Initial Study/Proposed Mitigated Negative Declaration

Shafter-Wasco Irrigation District Pipeline Improvements for Bell Recharge Project

Prepared for:

SWID
Shafter-Wasco Irrigation District

Prepared by:

GEI Consultants

November 2020

Initial Study/Proposed Mitigated Negative Declaration

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November 2020

Project No. 2001502

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PROPOSED MITIGATED NEGATIVE DECLARATION

Project: Shafter-Wasco Irrigation District Pipeline Improvements for Bell Recharge Project

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

PROJECT LOCATION

The proposed project area is located within SWID, approximately 1 miles north of Shafter, Kern County, California.

PROJECT DESCRIPTION

The proposed project would involve the installation of a new, 1-mile-long, Class 125, 21-inch bi-directional PVC pipe within the Kern County road right-of-way (ROW) along Merced Avenue and Mannel Avenue. The new bi-directional pipeline would connect the north and south systems and facilitate water movement through the District. The new pipeline would begin within the District's easement at the intersection of Merced Avenue and Beech Avenue. The pipeline would run approximately one-half mile to the west, along the south side of Merced Avenue, turn north at the intersection of Merced Avenue and Mannel Avenue, then run one-half mile north along the east side of Mannel Avenue, to connect with SWID's north system.

Along Merced Avenue, the new pipeline would be installed adjacent to existing 12-inch Lateral 137.2-2.0N-1.0W, which runs for approximately one-quarter mile along the south side of Merced Avenue. Lateral 137.2-2.0N-1.0W wouldremain in service and would not be affected by project activities. Along Mannel Avenue, the new pipeline would replace an existing 15-inch pipeline (portion of Lateral 134.4-1.7S-1.5E), that is part of the District's north system. The new pipeline would be installed adjacent to the existing 15-inch lateral which would be abandoned in place with all openings plugged with concrete. The north end of the new pipeline would terminate at a connection to an existing 18-inch section of Lateral 134.4-1.7S-1.5E east of Mannel Avenue and north of existing turnout (1.7-1.5-8) on the west side of Mannel Avenue. The pipeline would also connect to three existing turnouts west of Mannel Avenue (1.7-1.5-8, 1.7-1.5-10, and 1.7-1.5-12) and another existing 15-inch pipe section of Lateral 134.4-1.7S-1.5E, west of Mannel Avenue. Since turnout connections would require crossing of Mannel Avenue, the road would be trenched and repaved after pipe installation and pressure testing.

The proposed project would also increase the capacity of an existing pump station on Beech Avenue, approximately one-half mile south of the new pipeline. The increase in capacity (from 3 cfs to 10 cfs) would be achieved by replacing the existing split-case pumps, motors, and transformers with new, higher-capacity, higher-efficiency pumps, motors, and transformers.

The District would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW. When parallel and cross runs to the existing utilities are encountered, the new pipeline would be modified to meet the minimum

horizontal and vertical separations requirements per Kern County Standards and local governing agencies. All work and equipment staging would take place within an up to 40-foot wide construction corridor.

Construction activities for the proposed project include excavation of soils to install all buried pipe. All trenches would be backfilled with excavated material ensuring all pipelines receive a minimum of 4 feet of cover. For areas where turnout connections require trenching across Mannel Avenue, the final grade and surface would be restored per Kern County road standards. A very small amount of excavation spoils may need to be disposed of offsite at an approved facility. Maintenance of the proposed pipeline would be conducted under SWID's existing easement within the County

FINDINGS

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

1. The proposed project would have no impacts on agriculture and forestry resources, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.

2. The proposed project would have less-than-significant impacts on aesthetics, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities and service systems.

3. The proposed project would have potentially significant impacts on air quality, biological resources, cultural resources, tribal cultural resources, and geology and soils, but mitigation measures are proposed to avoid or reduce these effects to less-than-significant levels.

4. The proposed project would not have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

5. The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

6. The proposed project would not have possible environmental effects that are individually limited but cumulatively considerable and contribute to a significant cumulative impact. "Cumulatively considerable" means that the incremental effects of an individual project

are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

7. The environmental effects of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.

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

Mitigation Measure AQ-1: Develop Dust Control Plan.

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

Timing:	Before construction activities
Responsibility:	SWID or construction contractor(s)

Mitigation Measure 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 burrowing owl 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.

Timing: Before and during project construction activities
Responsibility: SWID and construction contractor(s)

Mitigation Measure BIO-1b: Conduct Focused Surveys for Nesting Swainson's Hawk and 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.

Timing: Before and during project construction activities
Responsibility: SWID and construction contractor(s)

Mitigation Measure BIO-2: Conduct Focused Surveys and Implement Measures to Minimize Potential for Impacts 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:

- 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.

