the project vicinity provides very poor artificial roost sites.

**Table 2-1. Special-status Plants Evaluated for Potential to Occur on the Project Site.**

Species	Blooming Period	Status <sup>1</sup>		Habitat Associations	Potential to Occur on Project Site
		Federal	State		
Horn's milk-vetch <i>Astragalus hornii</i> var. <i>hornii</i>	May–October	–	1B.1	Alkaline lake margins; playas and meadows and seeps	None; no suitable habitat is present on or adjacent to the project site.
Heartscale <i>Atriplex cordulata</i> var. <i>cordulata</i>	April–October	–	1B.2	Sandy saline or alkaline soils in chenopod scrub and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Earlimart orache <i>Atriplex cordulata</i> var. <i>erecticaulis</i>	August–September (November)	–	1B.2	Valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Lost Hills crownscale <i>Atriplex coronata</i> var. <i>vallicola</i>	April–September	–	1B.2	Alkaline soils in chenopod scrub and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Lesser saltscale <i>Atriplex minuscula</i>	May–October	–	1B.1	Alkaline sandy soils in chenopod scrub, valley and foothill grassland, and playas	None; no suitable habitat is present on or adjacent to the project site.
Subtle orache <i>Atriplex subtilis</i>	June–September	–	1B.1	Alkaline soils in valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
California jewelflower <i>Caulanthus californicus</i>	February–May	E	E/1B.1	Sandy soil in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Slough thistle <i>Cirsium crassicaule</i>	February–May	–	1B.1	Chenopod scrub, riparian scrub, and marshes, swamps, and sloughs	None; no suitable habitat is present on or adjacent to the project site.
Recurved larkspur <i>Delphinium recurvatum</i>	March–June	–	1B.2	Alkaline soils in chenopod scrub, cismontaine woodland, and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	January–May	E	1B.1	Open sandy and clay soils, often at edge of clearings in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	February–June	–	1B.2	Marshes and swamps, playas, and vernal pools	None; no suitable habitat is present on or adjacent to the project site.
Munz's tidy-tips <i>Layia munzii</i>	March–April	–	1B.2	Alkaline clay soils in chenopod scrub and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
Showy golden madia <i>Madia radiata</i>	March–May	–	1B.1	Cismontaine woodland and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.
San Joaquin woollythreads <i>Monolopia congdonii</i>	(January) February–May	E	1B.2	Sandy soils in chenopod scrub and valley and foothill grassland	None; no suitable habitat is present on or adjacent to the project site.

Species	Blooming Period	Status <sup>1</sup>		Habitat Associations	Potential to Occur on Project Site
		Federal	State		
California alkali grass <i>Puccinellia simplex</i>	March–May	–	1B.2	Alkaline and vernal mesic sinks, flats, and lake margins; chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools	None; no suitable habitat is present on or adjacent to the project site.
Kings gold <i>Tropidocarpum californicum</i>	February–March	–	1B.1	Chenopod scrub	None; no suitable habitat is present on or adjacent to the project site.

<sup>1</sup> Status Definitions

Legal Status

E = Listed as Endangered under the federal or state Endangered Species Act

California Rare Plant Ranks

1B = Plant species considered rare or endangered in California and elsewhere (but not legally-protected under the federal or California Endangered Species Acts).

California Rare Plant Rank Extensions

.1 = Seriously endangered in California (greater than 80% of occurrences are threatened and/or have a high degree and immediacy of threat).

.2 = Fairly endangered in California (20 to 80% of occurrences are threatened and/or have a moderate degree and immediacy of threat).

– = no status

Sources: CDFW 2019; CNPS 2019; compiled and augmented by GEI Consultants, Inc.

