

**Initial Study and
Proposed Mitigated Negative Declaration
for
Shafter-Wasco Irrigation District and Semitropic Water Storage
District Diltz Intertie Mainline Piping Project and Shafter-Wasco
Irrigation District Diltz Intertie Lateral Piping Project**

Lead Agency: Shafter-Wasco Irrigation District

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Chapter 1. Introduction

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 SWID and Semitropic Water Storage District (SWSD) Diltz Intertie Mainline Piping Project and SWID Diltz Intertie Lateral Piping Project (both projects are analyzed and are subsequently referred to as the 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
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
 - Wildfire

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

- Aesthetics
- Greenhouse Gas Emissions
 - Hazards and Hazardous Materials

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

Chapter 2. Background and Project 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% of the service area) (Figure 1). Conjunctive water use is practiced by SWID and its neighboring districts in this region including SWSD. The SWSD service area covers 221,400 acres. During wet years, when SWID and SWSD are unable to immediately use the entirety of their allocated Central Valley Project (CVP) water supply, the Districts may make use of out-of-district groundwater recharge facilities to store this water. Note: The out-of-district SWSD Pond Poso and SWID Kimberlina Spreading Grounds operate under existing CEQA coverage and are not analyzed as part of this proposed project.¹ During drought periods, SWID growers operate groundwater wells to meet irrigation demand.

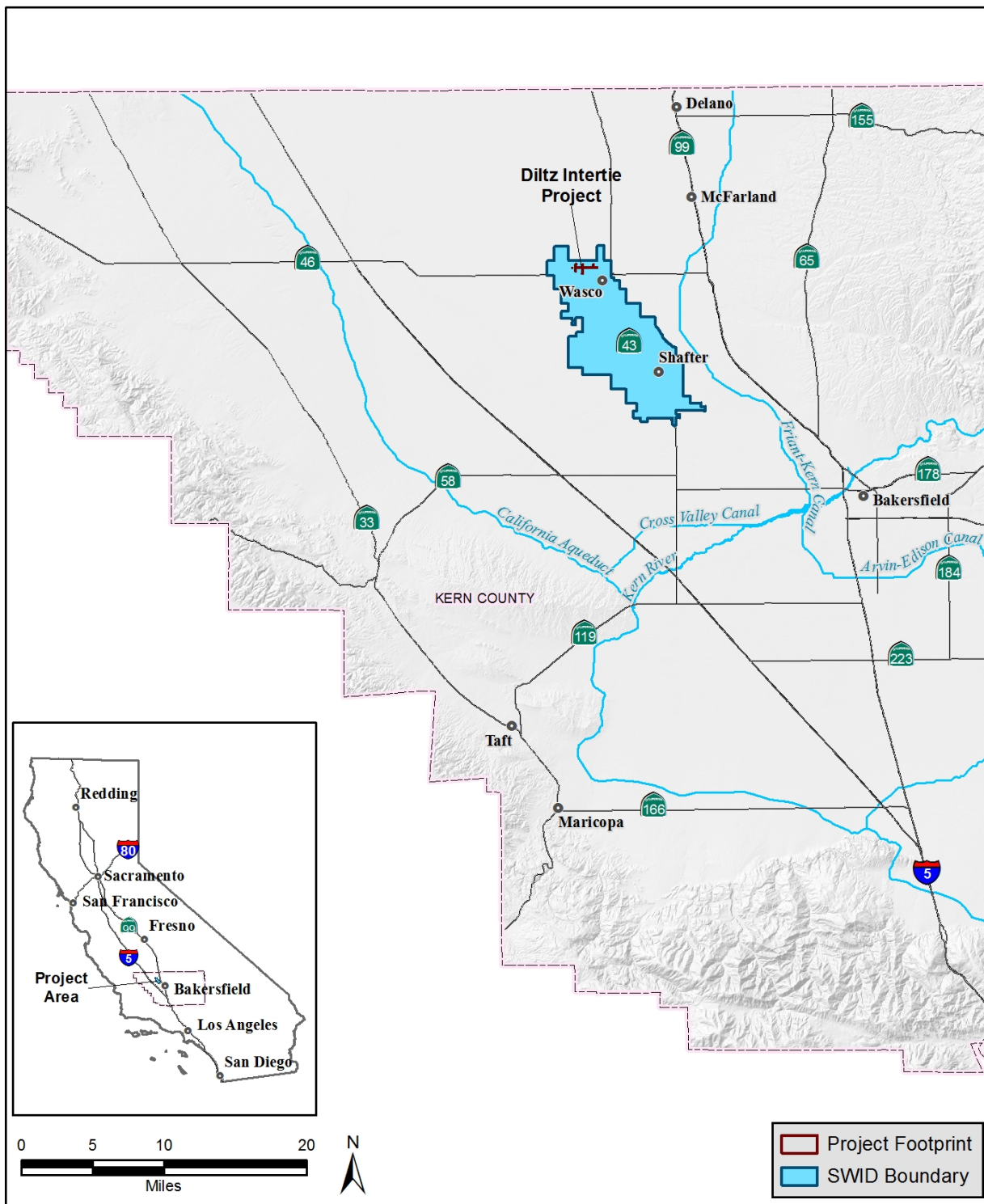
In recognition of the value of conserving groundwater, SWID has set a goal to achieve a measurable reduction of its current applied surface water and groundwater pumping; however, in order to facilitate more efficient water use, and reduce groundwater pumping within the northern portion of SWID during 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 due to the inadequate capacity and pressure rating of the existing pipes, which were built in the 1950s. Thus, two projects have been developed and funded, to more efficiently move water between the Districts. The projects under these two funding opportunities are referred to collectively as the "proposed project" in this IS.