- No less than 14 and no more than 30 days before project activities begin, a qualified biologist will conduct a pre-construction survey to determine the potential for San Joaquin kit fox to occur in the action area. If potential or known dens for San Joaquin kit fox are found, exclusion zones will be established and maintained, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011).
- If project activity would occur within 50 feet of a potential den (i.e., a den that is not known to be occupied), monitoring will be conducted at the potential den for 4 consecutive days. If no San Joaquin kit fox activity is documented, project activities can proceed. If San Joaquin kit fox activity is documented, the appropriate exclusion zone will be established and maintained, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011). If it is infeasible to implement the prescribed exclusion zone, USFWS will be consulted and alternative measures will be implemented to ensure impacts are adequately minimized.
- All excavated, steep-walled trenches more than 2 feet deep will be covered with plywood or similar materials at the end of each workday. 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, for the presence of San Joaquin kit fox, 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 trapped or injured San Joaquin kit fox is discovered, project activities in the immediate vicinity will stop, and escape ramps or structures will be installed immediately to allow the animal to escape. If a San Joaquin kit fox is unable to escape voluntarily, a qualified biologist will be summoned, and the biologist will notify USFWS to determine what actions should be taken to adequately minimize potential impacts.
- All construction pipes 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 determine what actions should be taken to adequately minimize potential impacts.
- 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, and no domestic pets associated with project personnel will be permitted on the project site.

Timing: Before and during project construction activities
Responsibility: SWID and construction contractor(s)

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

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

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

Timing: During construction activities
Responsibility: SWID and construction contractor(s)

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

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

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

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

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

  Timing: During construction activities
  Responsibility: SWID and construction contractor(s)

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

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

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

Timing: Before and during construction activities
Responsibility: SWID and construction contractor(s)

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

SWID shall implement the following measures:

- Culturally affiliated Tribes will be further consulted concerning Tribal Cultural Resources that may be impacted if these types of resources are discovered during construction. Further consultation with culturally affiliated Tribes will focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. Should a Tribal Cultural Resource be identified in the project area during construction, the following performance standards shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of a Tribal Cultural Resource:
- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with consulting Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing on the CRHR, SWID will avoid damaging effects to the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible.

Timing: During construction activities
Responsibility: SWID and construction contractor(s)

INITIAL STUDY

PROJECT INFORMATION

1. Project title:	Shafter-Wasco Irrigation District Pipeline Improvements for Bell Recharge Project
2. Lead agency name and address:	Shafter-Wasco Irrigation District P.O. Box 1168 Wasco, CA 93280
3. Contact person and phone number:	Dana Munn, General Manager, 661-758-5153
4. Project location:	The proposed project area is located within SWID, approximately 1 mile north of Shafter, Kern County, California (Figure 1).
6. General plan designation:	Intensive Agriculture (min. 20-acre parcel size)
7. Zoning:	A (Exclusive Agriculture)
8. Description of project:	*See* Section 2.2
9. Surrounding land uses and setting:	The surrounding land use is almost exclusively active agricultural land with scattered rural residences. The City of Shafter is located to the south of the proposed project site.
10. Other public agencies whose approval may be required or requested (e.g., permits, financing approval, or participation agreement):	U.S. Department of the Interior, Bureau of Reclamation financing approval; Central Valley Regional Water Quality Control Board Construction Activities General Permit; San Joaquin Valley Air Pollution Control Board Dust Control Plan
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?	GEI Consultants, Inc (GEI) archaeologist, Jesse Martinez, contacted the Native American Heritage Commission (NAHC) on May 14, 2020, to request a search of the Sacred Lands Database and a California Environmental Quality Act consultation list. The NAHC responded May 18, 2020 and stated the Sacred Lands File search was negative. There are no Tribes that have requested consultation on SWID projects, under AB 52.

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Figures

Appendices

Acronyms and Abbreviations

BMP's	Best Management Practices
BP	before present
CCR	California Code of Regulations
CalFire	California Department of Forestry and Fire Protection
CEQA	California Environmental Quality Act
cfs	cubic feet per second
Caltrans	California Department of Transportation
CalRecycle	California Department of Resources Recycling and Recovery
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Kern County
CO_2	Carbon Dioxide
CRHR	California Register of Historical Resources
CVP	Central Valley Project
DPR	Department of Parks and Recreation
DOC	California Department of Conservation
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
Farmland	Farmland of Statewide Importance
FKC	Friant-Kern Canal
FEMA	Federal Emergency Management Agency
GEI	GEI Consultants
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
IS/MND	Initial Study/Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

NCCP	Natural Community Conservation Plan
PM	Particulate Matter
PRC	Public Resources Code
Proposed Project or Project	Pipeline Improvements for Bell Recharge Project
Reclamation	U.S. Bureau of Reclamation
ROW	right-of-way
SJVAPCD	San Joaquin Valley Air Pollution Control District
SSJVIC	South San Joaquin Valley Information Center
SWID or District	Shafter-Wasco Irrigation District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
Valley	San Joaquin Valley

Chapter 1. Introduction

The Shafter-Wasco Irrigation District (SWID or District) 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 Pipeline Improvements for Bell Recharge Project (proposed project or project) near Wasco, California. SWID is the lead agency under CEQA.

This document includes:

- an IS (Initial Study) to satisfy CEQA requirements and
- a proposed MND to satisfy CEQA requirements

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

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

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

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

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

1.3 Document Organization

This document is divided into five key sections:

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

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

Chapter 3, "Environmental Checklist," presents an analysis of environmental issues identified in the CEQA Environmental Checklist and determines whether project implementation would result in a no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, potentially significant impact, or significant impact, on the physical environment in each issue area. Should any impacts be determined to be potentially significant or significant with mitigation incorporated, an EIR would be required. For the proposed project, however, mitigation measures have been incorporated as needed to reduce all potentially significant and significant impacts to less-than-significant levels.

Chapter 4, "References," lists the references used to prepare this IS.