**Table 2-2. Special-status Fish and Wildlife Evaluated for Potential to Occur on the Project Site.**

Species	Status		Habitat Associations	Potential to Occur on the Project Site
	Federal	State		
Fish				
Delta smelt <i>Hypomesus transpacificus</i>	T	E	Semi-anadromous; typically restricted to the Sacramento-San Joaquin River Delta and the lower Sacramento River	None; no suitable habitat is present on or adjacent to the project site, which is outside the range of this species.
Invertebrates				
Crotch bumble bee <i>Bombus crotchii</i>	–	C	Open grassland and scrub habitats; primarily nests underground	None; no suitable habitat is present on or adjacent to the project site.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	–	Vernal pools and seasonal wetlands, including a wide range of sizes and depths.	None; no suitable habitat is present on or adjacent to the project site.
Amphibians				
California red-legged frog <i>Rana draytonii</i>	T	SSC	Lowlands and foothill areas, in or near permanent deep water with dense, shrubby or emergent riparian vegetation	None; no suitable habitat is present on or adjacent to the project site, which is outside the current range of this species.
Reptiles				
Western pond turtle <i>Emys marmorata</i>	–	SSC	Permanent or nearly permanent water bodies; nests in sunny uplands near aquatic habitat	None; no suitable habitat is present on or adjacent to the project site.

Species	Status		Habitat Associations	Potential to Occur on the Project Site
	Federal	State		
Blunt-nosed leopard lizard <i>Gambelia silus</i>	E	E, FP	Sparsely vegetated and relatively flat grasslands and alkali and desert scrub habitats	None; no suitable habitat is present on or adjacent to the project site.
Coast horned lizard <i>Phrynosoma blainvillii</i>	–	SSC	Most commonly along sandy washes with scattered low bushes	None; no suitable habitat is present on or adjacent to the project site.
San Joaquin coachwhip <i>Masticophis flagellum ruddocki</i>	–	SSC	Open, dry habitats with little or no tree cover, including grasslands and saltbush scrub	None; no suitable habitat is present on or adjacent to the project site.
California glossy snake <i>Arizona elegans occidentalis</i>	–	SSC	Wide variety of habitats, including grassland and scrub, often with loose or sandy soils	None; no suitable habitat is present on or adjacent to the project site.
Giant gartersnake <i>Thamnophis gigas</i>	T	T	Open water and emergent vegetation in marshes, sloughs, and other aquatic habitats; also requires open upland habitat	None; no suitable habitat is present on or adjacent to the project site, which is outside the current range of this species.
<b>Birds</b>				
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T	–	Sandy beaches, salt pond levees, and shores of alkali lakes	None; no suitable habitat is present on or adjacent to the project site.
Mountain plover <i>Charadrius montanus</i>	BCC	SSC	Flat areas with short vegetation and bare ground, including short grasslands, freshly plowed and sprouting fields	None; no suitable habitat is present on or adjacent to the project site.
Burrowing owl <i>Athene cunicularia</i>	BCC	SSC	Nests and forages in grasslands, agricultural lands, and other open habitats with natural or artificial burrows or friable soils	None; no suitable habitat is present on or adjacent to the project site.
Swainson's hawk <i>Buteo swainsoni</i>	BCC	T	Nests in riparian forest and scattered trees; forages in grasslands and agricultural fields	Low; alfalfa fields near the south end of the project site provide suitable foraging habitat, but the few large trees in the project vicinity are at rural residences and unlikely to be used for nesting; the only known nest within 10 miles of the project site was documented in 1929.
Le Conte's thrasher <i>Toxostoma lecontei</i>	BCC	SSC	Dry, open scrub habitats with dense spiny vegetation	None; no suitable habitat is present on or adjacent to the project site.
Tricolored blackbird <i>Agelaius tricolor</i>	BCC	C	Nests in dense cattails and tules, riparian scrub, grain crops, and other low dense vegetation; forages in grasslands and agricultural fields	None; no suitable habitat is present on or adjacent to the project site.
<b>Mammals</b>				
Buena Vista Lake ornate shrew <i>Sorex ornatus relictus</i>	E	SSC	Moist soils in marsh and riparian habitat, with stumps, logs and litter for cover	None; no suitable habitat is present on or adjacent to the project site.
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	–	SSC	Dry, open scrublands	None; no suitable habitat is present on or adjacent to the project site.
Giant kangaroo rat <i>Dipodomys ingens</i>	E	E	Dry grasslands and alkali scrub with sandy loam soils	None; no suitable habitat is present on or adjacent to the project site.