Two Bureau of Reclamation (Reclamation) funded projects are analyzed together within this CEQA document. The proposed project is being led by SWID in cooperation with SWSD, and includes:

- *SWID and SWSD Diltz Intertie Mainline Piping Project*: replaces the use of the existing mainline pipe within SWID's boundary with a higher-capacity, bi-directional pipeline that would connect to the existing Diltz Intertie pipeline previously constructed by SWSD. This improvement will allow for the efficient conveyance of surface water supplies between the two districts. Improvements to SWID's portion of the mainline that connects to the existing intertie are necessary to operate the system at a higher capacity. The existing mainline pipe would then be capped and abandoned in place. This portion of the proposed project is funded under Reclamation Agreement #BOR-MP-17-F001.
- *SWID Diltz Intertie Lateral Piping Project*: replaces the use of existing laterals with higher pressure-rated pipe to ensure there are no failures during pressurized pipe operations and provide more efficient operations. The existing laterals would then be capped and abandoned in place. This portion of the proposed project is funded under Reclamation Agreement #BOR-MP-18-0003.

¹ The Pond Poso Spreading Grounds Initial Study/Negative Declaration was adopted by SWSD in 2007 and the SWID Recharge Project (which includes the Kimberlina Spreading Grounds) Initial Study/Mitigated Negative Declaration/Addendum was adopted by SWID in 2015.

The proposed project is anticipated to facilitate efficient delivery of an additional 3,432 acre-feet (AF) per year in surface supply conveyed from the Central Valley Project, the Friant-Kern Canal, and non-Bay-Delta sources including Kern River floodwater. The 3,432 AF of water was calculated using pipe capacity and duration-of-supply conversions during 4 out of 10 wet years. The additional water conveyed may be used to recharge the regional groundwater basin. Improving the mainline pipe provides both Districts flexibility to take additional, available surface water supply when it is available, and convey it for groundwater recharge. The water would work directly to offset SWSD's reliance on Bay-Delta and groundwater supplies. Additionally, replacement of aging laterals is expected to decrease groundwater pumping in SWID by providing growers with more reliable pressurized surface water deliveries from the mainline pipe. and may contribute to recovery of regional groundwater levels.



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Figure 1: Project Location Map

2.1 Project Description

The proposed project involves the installation of a new, mainline 7,930 linear feet (LF), 36-inch bi-directional PVC pipe within the Kern County and City of Wasco right-of-way (ROW) on the north side of Gromer Avenue (**Figure 2** and **Appendix A**). This new mainline pipe is the same total length as and will replace the use of the existing reinforced concrete pipe constructed in the 1950's. The new mainline pipe will be installed in a trench offset 5 feet from the old mainline pipe except for the section between Western Avenue and Central Avenue, where the new pipe will be placed on the opposite side of the road from the existing alignment. The entire length of the old mainline pipe will then be capped and abandoned in place. The existing mainline pipe currently runs along the south side of Gromer Avenue, from Western Avenue to Central Avenue, and then makes a slight turn to run along the north side of Gromer Avenue from Central Avenue to North Palm Avenue where it connects to an existing pipeline that is not part of the proposed project analyzed in this document. The current system is operationally constrained when the intertie is moving water from SWSD into SWID (west to east) because the low-head-class pipeline within SWID must be pressurized. The replacement of the pipeline will remove this operational constraint, allowing for water to be moved west to east (uphill) without a disruption in service, and is expected to increase capacity from the current 8 to 30 cfs when operating.

Additionally, the use of several existing laterals branching off the mainline pipe would be replaced to facilitate continued irrigation of surrounding agricultural land that is currently in cultivation within SWID. The new laterals will be installed in a trench offset 4-5 feet from the old lateral pipes. The old laterals will then be capped and abandoned in place. Five separate laterals will connect to the Diltz Intertie mainline pipe. The total length of laterals is 7,239 LF and is the same length as the existing lateral pipes. Of the 7,239 LF total length, 6,597 LF will be 15-inch pipe and 642 LF will be 18-inch pipe. The replacement laterals will replace existing lower pressure-rated laterals which are currently inoperable when running water west to east (under current operations, when pumping is required it increases the pressure in the laterals above the current pressure rating). The new laterals will have a pressure rating of 125 psi which exceeds the expected pressures obtained during transfer of water in the Diltz Intertie in either direction.