Chapter 5, "Report Preparers," identifies individuals who helped prepare or review this document.

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Chapter 2. Project Description

2.1 Project Background and Need

The District is in the southern San Joaquin Valley, in Kern County (County), approximately 20 miles northwest of Bakersfield (**Figure 1**). The District's service area includes approximately 39,000 acres, with approximately 32,600 irrigated acres (84% of the service area). A cost-share funding agreement was recently executed between the Bureau of Reclamation (Reclamation) and the District. The proposed project would be funded under Reclamation Agreement #BOR-MP-19-F002.

The District was established as a public entity in 1937 and in 1955 entered into a water contract with Reclamation to supply water for the district from the Friant unit of the Central Valley Project (CVP) via the Friant-Kern Canal (FKC). The District's primary source of surface water is delivered from the CVP through two turnouts on the FKC connected to a north and a south District mainline. The District began importing CVP surface water in 1957 with a water service contract for 50,000 acre-feet of Class I water and 39,600 acre-feet of Class II water. CVP water supplies are highly variable and can range from 10,000 acre-feet in a "dry" year to nearly 80,000 acre- feet in a "wet" year. In addition to CVP allocations, the District supplements deliveries with surface water transfers from neighboring districts or through conjunctive use of the underlying groundwater basin.

The intent of the proposed project is to enhance regional water supply reliability and improve operational efficiency and flexibility within the District. The District's north and south pipeline delivery systems currently operate separately and are comprised of a total of 120 miles of pressurized pipelines. Conjunctive water use is practiced by the District and many growers currently operate groundwater wells to meet irrigation demand when surface supply is unavailable. Construction of a bi-directional connection between the District's north and south systems would facilitate more effective water conveyance within the District and would support continued conjunctive use in the basin.

The proposed project would provide a bi-directional connection between the District's north and south distribution systems, upstream of the turnout to the Bell Recharge Facility (under construction), which is currently served by the north distribution system in the northern portion of the District. By connecting the north and south systems, the District would convey surplus surface water, when available during wet years, to the recharge facility (under construction) for storage as groundwater. The recharged water would be available to growers to withdraw using existing grower wells during dry years, to help meet irrigation demands in dry periods. Additionally, although the north and south systems would be connected under the proposed project, operations would still be constrained by an obsolete pumping plant in the south area, during times when delivery to the Bell Recharge Facility would be occurring simultaneously with existing water deliveries to meet irrigation demands. The obsolete pumping plant was originally constructed in

the 1950s and its capacity has degraded over time to only pump 3 cubic feet per second (cfs). Therefore, the pump would be upgraded to 10 cfs to ensure the District is able to meet existing irrigation demand during times that surplus surface water is simultaneously being delivered to the newly constructed Bell Recharge Facility.

If implemented, the proposed project would help to conserve local groundwater by allowing more conveyance capacity and timing flexibility to deliver available contract and surplus surface water. The improved delivery volume through the north and south distribution systems would be an estimated 1,428 acre-feet per year, during wet years, if the full, upgraded 10-cfs pump capacity is utilized. Surplus water that would be conveyed through the newly connected system, for delivery to the Bell Recharge Facility, would be derived from supplies that may include, but are not limited to, CVP Friant Division Class 2, SWP Article 21 supplies, water transfers, and/or floodwaters, when available. The intent is to recharge available surplus water so the water can later be extracted and used when surface water supplies are not available, and thus conserve local groundwater supplies. Without implementation of the proposed project, the District would continue to be able to convey water for irrigation using the existing, constrained 3-cfs pump capacity; however, conveyance of water between the District's north and south systems, to allow flexible delivery of surface water to groundwater recharge or irrigation, would not be possible.