Species	Status		Habitat Associations	Potential to Occur on the Project Site
	Federal	State		
Short-nosed kangaroo rat <i>Dipodomys ingens</i>	–	SSC	Grassland and shrub habitats with friable alkali soils	None; no suitable habitat is present on or adjacent to the project site.
Tipton kangaroo rat <i>Dipodomys nitratoideus</i>	E	E	Saltbrush and sink scrub vegetation with soft, friable soils	None; no suitable habitat is present on or adjacent to the project site.
Nelson's antelope squirrel <i>Ammodramus nelsoni</i>	–	T	Grasslands and open shrubland with gullies and washes	None; no suitable habitat is present on or adjacent to the project site.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	T	Primarily grasslands and sparsely vegetated shrublands with loose-textured soils; can also use open agricultural habitats	Extremely low; habitat on and adjacent to the project site is of very poor quality, and there are no CNDDB occurrences within 10 miles in the past 25 years.
American badger <i>Taxidea taxus</i>	–	SSC	Dry, open areas in various habitats with friable soils and uncultivated ground	None; no suitable habitat is present on or adjacent to the project site.
Western mastiff bat <i>Eumops perotis californicus</i>	–	SSC	Various open, semi-arid to arid habitats; roosts in cliff crevices, high buildings, tunnels, and trees	Very low; individuals could occasionally forage in the vicinity, but potential roosting habitat is very limited.

Notes: CNDDB = California Natural Diversity Database

**<sup>1</sup> Status Definitions**

- E = Listed as Endangered under the federal or state Endangered Species Act
- T = Listed as Threatened under the federal or state Endangered Species Act
- C = Candidate for listing as Threatened or Endangered under the state Endangered Species Act
- BCC = Federal Bird of Conservation Concern
- FP = Fully Protected under the California Fish and Game Code
- SSC = California Species of Special Concern

Sources: CDFW 2019; USFWS 2019a; compiled and augmented by GEI Consultants, Inc.

## 2.3 Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through the California Environmental Quality Act, the federal Endangered Species Act (ESA), Section 1602 of the California Fish and Game Code, Section 404 of the federal Clean Water Act (CWA), and the Porter-Cologne Water Quality Control Act. Sensitive habitats may be of special concern for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat for special-status species.

### 2.3.1 Critical Habitat

Critical habitat is a geographic area containing features determined to be essential to the conservation of a species listed as threatened or endangered under the ESA. No designated or proposed critical habitat is present on or adjacent to the project site.

### 2.3.2 Other Habitats Protected under Federal or State Regulations

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into aquatic features that qualify as waters of the United States; wetlands that support hydrophytic vegetation, hydric soil types, and wetland hydrology may also qualify for USACE jurisdiction under Section 404 of the CWA. Under Section 401 of the CWA, the Central Valley Regional Water Quality Control Board (RWQCB) regulates discharge of dredged or fill material into waters of the United States that drain to the Central Valley, to ensure such activities do not violate state or federal water

quality standards; the Central Valley RWQCB also regulates waters of the state, in compliance with the Porter-Cologne Act. In addition, diversions, obstruction, or changes to the natural flow or bed, channel, or bank of rivers, streams, and lakes in California that support wildlife resources are subject to the regulatory approval of CDFW pursuant to Section 1602 of the California Fish and Game Code. No aquatic habitat that qualifies for regulation under Section 401 or 404 of the CWA or Section 1602 of the California Fish and Game Code is present on the project site.

### **2.3.3      *Natural Communities of Special Concern***

CDFW maintains a list of terrestrial natural communities that are native to California, the List of Vegetation Alliances and Associations (CDFG 2010). Within that list, CDFW identifies and ranks natural communities of special concern considered to be highly imperiled. The project site does not support any natural communities of special concern.