Construction activities for the proposed project include excavation of soils to install all buried pipe. The new 36-inch main pipeline would be buried within the Gorman Avenue public ROW on the north side of the road. The 15- and 18-inch laterals branching off the main line would be offset 4-5 feet from the existing lateral pipelines. The existing mainline pipe and existing laterals, that are also located in the county road ROW, would be disconnected from the system and abandoned in place. Construction activities would not require the removal of any row or orchard crops.

Trench depths would be 5 feet for pipes 15 to 18 inches in diameter (laterals) and 6 feet for pipes up to 36 inches in diameter (main line). Trench widths would be 3 feet for pipe sizes 15 to 18 inches (laterals) and up to 10.5 feet for 36-inch pipes (main line). All trenches will be backfilled with excavated material ensuring all pipelines receive 4-feet of cover and a very small amount of spoils may need to be disposed of offsite at an approved facility. A 10-foot-wide permanent easement will allow for maintenance of the main pipeline and laterals by SWID (**Figure 2**).

2.2 Hours of Construction

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

2.3 Construction Schedule

The proposed project would be completed between August 2019 and January 2020. However, actual construction activities will only require 2 months to construct the pipelines, within the longer timeframe.

2.4 Construction Equipment

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

2.5 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 mainline pipe and laterals would not exceed a total of 50 feet wide, and all equipment staging and excavation would be contained within the construction corridor along the County road ROW. All trenches will use excavated material for backfilling around the new main line and laterals. 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.

2.6 Site Restoration

As mentioned previously, all trenches will be backfilled and the ground over the new main line and laterals will be restored to its existing grade (example site conditions shown in **Photos 1 and 2**).

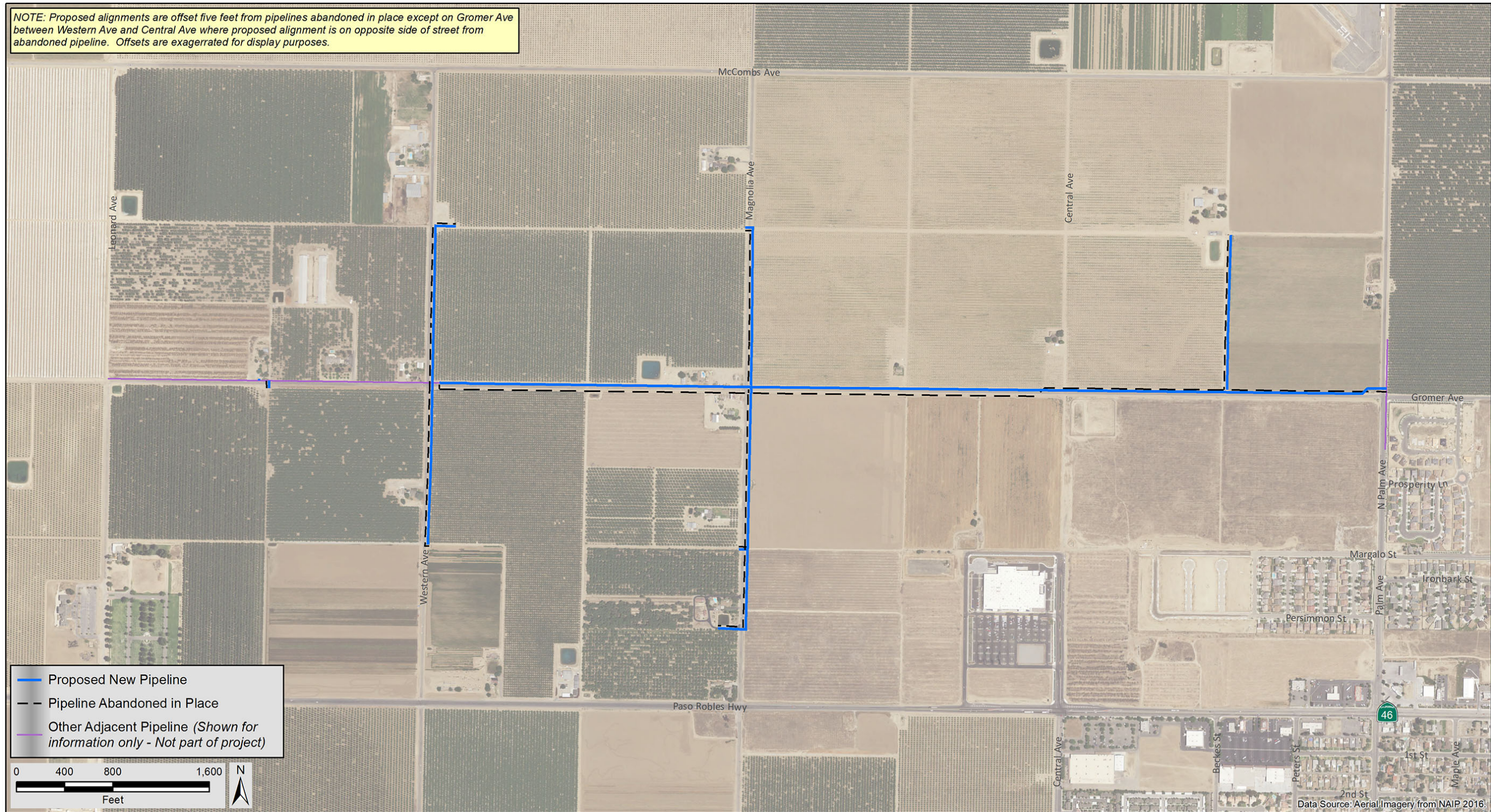


Figure 2: Project Overview



Photo 1: Gromer Avenue Right-of-Way.