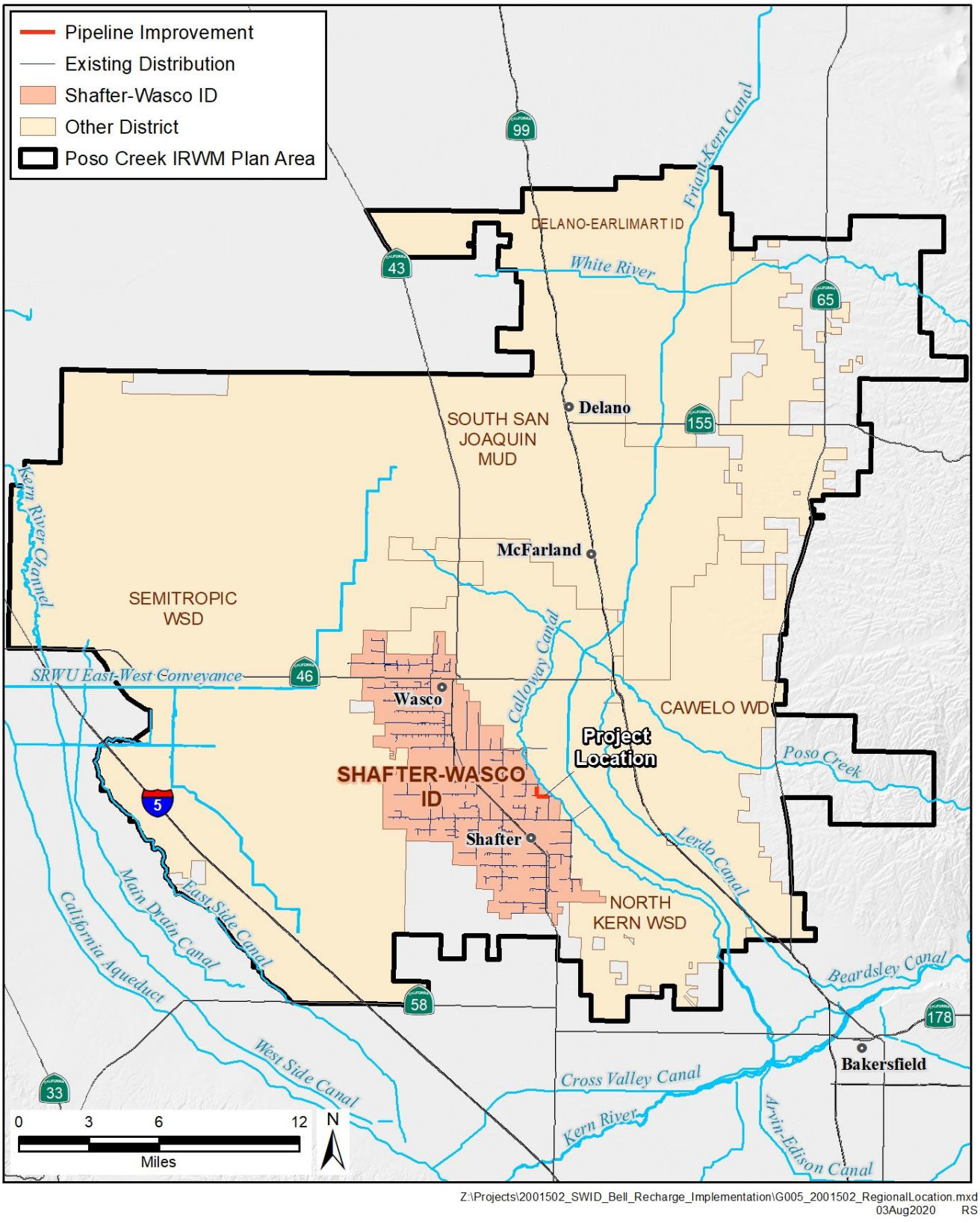

Figure 1: Project Location

2.2 Project Components

The proposed project involves the installation of a new, 1-mile-long, Class 125, 21-inch bi-directional PVC pipe within the Kern County road right-of-way (ROW) along Merced Avenue and Mannel Avenue. The new bi-directional pipeline would connect the north and south systems and facilitate water movement through the District. The new pipeline would begin within the District's easement at the intersection of Merced Avenue and Beech Avenue. The pipeline would run approximately one-half mile to the west, along the south side of Merced Avenue, turn north at the intersection of Merced Avenue and Mannel Avenue, then run one-half mile north along the east side of Mannel Avenue, to connect with SWID's north system.

Along Merced Avenue, the new pipeline would be installed adjacent to existing 12-inch Lateral 137.2-2.0N-1.0W, which runs for approximately one-quarter mile along the south side of Merced Avenue. Lateral 137.2-2.0N-1.0W would remain in service and would not be affected by project activities. Along Mannel Avenue, the new pipeline would replace an existing 15-inch pipeline (portion of Lateral 134.4-1.7S-1.5E), that is part of the District's north system. The new pipeline would be installed adjacent to the existing 15-inch lateral which would be abandoned in place with all openings plugged with concrete. The north end of the new pipeline would terminate at a connection to an existing 18-inch section of Lateral 134.4-1.7S-1.5E east of Mannel Avenue and north of existing turnout (1.7-1.5-8) on the west side of Mannel Avenue. The pipeline would also connect to three existing turnouts west of Mannel Avenue (1.7-1.5-8, 1.7-1.5-10, and 1.7-1.5-12) and another existing 15-inch pipe section of Lateral 134.4-1.7S-1.5E, west of Mannel Avenue. Since turnout connections would require crossing of Mannel Avenue, the road would be trenched and repaved after pipe installation and pressure testing.

The District also owns the Bell Recharge Facility (under construction). Under the proposed project, during the shoulder months of wet years (January-March and October-December), the new pipeline would convey water from the District's south area to the north area, ultimately allowing delivery of surface water to the District's Bell Recharge Facility for groundwater recharge. During dry years, water previously recharged through the Bell Recharge Facility, could be pumped from landowner wells near the recharge facilities and conveyed from north to south, via the new pipeline, to turnouts along the District's north and south systems, and as far as the pump station, to utilize previously stored groundwater to meet irrigation demands from April through September.

Additionally, the proposed project would also increase the capacity of an existing pump station on Beech Avenue, approximately one-half mile south of the new pipeline. The increase in capacity (from 3 cfs to 10 cfs) would be achieved by replacing the existing split-case pumps, motors, and transformers with new, higher-capacity, higher-efficiency pumps, motors, and transformers.

The District would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW. When parallel and cross runs to the existing utilities are encountered, the new pipeline shall be modified to meet the minimum horizontal and vertical separations requirements per Kern County Standards and local governing agencies. The new pipeline would be installed in a trench. Trench width would vary depending on

pipe size (36 inches for turnouts and 45 inches for the mainline). Trench depths for the proposed project would be as follows: for 21-inch pipe, 4,800 feet of pipe would be placed 7 feet deep and 200 feet of pipe would be placed 11 to 12 feet deep; all 12-inch pipe would be placed 6 feet deep on lands previously disturbed during road construction. Trench depths varies based on the need to avoid existing utility connections. All work and equipment staging would take place within an up to 40-foot wide construction corridor (**Figure 2 and Figure 3**). The total project area, including construction limits, is to be determined during final design but is expected to be approximately 5.5 acres. Areas surrounding the project site consist of agricultural lands currently in production for orchard and row crops. Construction activities are not expected to require the removal of any row or orchard crops.