## 3.0 Potential Impacts

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Implementing the project would temporarily disturb the barren margins of existing paved roads and active agricultural areas adjacent to orchards and vineyard. No natural habitat would be affected by any project activities, and no agricultural crops would be removed.

The impact discussions below focus on resources determined to have potential to be affected by implementing the project. Therefore, special-status species that do not have potential to occur on or near the project site (i.e., because suitable habitat is absent or the project site is outside the species' current range) are not addressed in these discussions; sensitive habitats, which do not occur on the project site, also are not discussed below.

### 3.1 Special-status Wildlife

Swainson's hawk is the only special-status bird with potential to occur on or adjacent to the project site (*see* Table 2-2), although this potential is low. Alfalfa fields near the project site provide potential foraging habitat for this species, but trees in the area provide poor-quality nest sites. Because active Swainson's hawk nests are rare in Kern County and none have been documented within 10 miles of the project site in the past 30 years, Swainson's hawk occurrence in the project vicinity is likely to be limited to migratory individuals, and no impacts on nesting activity would occur. In addition, because the project site is subject to regular disturbance from agricultural activities, road traffic, and rural residences, and project disturbance would be similar in intensity to existing agricultural activities, project activities would not disturb any potential foraging activities in the project vicinity.

Western mastiff bat has very low potential to occur on or adjacent to the project site (*see* Table 2-2). Because potential bat roosting habitat in the project vicinity is limited to poor-quality artificial sites (e.g., residential and agricultural structures), and project disturbance would be similar in intensity to agricultural activities, there would be no impacts to roosting bats. In addition, foraging activities of mastiff bats that may occasionally use the project site would not be disturbed by construction activities.

San Joaquin kit fox is extremely unlikely to occur on or adjacent to the project site, based on the very poor habitat quality and distance to remnant natural habitat and potential travel corridors, such as Calloway Canal and Friant Kern Canal. Therefore, this species is not anticipated to be impacted by the proposed project.

### 3.2 Other Potential Impacts on Biological Resources

The project site is part of a much larger extent of agricultural lands and does not serve as a corridor or other primary route for wildlife movement. The project site also does not serve as a nursery site for any wildlife species. Therefore, implementing the proposed project would not interfere with

the movement of any native resident or migratory wildlife or impede the use of native wildlife nursery sites.

The project site is within the area anticipated to be covered by the Kern County Valley Floor Habitat Conservation Plan. A draft of the plan was issued more than 10 years ago (Kern County Planning Department 2006), but a final plan has not been released. The project site is within an extensive area of “White Zone,” which is of lower conservation concern and not identified for acquisition of preserve areas. Therefore, implementing the proposed project would not conflict with any provisions, guidelines, goals, or objectives anticipated to be included in a potential final and adopted version of this plan.

A low diversity of common birds that use agricultural habitats could nest in orchards, vineyard, and ornamental vegetation adjacent to the project site. Because the proposed pipeline and associated connections would be installed within existing barren corridors along paved roadways and at a barren agricultural equipment storage area, project activities would not result in direct destruction of active nests, and the project is not anticipated to violate federal or state regulations that protect bird nests. In addition, potential for project activities to affect common plant and wildlife species is minimal and would not substantially reduce their abundance or cause any species to drop below self-sustaining levels.

## 4.0 Impact Avoidance and Minimization Measures

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The following measures, consistent with USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011), shall be implemented by the District and its contractor(s) to ensure impacts on San Joaquin kit fox are avoided, in the very unlikely event an individual strays onto the site during project activities.