Photo 2: Western Avenue Right-of-Way.

Chapter 3. Environmental Checklist

Project Information

1. Project title:	Shafter-Wasco Irrigation District and Semitropic Water Storage District Diltz Intertie and Shafter-Wasco Irrigation District Diltz Intertie Lateral Piping Projects
2. Lead agency/Project Sponsor	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 Shafter-Wasco Irrigation District (SWID), approximately 1 mile northwest of Wasco, Kern County, California (Figure 1).
6. General plan designation:	Intensive agriculture (min. 20-acre parcel size)
7. Zoning:	A (Exclusive Agriculture), AH (Exclusive Agriculture Airport Approach Height Combining)
8. Description of project:	See Section 2.1
9. Surrounding land uses and setting: Briefly describe the project's surroundings:	The surrounding land use is almost exclusively active agricultural land with scattered rural residences. The City of Wasco is located to the southeast of the proposed project site.
10. Other public agencies whose approval is required (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 (PRC) Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? <u>Note:</u> Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.	GEI Consultants, Inc (GEI) archaeologist, Karen Gardner, contacted the Native American Heritage Commission (NAHC) on October 8, 2018, to request a search of the Sacred Lands Database and a California Environmental Quality Act consultation list. The NAHC responded on October 11, 2018, saying that the Sacred Lands File search was negative, and provided a list of 14 contacts for consultation, representing 10 tribes. This information was forwarded to Lex Palmer at BOR on October 29, 2018. The BOR will coordinate all tribal consultation for the proposed project.

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 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 checked="" type="checkbox"/> Utilities/Service Systems	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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


Signature

4/29/19
Date

Dana S. Munn
Print Name

General Manager
Title

Shafter - Wasco Irrigation District
Agency

3.1 Aesthetics

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
I. AESTHETICS.					
Except as provided in PRC Section 21099, would the project:					
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 (Photo 3). There are no scenic vistas or state scenic highways in the proposed project vicinity. The proposed project involves buried water conveyance facilities that would connect the SWSD and SWID systems for increased efficiency. 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.

The proposed project would not create any new sources of light.

Construction activities would extend over 2 months and only occur during daylight hours. During construction, there would be a small number of construction vehicles at the site; however, this would not be substantially different than agricultural equipment normally used in the area. Construction and operation of the proposed project would not appear substantially different than current operations in the area. Therefore, the proposed project would have a less than significant impact to visual resources.



Photo 1: 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
II. AGRICULTURE AND FORESTRY RESOURCES. 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. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 main pipeline and laterals will be buried within the county road ROW along roads, 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 (California Department of Conservation [DOC] 2019a). However, agricultural land and crops adjacent to the pipeline alignment would not be disturbed during construction or operation of the proposed project. There would be no impact to agriculture.

3.3 Air Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
III. AIR QUALITY. 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. Would the project:					
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 Kern County portion of the SJVAPCD is in nonattainment for state air quality standards limiting ozone, Particulate Matter (PM)10 microns or less and PM2.5 microns or less (SJVAPCD 2019a). Construction for the proposed project would extend over 2 months and utilize typical construction vehicles including a front-wheel loader, excavator, water trucks, a backhoe, 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 2017b), 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 two water trucks and implement a Dust Control Plan for compliance with the SJVAPCD Regulation VIII, Fugitive PM10 Prohibitions (2012) during construction to contain fugitive dust. Particulate matter would be maintained to insignificant levels.

With the implementation of the Dust Control Plan, 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. There are no sensitive receptors in the proposed project vicinity. Due to the linear nature of pipeline construction and the small relative trench sizes, any emissions would occur over a short duration (only a few days) at each site and would not adversely affect a substantial number of people. Therefore, impacts would be less than significant.

The operation phase of the proposed project would rely on pressure maintained within the system to provide water to the mainline and laterals 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 adverse impacts 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
IV. BIOLOGICAL RESOURCES.					
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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 B**. A field survey of the pipeline route was conducted by GEI biologist, Anne King on May 14, 2018. No native vegetation assemblages are present on the project site; all lands are actively cultivated or were cultivated in the past and now dominated by nonnative ruderal vegetation. The project site is primarily bordered by almond orchards and grain crop fields. The road shoulders are compacted and generally barren. Nonnative species, including Russian thistle (*Kali tragus*), black mustard (*Brassica nigra*), lambs quarters (*Chenopodium album*), and oat (*Avena* sp.), occur along some field margins and in uncultivated fields in the eastern portion of the project site. Ornamental trees and shrubs occur at several residences adjacent to the pipeline

route. **Appendix B** includes photographs of the project site that were taken during the May 2018 field survey.