Construction activities for the proposed project include excavation of soils to install all buried pipe. All trenches would be backfilled with excavated material ensuring all pipelines receive a minimum of 4 feet of cover. For areas where turnout connections require trenching across Mannel Avenue, the final grade and surface would be restored per Kern County road standards. A very small amount of excavation spoils may need to be disposed of offsite at an approved facility. Maintenance of the proposed pipeline would be conducted under SWID's existing easement within the County road ROW or under an encroachment permit, that SWID would obtain from the County.

2.3 Construction Schedule

The proposed project would be completed between November 2020 and November 2021; however, dependent on funding, the project could start as early as autumn 2020 and finish during the early winter of 2021. However, actual construction activities would require approximately 25 days within a 4-month period to construct the pipeline, within the overall construction period. Normal site activities would proceed between 7 AM and 5 PM, Monday through Friday, with no work on weekends or holidays. Equipment maintenance activities would be performed during normal working hours.

2.4 Construction Equipment and Personnel

Construction vehicles would consist of a front wheel loader, an excavator, water truck, backhoe, a forklift, and three pickup trucks. Additionally, one dump truck may be needed to dispose of excess soil or construction demolition waste. Approximately 10 workers may be onsite during project construction.

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 for the new pipe would not exceed a total of 40 feet wide, and all equipment staging, and excavation would be contained within the construction corridor along the Kern County road ROW. All trenches would use excavated material for backfilling around the new

pipeline. No fill would be transported to the site. A very small amount of spoils may need to be disposed of offsite at an approved facility.

Since turnout connections would require crossing of Mannel Avenue, the road would be trenched and repaved after pipe installation and pressure testing. Access along this segment of Mannel Avenue would be affected for up to 8 non-consecutive days during construction (approximately 2 days per turnout). for pipe installation and repaving. During turnout connection construction, one-way traffic control with a flagger would be used along the affected portion of Mannel Avenue.