- Before project activities begin, an Environmental Awareness Program will be presented to all project personnel working on the project site. The program will be conducted by a qualified biologist with knowledge of San Joaquin kit fox. The program will address the following: biology and habitat needs; regulatory status and protection; measures required to reduce potential impacts during project construction; penalties for non-compliance; and benefits of compliance.
- Project activities will only occur during the day (between 30 minutes before sunrise and 30 minutes after sunset).
- A qualified biologist will conduct a pre-construction San Joaquin kit fox survey of the action area. The survey will be conducted no more than 30 days before project activities begin. If potential dens for San Joaquin kit fox are found, exclusion zones will be established before project activities begin, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011).
- To prevent entrapment of San Joaquin kit fox during construction, all excavated, steep-walled holes or trenches more than 2 feet deep will be covered with plywood or similar materials at the end of each work day. If the trenches cannot be closed, one or more escape ramps of no more than a 45-degree slope will be constructed of earthen-fill or created with wooden planks. All covered or uncovered excavations will be inspected at the beginning, middle, and end of each day. Before trenches are filled, they will be inspected for trapped animals. If at any time a potential San Joaquin kit fox is discovered, project activities in the immediate vicinity will stop, a qualified biologist will be summoned to identify the species, and USFWS will be notified. Escape ramps or structures will be installed immediately to allow the animal(s) to escape. If a San Joaquin kit fox is unable to escape voluntarily, USFWS will be contacted immediately.
- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored on the ground at a construction site for one or more overnight periods will be thoroughly inspected for wildlife before the pipe is buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight will be capped. If a potential San Joaquin kit fox is discovered inside a pipe, all project activities that could result in take will stop, a qualified biologist will be summoned to identify the species, and USFWS will be notified. If a San Joaquin kit fox is unable to escape voluntarily, USFWS will be contacted immediately.

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## 5.0 References

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- . 2011 (January). *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance*. Sacramento Fish and Wildlife Office, Sacramento, CA.
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## **Appendix A – Special-Status Species Query Results**



## Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



**Query Criteria:** Quad< IS </span>(Wasco SW (3511954)<span style='color:Red'> OR </span>Wasco (3511953)<span style='color:Red'> OR </span>Wasco NW (3511964)<span style='color:Red'> OR </span>Lost Hills NE (3511965)<span style='color:Red'> OR </span>Pond (3511963)<span style='color:Red'> OR </span>Semitropic (3511955)<span style='color:Red'> OR </span>Lokern (3511945)<span style='color:Red'> OR </span>Buttonwillow (3511944)<span style='color:Red'> OR </span>Rio Bravo (3511943))<br /><span style='color:Red'> AND </span><span>Taxonomic Group<span style='color:Red'> IS </span></span>(Fish<span style='color:Red'> OR </span>Amphibians<span style='color:Red'> OR </span>Reptiles<span style='color:Red'> OR </span>Birds<span style='color:Red'> OR </span>Mammals<span style='color:Red'> OR </span>Mollusks<span style='color:Red'> OR </span>Arachnids<span style='color:Red'> OR </span>Crustaceans<span style='color:Red'> OR </span>Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Agelaius tricolor</i></b> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<b><i>Ammospermophilus nelsoni</i></b> Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
<b><i>Arizona elegans occidentalis</i></b> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<b><i>Athene cunicularia</i></b> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<b><i>Bombus crotchii</i></b> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<b><i>Buteo swainsoni</i></b> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<b><i>Charadrius alexandrinus nivosus</i></b> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<b><i>Charadrius montanus</i></b> mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
<b><i>Dipodomys ingens</i></b> giant kangaroo rat	AMAFD03080	Endangered	Endangered	G1G2	S1S2	
<b><i>Dipodomys nitratoideus brevinasus</i></b> short-nosed kangaroo rat	AMAFD03153	None	None	G3T1T2	S1S2	SSC
<b><i>Dipodomys nitratoideus nitratoideus</i></b> Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<b><i>Egretta thula</i></b> snowy egret	ABNGA06030	None	None	G5	S4	
<b><i>Emys marmorata</i></b> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<b><i>Eumops perotis californicus</i></b> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<b><i>Gambelia sila</i></b> blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
<b><i>Masticophis flagellum ruddocki</i></b> San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S2?	SSC
<b><i>Nycticorax nycticorax</i></b> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<b><i>Onychomys torridus tularensis</i></b> Tulare grasshopper mouse	AMAFF06021	None	None	G5T1T2	S1S2	SSC