- a) The California Department of Fish and Wildlife (CDFW) 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 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 34 plants and animals. Only six special-status species have been documented within 5 miles of the project site, and several of the CNDDDB occurrences are considered extirpated, because suitable habitat is no longer present at the location. Most of the remaining occurrences are from the 1970s and 1980s; the few more recent occurrences are from remnant areas of grassland, saltbush scrub, and other natural habitats.

Special-status plants. Based on review of existing documentation and evaluations made during field surveys, habitat for special-status plants is absent from the project site, and none of the 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. Five special-status bird species have low potential to occur on or adjacent to the project site: burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and tricolored blackbird (*Agelaius ticolor*). No suitable nesting habitat for tricolored blackbird or northern harrier is currently present on or adjacent to the project site. However, if grain crops or extensive areas of tall ruderal vegetation (e.g., in fallow fields) are present during project activities, there is some potential for these species to nest in such habitat. Large ornamental trees at several rural residences and agricultural facilities on or near the project site provide marginally suitable nest sites for Swainson's hawk and white-tailed kite. 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 Kern 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 low, but it cannot entirely be ruled out. Similarly, few potential nest sites for white-tailed kite are present, and potential for kites to nest on or near the project site is low. Potentially suitable habitat for burrowing owl is currently limited to margins of grain fields and fallow fields adjacent to the eastern portion of the project site. During the May 2018 field survey, a large ground squirrel (*Otospermophilus beecheyi*) colony was observed in the fallow field south of Gromer Avenue and west of North Palm Avenue; this area has the highest potential to support burrowing owls.

Because most of the project site is subject to regular disturbance from agricultural activities, and project activities are anticipated to cause somewhat similar disturbance levels, potential for project implementation to result in nest failure or burrow abandonment is low. However, if occupied burrows are present along the pipeline corridor, they could be directly destroyed, and burrowing owls could be injured or killed. In addition, if active nests are present along or very close to the pipeline corridor, project construction could result nest abandonment, reduced care of eggs or young, or premature fledging. Depending on the species and number of individuals that are affected, burrow destruction or nest failure could have a substantial adverse effect on the local population. Therefore, this impact would be potentially significant. Implementation of Mitigation Measures BIO-1a and BIO-1b would reduce this impact to less than significant (*see* Mitigation Measures, Chapter 5).

Special-status Bats. Western mastiff bat (*Eumops perotis californicus*) is the only special-status bat that has been documented in the project vicinity. CNDDDB occurrences of western mastiff bat in the southern San Joaquin Valley are generally from the valley floor margins, adjacent to hills that likely provide suitable natural roost sites. Because the nearest known occurrences are approximately 15 miles from the project site, there is no suitable natural roosting habitat within at least 10 miles, and the project vicinity provides poor artificial roost sites, these bats are very unlikely to roost adjacent to the project site. If individuals forage over the project site, foraging activities are unlikely to be disturbed by construction activities. Therefore, this impact would be less than significant.

San Joaquin Kit Fox. The CNDDDB includes several San Joaquin kit fox occurrences in the general project region, most of which were from areas of natural habitat to the west and south and from along Poso Creek. None of the CNDDDB occurrences within 10 miles of the project site are from the past 25 years, and most are much older. Some of the occurrences include observations of active dens, but all of these are from areas of saltbush scrub habitat, and the most recent documented dens are from 1989 (CDFW 2018). Although kit foxes occur in a variety of habitats, including row crops and orchards, they prefer natural open habitats with loose-textured soils, and dens typically occur in open areas with grass or scattered brush (USFWS 1998, 2010). According to habitat suitability modeling conducted over the range of San Joaquin kit fox, no medium or high suitability habitat is present on the project site, and no extensive areas of such habitat are present within at least 5 miles (Cypher et al. 2013).

California ground squirrels and their burrows were observed in the fallow agricultural fields and along dirt roads south of Gromer Avenue at the east end of the project site during the May 2018 field survey. This was the only portion of the project site that appeared to support medium-sized mammals whose burrows could potentially be expanded and used by San Joaquin kit fox. No potential kit fox dens were observed during the field survey. Based on the predominance of orchards on the project site and very limited extent of fallow agricultural fields and presences of adjacent residential neighborhoods at the eastern end of the project site, potential for kit fox to occur on or near the project site is very low, and kit fox dens are extremely unlikely to be present. However, because the project site is between two satellite population areas identified by USFWS, there is potential for foraging or transient individuals to occasionally pass through the site. If such

individuals are present on or adjacent to the site, project activities could disturb and displace kit foxes, and there is potential for individuals to be injured or killed if they are struck by a project vehicle or project equipment or become trapped in pipes or trenches. In the very unlikely event an occupied den is present on or adjacent to the project site, project-related disturbance could result in den abandonment, and a kit fox could be injured, killed, or become entombed in a den that is directly impacted. Disturbance of an occupied den or injury or death of a San Joaquin kit fox could have a substantial adverse effect on the local kit fox population. Therefore, this impact would be potentially significant. Implementation of Mitigation Measure BIO-2 would reduce this impact to less than significant (*see* Mitigation Measures, Chapter 5).