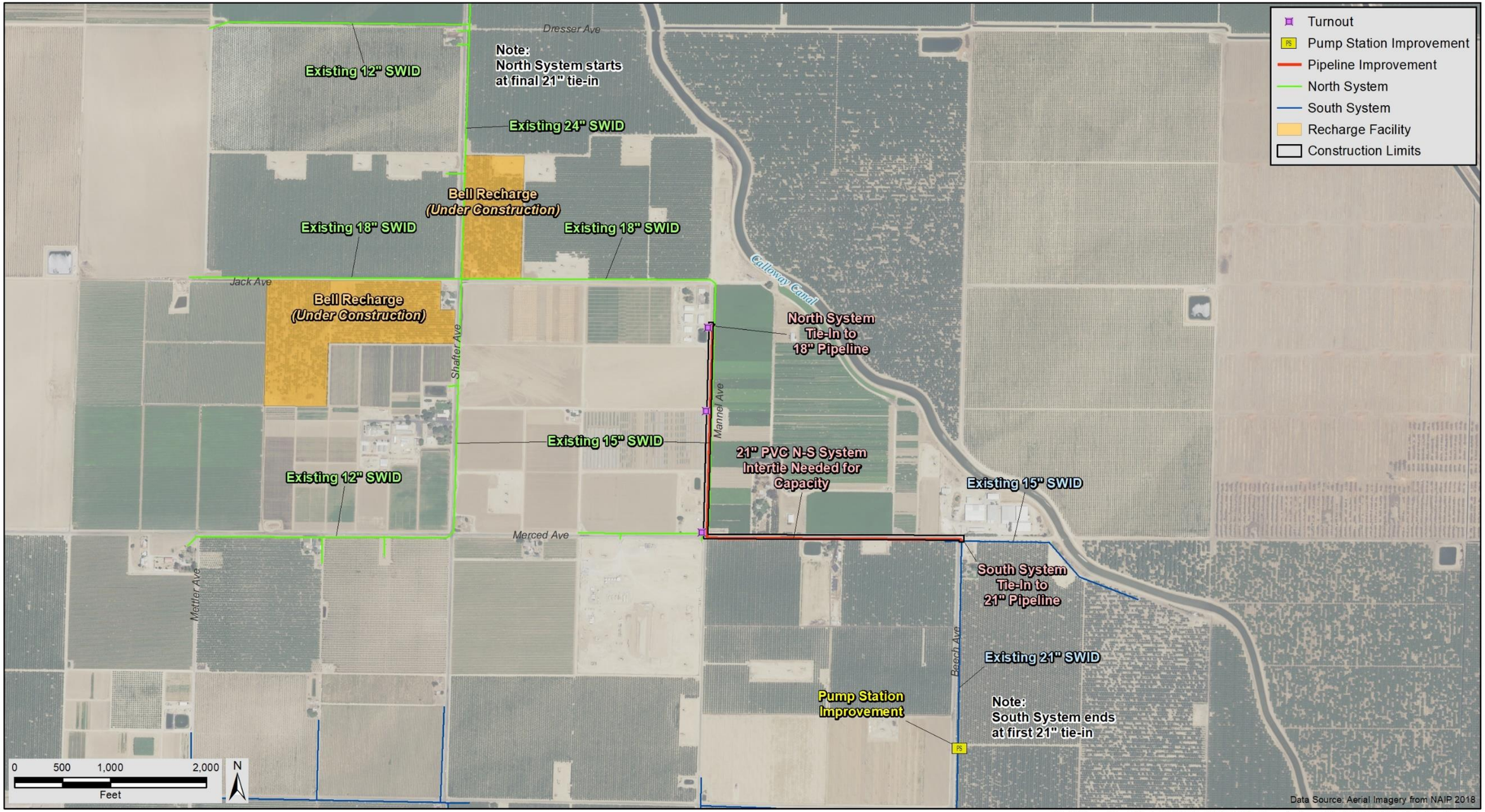

Figure 1: Project Components in Relation to SWID Distribution System

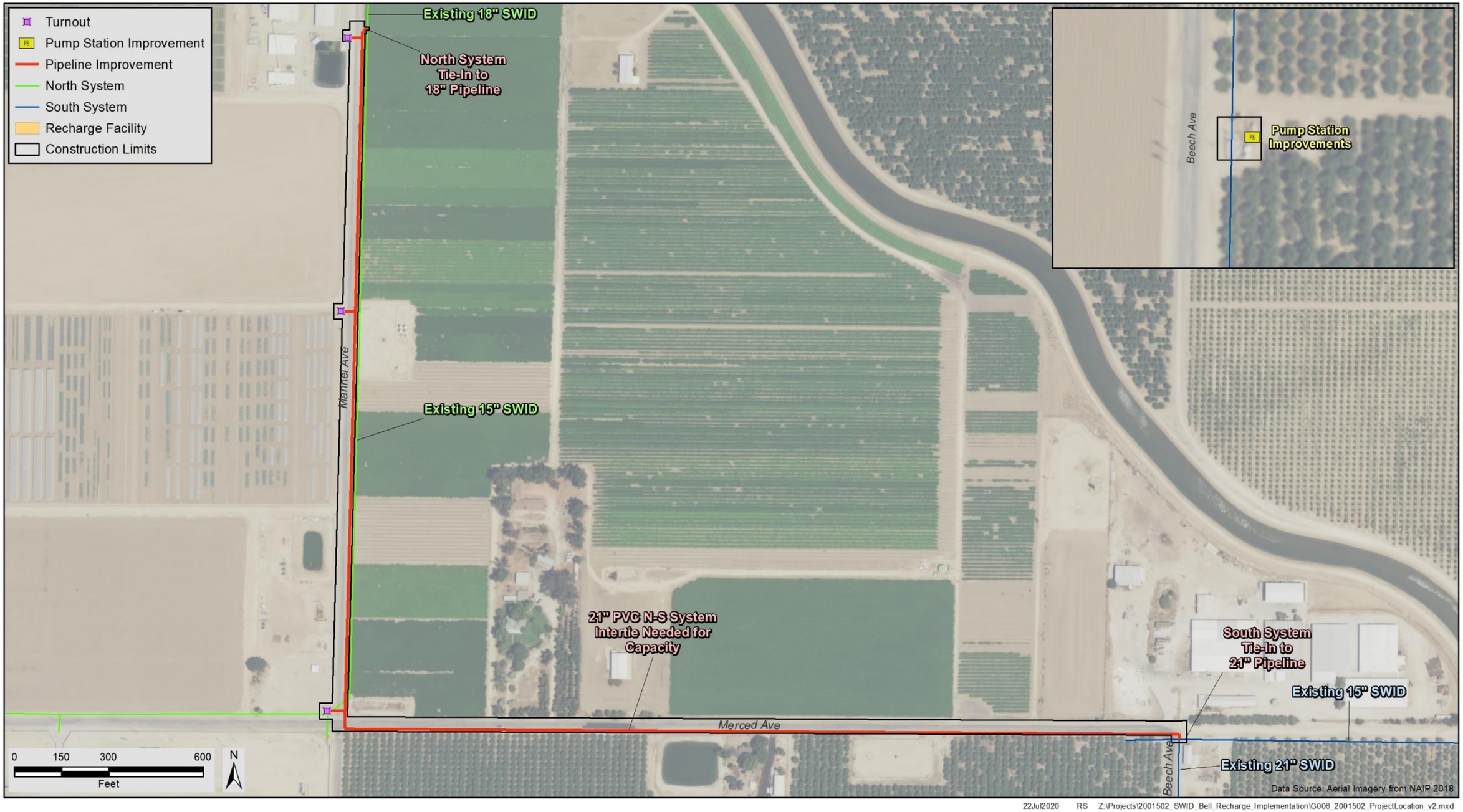

Figure 3: Project Alignment

Chapter 3. Environmental Checklist

Environmental Factors Potentially Affected

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

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

Determination

On the basis of this initial evaluation:

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

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

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

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

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

11 - 13 - 2020

Dana Munn
General Manager
Shafter-Wasco Irrigation District

Date

Evaluation of Environmental Impacts

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Operations and maintenance impacts of the proposed project are routine, minimal, and essentially the same as current operations and maintenance of the existing facilities. There is no potential for significant impacts to any resource category from project operations and maintenance of the existing and proposed facilities.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Less-than-significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.

5) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

8) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less-than-significant.

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

3.1 Aesthetics

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
I. AESTHETICS.				
Except as provided in PRC Section 21099, **would the project:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) 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?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

a-d) The proposed project area is flat; comprised of paved roads, various orchard and row crops, and scattered residences and commercial buildings. There are no scenic vistas or state scenic highways in the proposed project vicinity (Caltrans 2017 and 2020). There would be **no impact.**

The proposed project involves buried water conveyance pipelines that would connect to existing turnouts to facilitate water delivery to the north and south portions of the existing SWID water conveyance system and provide a bi-directional connection to the Bell Recharge Facility (under construction). The project would also include improvements to an existing pump station. Other than temporary disturbance along the county road ROW during pipeline construction, there would be no permanent change to the existing visual character of the project site since the pipeline would be buried and the land surface restored to the original grade. Construction activities would extend over 4 months and only occur during daylight hours. During construction, a small number of construction vehicles would be present onsite; however, this would not be substantially different than large trucks and agricultural equipment currently used in the area on a regular basis. Therefore, the proposed project's impact on the existing visual character of the area would be **less than significant.**

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

3.2 Agriculture and Forestry Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (*as defined in* PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a-e) The proposed project is located in an agricultural area, with the construction taking place in the County ROW. Agricultural production includes orchards and row crops. Construction activities are not expected to require the removal of any row or orchard crops. The new pipeline would be buried within the county road ROW, the construction and operation of the proposed project would not conflict with existing zoning of surrounding parcels nor would it affect any Williamson Act contracted lands. The project site location is designated as Prime Farmland; however, construction of the proposed project would not convert Prime Farmland

to non-farmland as the pipeline would be installed within the County ROW and would not disturb agricultural production during construction (Kern County 2009 and DOC 2019). There are no forest lands or timberlands within the project area. The lands surrounding the pipeline alignment are currently classified as Williamson Act contract lands (Kern County 2010), 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**.

3.3 Air Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☒	☐	☐
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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

a, b) The proposed project is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD) and is surrounded by agricultural fields and paved roads. The SJVAPCD is in nonattainment for state air quality standards limiting ozone, Particulate Matter (PM) 10 microns or less and PM 2.5 microns or less (SJVAPCD 2019). Construction for the proposed project would take approximately 25 days extended over 4 months and would utilize typical construction vehicles including a front wheel loader, excavator, water truck, backhoe, pickup trucks, and dump truck. 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. Construction of the project would require approximately 18 truck trips to drop off all required material and equipment to the project sites. An additional 800 truck trips, or 10 trips per day, would be required for workers commuting to the project sites during construction. A total of 818 trips would be required to implement the project. Using project size and type based on the Small Project Analysis Level (SJVAPCD 2012), the proposed project would not exceed the SJVAPCD established significance threshold of 1,673 vehicle trips a day for commercial projects.

Table 3-1. Small Project Analysis Level by Vehicle Trips.

Land Use Category	Project Size
Residential Housing	1,453 trips per day
Commercial	1,673 trips per day
Office	1,628 trips per day
Institutional	1,707 trips per day
Industrial	1,506 trips per day

Source: SJVAPCD 2012

The primary concern for construction of the proposed project is PM emissions from fugitive dust. SWID would implement the following mitigation measure to ensure that SJVAPCD practices would be implemented during project construction, as well as implement all SJVAPCD Regulation VIII fugitive PM_{10} Best Management Plans (BMP). This impact would be **potentially significant.**

Mitigation Measure AQ-1: Develop Dust Control Plan.

SWID (or their designated contractor) will develop a Dust Control Plan to submit to 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.

Timing:	Before construction activities
Responsibility:	SWID or construction contractor(s)

Implementation of Mitigation Measure AQ-1 would reduce the impact of construction-related dust to **less-than-significant with mitigation incorporated**. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Dust Control Plan.

c) The project area is located along paved road and adjacent to actively cultivated agricultural lands a rural residence, and a commercial building. The residence and commercial building are the closest sensitive receptor to the project site and are located immediately adjacent to the proposed alignment. Due to the linear nature of pipeline construction and the small relative trench size, any emissions would occur over a short duration (only a few days) and would not substantially affect air quality as compared to existing conditions along the pipe alignment. This impact would be **less-than-significant.**

During the operation phase, water would be pumped using electrical energy, therefore , the proposed project would have **no impact** to air quality during the operations phase.

d) Human response to odors is subjective, and sensitivity to odor varies from person to person. Typically, odors are considered an annoyance rather than a health hazard. However, a person's response to odor can range from psychological (e.g., irrigation, anger, anxiety) to physiological (e.g., circulatory and respiration reaction, nausea, headaches, etc.). During construction, the project would generate odor from the use of diesel fuels, though this would be short-term and not significant. During operation, the project would consist of the operation of an electrically powered pump at the upgraded pump station. No odors would be generated by this use. Potential odor effects would be **less-than-significant**.

3.4 Biological Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

Information presented in this environmental setting is based on observations made during a field survey conducted on July 8, 2020 and review of biological resource databases and other available information regarding biological resources in the project vicinity.