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Perognathus inornatus</i></b> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<b><i>Phrynosoma blainvillii</i></b> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<b><i>Plegadis chihi</i></b> white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
<b><i>Sorex ornatus relictus</i></b> Buena Vista Lake ornate shrew	AMABA01102	Endangered	None	G5T1	S1	SSC
<b><i>Taxidea taxus</i></b> American badger	AMAJF04010	None	None	G5	S3	SSC
<b><i>Thamnophis gigas</i></b> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<b><i>Toxostoma lecontei</i></b> Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
<b><i>Vulpes macrotis mutica</i></b> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 26



## Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



**Query Criteria:** Quad (Wasco SW (3511954) OR Wasco (3511953) OR Wasco NW (3511964) OR Lost Hills NE (3511965) OR Pond (3511963) OR Semitropic (3511955) OR Lokern (3511945) OR Buttonwillow (3511944) OR Rio Bravo (3511943)) AND Taxonomic Group (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	PDFAB0F421	None	None	G4G5T1T2	S1	1B.1
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
<i>Atriplex cordulata</i> var. <i>erecticaulis</i> Earlimart orache	PDCHE042V0	None	None	G3T1	S1	1B.2
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	PDCHE04250	None	None	G4T2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Atriplex subtilis</i> subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
<i>Caulanthus californicus</i> California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
<i>Cirsium crassicaule</i> slough thistle	PDAST2E0U0	None	None	G1	S1	1B.1
<i>Delphinium recurvatum</i> recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
<i>Eriastrum hooveri</i> Hoover's eriastrum	PDPLM03070	Delisted	None	G3	S3	4.2
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Layia munzii</i> Munz's tidy-tips	PDAST5N0B0	None	None	G2	S2	1B.2
<i>Madia radiata</i> showy golden madia	PDAST650E0	None	None	G3	S3	1B.1
<i>Monolopia congdonii</i> San Joaquin woollythreads	PDASTA8010	Endangered	None	G2	S2	1B.2
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Tropidocarpum californicum</i> Kings gold	PDBRA33010	None	None	G1	S1	1B.1

Record Count: 17



\*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

## Plant List

18 matches found. [Click on scientific name for details](#)

### Search Criteria

Found in Quads 3511965, 3511964, 3511963, 3511955, 3511954, 3511953, 3511945 3511944 and 3511943;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Astragalus hornii var. hornii</a>	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	1B.1	S1	G4G5T1T2
<a href="#">Atriplex cordulata var. cordulata</a>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
<a href="#">Atriplex cordulata var. erecticaulis</a>	Earlimart orache	Chenopodiaceae	annual herb	Aug-Sep(Nov)	1B.2	S1	G3T1
<a href="#">Atriplex coronata var. coronata</a>	crownscale	Chenopodiaceae	annual herb	Mar-Oct	4.2	S3	G4T3
<a href="#">Atriplex coronata var. vallicola</a>	Lost Hills crownscale	Chenopodiaceae	annual herb	Apr-Sep	1B.2	S2	G4T2
<a href="#">Atriplex minuscula</a>	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	1B.1	S2	G2
<a href="#">Atriplex subtilis</a>	subtle orache	Chenopodiaceae	annual herb	Jun,Aug,Sep(Oct)	1B.2	S1	G1
<a href="#">Caulanthus californicus</a>	California jewelflower	Brassicaceae	annual herb	Feb-May	1B.1	S1	G1
<a href="#">Cirsium crassicaule</a>	slough thistle	Asteraceae	annual / perennial herb	May-Aug	1B.1	S1	G1
<a href="#">Delphinium recurvatum</a>	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
<a href="#">Eremalche parryi ssp. kernensis</a>	Kern mallow	Malvaceae	annual herb	Jan,Mar,Apr,May(Feb)	1B.2	S3	G3G4T3
<a href="#">Eriastrum hooveri</a>	Hoover's eriastrum	Polemoniaceae	annual herb	(Feb)Mar-Jul	4.2	S3	G3
<a href="#">Lasthenia glabrata ssp. coulteri</a>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
<a href="#">Layia munzii</a>	Munz's tidy-tips	Asteraceae	annual herb	Mar-Apr	1B.2	S2	G2
<a href="#">Madia radiata</a>	showy golden madia	Asteraceae	annual herb	Mar-May	1B.1	S3	G3
<a href="#">Monolopia congdonii</a>	San Joaquin woollythreads	Asteraceae	annual herb	(Jan)Feb-May	1B.2	S2	G2
<a href="#">Puccinellia simplex</a>	California alkali	Poaceae	annual herb	Mar-May	1B.2	S2	G3