- 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 fields on 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 2004 Kern County General Plan (Plan) (Kern County 2004), which is currently being updated, includes several policies and implementation measures designed to protect and conserve threatened and endangered species and oak trees. No oak trees are present on the project site, and the project has no potential to conflict with Plan's oak retention policy. The Plan requires discretionary projects to consider effects to biological resources and wildlife agency comments during the CEQA process; this is consistent with the CEQA process being implemented by SWID for the proposed project. Therefore, implementing the proposed project would have no impact related to potential conflict with any local policies or ordinances protecting biological resources.
- 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 (Kern County 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
V. CULTURAL RESOURCES.					
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations (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 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).

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*. The population of the Southern Valley was estimated at 6,900 before European

contact (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).

The proposed project area is located on the northwest border of the city of Wasco on land historically owned by the Kern County Land Company (Congdon 1898). The City of Wasco was originally settled in the late 19th century and incorporated in 1945 (City of Wasco 2018). Agriculture is its primary industry (U.S. Census 2018).

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. For example, SWID was created in September 1937 by farmers from the communities of Shafter and Wasco (SWID 2018). 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 (**Appendix C**), 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 at local repositories, an archaeological survey of the project area, and a desktop geoarchaeological study.

GEI conducted a records search at the SSJVIC on April 23, 2018, for the Diltz Intertie project area. The records search area included the project area plus a 1/2-mile buffer zone, and all records falling into the Diltz Intertie Project area were reviewed. 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. The records search included the following sources:

- National Register of Historic Properties (NRHP)-listed properties (National Park Service [NPS] 1996) and updates
- California Inventory of Historic Resources (California Department of Parks and Recreation [DPR] 1976 and updates)
- California Points of Historical Interest (DPR 1992 and updates)
- California Department of Transportation (Caltrans) Bridge Inventory (Caltrans 1989, 2000, and 2004)
- Historic Maps
- California Historical Landmarks (Office of Historic Preservation [OHP] 1996 and updates)
- Directory of Properties in the Historic Resources Inventory (OHP 2006)
- California Place Names (Gudde 1969)
- *Historic Spots in California* (Hoover and Abeloe 1966; Hoover and Kyle 1990)

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 June 21, 2018, and was conducted by GEI archaeologists Karen Gardner, M.A., and Jesse Martinez, M.A., both Registered Professional Archaeologists. The survey was conducted to intensive standards (pedestrian transects spaced no more than 50 feet/15 meters apart). A Trimble 7 Series Global Positioning System (GPS) unit capable of sub-meter accuracy was carried to record the location of any identified resources. Aerial maps were used in the field to ensure adequate inspection of all portions of the survey area.

A desktop study for geoarchaeological potential (e.g., sensitivity for buried cultural resources) was carried out prior to field work and relied primarily on available geologic, soils, and topographic mapping for the project area. Preliminary geologic mapping was available at the 1:250,000 scale (Smith 1964). Online Natural Resources Conservation Service (NRCS) soils data for this project area were gathered because they are very useful for gaining an understanding of archaeological potential at the landscape scale. The NRCS data include descriptions of soil morphology, as well as information about parent material origin,

lithology, and landform associations (NRCS 2009). The utility of the NRCS soil mapping data in the study area is augmented by Meyer et al. (2010), who provide radiocarbon age estimates for soil orders across seven counties, including those occurring in the project area in Kern County. Taking radiocarbon age as a baseline, the researchers also took other factors into account such as proximity to water and landform slope, with areas nearer to springs and smaller streams as well as landforms with slopes of nine degrees or less being weighed heaviest, to develop an estimation of buried site potential by soil type.

Although all project-related ground disturbance will occur in previously disturbed soils, GEI conducted a desktop study for the proposed project. This included reviewing the above resources, historic aerials, and historic maps to determine the sensitivity for buried archaeological resources by soil type for the project area (Congdon 1898; Fairchild Aerial Surveys 1946; Google Earth 2019; Nationwide Environmental Title Research 2019; USGS 1930a, 1930b).

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. One cultural resource, an underground pipe system, was identified and evaluated for the California Register of Historical Resources (CRHR). The resource was found to be ineligible for CRHR listing and is therefore not considered a historical resource for the purposes of CEQA. Analysis of existing soils and geologic mapping of the project area indicates the area is composed of Latest Holocene basin deposits. While these native soils and sediments are of appropriate age to contain cultural resources, 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
VI. ENERGY.					
Would the project:					
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 mainline and laterals 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 to the pressurized mainline and laterals. Since the proposed project would not have 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.

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
VII. GEOLOGY AND SOILS.					
Would the project:					
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 type="checkbox"/>	<input checked="" 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 9 miles from the project site (DOC 2019b).
- 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 (County of Kern 2019a). Operation of the proposed project would not substantially increase topsoil loss or create a potential for soil erosion as the project consists of buried pipelines. The ground overlying the pipelines will be graded to the adjacent ground surface level and operation will not involve activities that will increase or influence surface runoff that may cause erosion.

- 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.
- d) Soils in the proposed project area are comprised of Wasco Sandy Loam. Soils are deep, well-drained, low or completely lacking in clay content, and typically used for agriculture (USDA 2019). The main line and laterals would be buried within this soil type which is not considered expansive and do not create a risk to life or property.
- e) The proposed project will not involve construction or use of septic tank or alternative wastewater systems.
- 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, this impact would be less than significant after mitigation measures are implemented.

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
VIII. GREENHOUSE GAS EMISSIONS.					
Would the project:					
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 EPA's mandatory reporting threshold for large sources of greenhouse gas emissions (GHGs) is 25,000 metric tons of CO₂ emitted annually. This threshold is approximately the amount of CO₂ generated by 5,281 passenger vehicles per year (EPA 2019). Construction for the proposed project would take 2 months and utilize typical construction vehicles that include three employee pickup trucks, one front wheel loader, one excavator, two water trucks, and one backhoe. 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 GHG 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
IX. HAZARDS AND HAZARDOUS MATERIALS.					
Would the project:					
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, Wasco High School, is located 1.5 miles from the project site and is not at risk from hazardous materials or emissions resulting from the proposed project. There would be no impact.
- d) The only hazardous sites located in the vicinity of the proposed project are near the intersection of Gromer Avenue and Western Avenue are two previously remediated Underground Storage Tank sites (Sun World Ranch 75 ID# T0602900786, and Coleman Ranch ID# T0602900400) (California State Water Resources Control Board 2019). Clean-up of these sites is complete and there are no other hazardous material sites that would be affected by construction or operation of the proposed project.
- e) The nearest airport, Wasco-Kern County Airport, is located approximately ½ mile from the project site and the eastern end of the project alignment is located within the Comprehensive Land Use Plan (County of Kern 2012). However, the project would have no impact on airport operations and since the airport is a small, regional facility serving the general aviation community it would not result in exposure of site workers to excessive noise levels.
- 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 (County of Kern 2019b).
- 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 (California Department of Forestry and Fire Protection [CalFire] 2007). 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
X. HYDROLOGY AND WATER QUALITY.					
Would the project:					
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 type="checkbox"/>	<input checked="" 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 checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a)** The proposed project would convey the same supply and quality of water to agricultural users as is currently conveyed in the existing mainline and laterals. 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 (County of Kern 2019a).

- b)** The proposed project relies on continued conveyance of surface water supplies within buried pipelines and will not use groundwater as a supply nor interfered with groundwater recharge as a result of project construction or operation.
- 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 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 is not located within a flood hazard one as designated by Federal Emergency Management Agency (FEMA) or within an area that would be affected by tsunami or seiche (FEMA 2019; DOC 2019b). 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 (SRWQCB 2018) and within the 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.

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
XI. LAND USE AND PLANNING.					
Would the project:					
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 associated rural housing in an area zoned for agriculture and will serve existing farmland. 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.

3.12 Mineral Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XII. MINERAL RESOURCES.					
Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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-Wasco Oil Field is nearby to the south of the project site, the proposed project does not directly overlie the field and the project is not located in or near any areas of known mineral resources and implementation of the proposed project would not result in the loss or prelude the recovery of a locally important mineral resource (DOC 2019a). 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
XIII. NOISE.					
Would the project:					
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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. There would be no impact.
- c)** The nearest airport, Wasco-Kern County Airport, is located approximately 1/2 mile from the project site. However, the project would have no impact on airport operations and since the airport is a small, regional facility serving the general aviation community it would not result in exposure of site workers to excessive noise levels.

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
XIV. POPULATION AND HOUSING.					
Would the project:					
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 result in no 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 2-month period and workers will travel to the construction site from nearby existing cities and towns. Thus, the construction and the operation 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
XV. PUBLIC SERVICES.					
Would the project:					
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. The characteristics of the main line and laterals to be replaced pose no increase in fire risk. In addition, the construction phase will be a short, 2-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.

3.16 Recreation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XVI. RECREATION.					
Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<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.

3.17 Transportation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XVII. TRANSPORTATION.					
Would the project:					
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 type="checkbox"/>	<input checked="" 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 required 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 2-month construction period. The proposed project consists of buried pipelines and will also be constructed entirely within the county road ROW and not within the roadway of Gromer Avenue or any adjacent roads and therefore, no 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
XVIII. TRIBAL CULTURAL RESOURCES.					
Would the project 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:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources <i>as defined in</i> 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).

3.18.1.1 Methods and Findings

On October 8, 2018, a request was sent to the NAHC requesting a list of Native American contacts for the proposed project area and requesting a search of the NAHC's Sacred Lands File. 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 (**Appendix B**). 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 California Public Resources Code (PRC) 21080.3.1.