11/12/2019	CNPS Inventory Results						
	grass						
<a href="#">Tropidocarpum californicum</a>	Kings gold	Brassicaceae	annual herb	Feb-Mar	1B.1	S1	G1

**Suggested Citation**

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 12 November 2019].



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**Questions and Comments**

[rareplants@cnps.org](mailto:rareplants@cnps.org)

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# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

November 12, 2019

Consultation Code: 08ESMF00-2020-SLI-0331

Event Code: 08ESMF00-2020-E-00937

Project Name: Leonard Avenue Conveyance Improvement Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

## To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2020-SLI-0331

Event Code: 08ESMF00-2020-E-00937

Project Name: Leonard Avenue Conveyance Improvement Project

Project Type: WATER SUPPLY / DELIVERY

**Project Description:** The proposed project involves the installation of a new 1.5 mile long, 20 cubic feet per second (cfs), 27-inch bi-directional PVC pipe within the Kern County road right-of-way (ROW) on the north side of Merced Avenue and the west side of Leonard Avenue (Figure 2 and Figures 3a-3c). The new Leonard Avenue pipeline will begin at the intersection of Magnolia Avenue and Merced Avenue, where it will connect to an existing SWID lateral. The new pipeline will travel approximately one mile to the west along Merced Avenue to the intersection with Leonard Avenue. The pipeline will then turn south and follow Leonard Avenue for approximately one-half mile, terminating at an unimproved farm road where it will connect to the SWSD distribution system. The pipeline will also connect to four existing, 8-inch SWID turnouts: one near the corner of Merced Avenue and Magnolia Avenue, and three near the corner of Merced Avenue and Western Avenue. Additionally, a one half mile section of existing, obsolete concrete pipe, that runs along the south side of Merced Avenue, between Magnolia Avenue and Western Avenue, will be capped and abandoned in place.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.52540383945917N119.38575735181387W>



Counties: Kern, CA

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## Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Buena Vista Lake Ornate Shrew <i>Sorex ornatus relictus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1610">https://ecos.fws.gov/ecp/species/1610</a>	Endangered
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6051">https://ecos.fws.gov/ecp/species/6051</a>	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratooides nitratooides</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7247">https://ecos.fws.gov/ecp/species/7247</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf</a>	Endangered

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## Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/625">https://ecos.fws.gov/ecp/species/625</a>	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.





## **Appendix B – Representative Photographs of the Project Site**

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Facing north at location of proposed connection to Semitropic Water Storage District distribution system, at southwest end of project site.



Facing north from south end of new pipeline route along Leonard Avenue.





Facing north from middle of new pipeline route along Leonard Avenue.



Facing east from west end of new pipeline route along Merced Avenue.





Facing east at new pipeline route along Merced Avenue.



Facing east at location of existing Shafter-Wasco Irrigation District turnouts in middle of new pipeline route along Merced Avenue.





Facing east at existing and new pipeline route along Merced Avenue, near existing Shafter-Wasco Irrigation District turnout west of Magnolia Avenue.



Facing east at proposed connection to Shafter-Wasco Irrigation District lateral at east end of existing and new pipeline route along Merced Avenue, at intersection with Magnolia Avenue.

## **Appendix B. Cultural Resources Technical Report**

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**The Cultural Resources Technical Report for the Shafter-Wasco Irrigation District Leonard Avenue Conveyance Improvement Project contains information regarding sensitive archeological and/or tribal cultural resources and is available to qualified individuals upon request.**