- 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
XIX. UTILITIES AND SERVICE SYSTEMS.					
Would the project:					
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 type="checkbox"/>	<input checked="" 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 existing facilities adjacent to pipelines that have become obsolete and unusable due to inadequate pressure within the system. 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 on-farm water management 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 will not support additional development beyond existing agricultural uses.
- c)** There are no wastewater facilities associate with the proposed project. There would be no impact.

- d-e)** Since the main line and laterals will be buried adjacent to 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. 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
XX. WILDFIRE.					
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
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 is not located within a state responsibility area or very high fire hazard severity zone (CalFire 2007). 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
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.					
Would the project:					
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 2 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 5. Mitigation Measures

In order to reduce potential impacts to a less than significant level, the following mitigation measures will be implemented:

Air Quality

AQ-1: Develop Dust Control Plan. SWID (or their designated contractor) will develop a Dust Control Plan to submit to the SJVAPCD 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.

Biological Resources

BIO-1a: Conduct Focused Surveys for Burrowing Owls and Avoid Loss of Occupied Burrows. To minimize potential effects of project construction on burrowing owl, SWID will ensure that the following measures are implemented, consistent with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).

- A qualified biologist will assess burrowing owl habitat suitability in the area subject to direct impact and adjacent areas within 500 feet.
- If suitable habitat or sign of burrowing owl presence is observed, a take avoidance survey will be conducted within 14 days before project activities begin.
- If any occupied burrows are observed, protective buffers will be established and implemented. A qualified biologist will monitor the occupied burrows during project activities to confirm effectiveness of the buffers. The size of the buffer will depend on type and intensity of project disturbance, presence of visual buffers, and other variables that could affect susceptibility of the owls to disturbance.
- If it is not feasible to implement a buffer of adequate size and it is determined, in consultation with CDFW, that passive exclusion of owls from the project site is an appropriate means of minimizing impacts, an exclusion and relocation plan will be developed and implemented in coordination with CDFW. However, passive exclusion cannot be conducted during the breeding season (February 1–August 31), unless a qualified biologist verifies through noninvasive means that either (1) the birds have not begun egg laying or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival.

BIO-1b: Conduct Focused Surveys for Nesting Swainson's Hawk, other Special-status Birds and Implement Buffers Around Active Nests. To minimize potential effects of project construction on nesting Swainson's hawk and other special-status birds, SWID will ensure that the following measures are implemented:

- A qualified biologist will conduct surveys of potential Swainson's hawk nesting trees within 0.25 mile of the project site. To the extent practicable, depending on timing of project initiation, surveys will be conducted in accordance with the *Recommended Timing and Methodology for*

Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). At a minimum, a survey will be conducted within 14 days before project activities begin near suitable nest trees during the nesting season (April–August).

- A qualified biologist will conduct surveys of suitable nesting habitat for tricolored blackbird, white-tailed kite, and northern harrier, if present within 500 feet of project activities. Surveys will be conducted within 14 days before project activities begin near suitable nesting habitat during the nesting season (February–August).
- If any active nests are observed, protective buffers will be established and implemented until the nests are no longer active. A qualified biologist will monitor the nest during project activities to confirm effectiveness of the buffer. The size of the buffer will depend on type and intensity of project disturbance, presence of visual buffers, and other variables that could affect susceptibility of the nest to disturbance.

BIO-2: Avoid and Minimize 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.
- A qualified biologist will conduct a pre-construction San Joaquin kit fox survey of the project site and adjacent 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.
- Project activities will only occur during the day (between 30 minutes before sunrise and 30 minutes after sunset).
- 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.

- To reduce potential for predation of San Joaquin kit fox by scavengers, all food-related trash items such as wrappers, cans, bottles or food scraps generated during project activities will be disposed of in closed containers and removed daily from the project site. No deliberate feeding of wildlife will be allowed.
- To prevent harassment or mortality of San Joaquin kit fox, no domestic pets associated with project personnel will be permitted on the project site.
- Hazardous materials, fuels, lubricants, and solvents that spill accidentally during project-related activities will be cleaned up and removed from the project site as soon as possible, according to applicable federal, state, and local regulations.
- SWID will designate a project representative as the contact for any employee or contractor who finds a dead, injured, or entrapped San Joaquin kit fox. If a San Joaquin kit fox is found dead, injured, or entrapped on the project site, the SWID contact will be notified immediately and will immediately relay the report to USFWS.
- All sightings of San Joaquin kit fox will be reported immediately to USFWS, and a record of the sightings will be submitted to the CNDDB.

Cultural Resources

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, SAFCA 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.

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. SAFCA agrees to comply with other related state laws, including PRC Section 5097.9.

Geology and Soils

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.

Tribal Cultural Resources

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 California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 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.

Chapter 6. List of Preparers

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Appendix A. Project Detail Mapbook

Appendix B. Biological Resources Technical Report

Appendix C. Cultural Resources Technical Report