The project site is comprised of roadways, agricultural land and associated facilities, rural residences, and a small group of commercial buildings. No native vegetation assemblages are present on or adjacent to the project site, and all agricultural lands are actively cultivated or maintained. The road shoulders are compacted and barren, and unplanted fields and lots were barren at the time of the field survey. Orchards dominate the southern portion of the project site, and row crops dominate the northern portion. Ornamental trees and shrubs occur at some agricultural facilities and residences.

3.4.1.1 Sensitive Biological Resources

Sensitive biological resources addressed in this section include those that are afforded consideration or protection under state and federal laws and regulations.

Special-status Species

For purposes of this analysis, special-status species include plants and animals in one or more of the following categories:

- taxa (i.e., taxonomic categories or groups) officially listed by the state or federal government as endangered, threatened, or rare;
- candidates for state or federal listing as endangered or threatened;
- taxa that meet the criteria for listing, even if not currently included on any list, as described in CEQA Guidelines CCR Section 15380;
- species identified by the California Department of Fish and Wildlife (CDFW) as species of special concern;
- species listed as fully protected under the California Fish and Game Code; and
- plants considered by CDFW to be "rare, threatened, or endangered in California."

The California Natural Diversity Database (CNDDB) (CDFW 2020) and online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2020) were reviewed for information on special-status plants and animals that occur in the project vicinity. These reviews were centered on the Wasco U.S. Geologic Survey 7.5-minute quadrangle and included the eight surrounding quadrangles. A list of threatened and endangered species under jurisdiction of the U.S. Fish and Wildlife Service (USFWS) that could occur in the project vicinity was obtained from the Information for Planning and Conservation website (USFWS 2020). Database search results and the USFWS species list is provided in **Appendix A**.

Plants

Fifteen special-status plants included in the CNDDB and/or online Inventory of Rare and Endangered Vascular Plants of California search results were evaluated for their potential to occur on the project site. All of these species are restricted to scrub, grassland, or wetland habitat types. Based on observations made during the field surveys, no special-status plants have potential to occur on or adjacent to the project site, because no suitable habitat for them is present.

Wildlife

Twenty-one special-status wildlife taxa included in the CNDDB search results and/or on the USFWS resource list were evaluated for their potential to occur on or adjacent to the project site. As with the plant species, nearly all of the wildlife species were determined to have no potential to occur on or adjacent to the project site because of restricted distribution and/or lack of suitable

habitat. The few special-status wildlife taxa for which at least potentially suitable habitat occurs on or adjacent to the project site were evaluated in further detail and are discussed below.

Five special-status bird species have low potential to occur on or adjacent to the project site: burrowing owl (*Athene cunicularia*; state Species of Special Concern), Swainson's hawk (*Buteo swainsoni*; state-listed as Threatened), northern harrier (*Circus hudsonius*; state Species of Special Concern), white-tailed kite (*Elanus leucurus*; state Fully Protected), and tricolored blackbird (*Agelaius tricolor*; state-listed as Threatened). No suitable nesting habitat for tricolored blackbird or northern harrier is currently present on or adjacent to the project site. However, if grain crops 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 and near the project site provide marginally suitable nest sites for Swainson's hawk and white-tailed kite. Kern County is at the southern end of the Swainson's hawk breeding range, and the species nests sparsely in this region (CDFG 2007). The CNDDB includes only one known nest site within 10 miles of the project site, and it is from more than 90 years ago (CDFW 2020). 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. 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 of poor quality and is limited to field margins and undeveloped lots. During the field survey, California ground squirrels and their burrows were observed in two small uncultivated areas at the intersection of Merced Avenue and Mannel Avenue; these are the only areas adjacent to the project site that currently support burrows that could potentially be used by burrowing owl.

CNDDB occurrences of western mastiff bat (*Eumops perotis californicus*; California Species of Special Concern) in the southern San Joaquin Valley are generally from the valley floor margins, adjacent to hills that likely provide suitable natural roost sites. Because the nearest known occurrences of this bat 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, individuals have very low potential to occur on or adjacent to the project site.

The CNDDB includes several San Joaquin kit fox (*Vulpes macrotis mutica*; federally listed as Endangered and state-listed as Threatened) occurrences in the general project region, most of which were from areas of natural habitat to the west and from along Poso Creek to the north. All but one of these is from more than 25 years ago, and most are much older. All occurrences that include observations of active dens are from areas of saltbush scrub habitat, and the most recent documented dens are from 1989 (CDFW 2020). The only recent occurrence within 10 miles of the project site was a roadkill individual found in 2006, immediately north of the Bakersfield urban area and approximately 9 miles from the site. 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 10 miles (Cypher et al. 2013); the site is more than 8 miles from the closest area of remnant natural habitat (to the southwest). Therefore, individuals from higher-quality habitat elsewhere are unlikely to venture into the

project vicinity, unless dispersing. Based on the current habitat conditions and observations made during the field survey, 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 kit fox use canals as dispersal corridors (Cypher et al. 2013), individuals could disperse along the nearby Calloway Canal and occasionally venture into agricultural habitat adjacent to the project site.

Sensitive Habitats

No sensitive habitats, including state or federally protected wetlands, critical habitat for federally listed species, or state-designated natural communities of special concern, are present on or adjacent to the project site.

a) Special-status plants. Because no special-status plants were determined to have potential to occur on or adjacent to any portion of the project site, there would be **no impact**.

Special-status birds. Five special-status bird species—burrowing owl, Swainson's hawk, white-tailed kite, northern harrier, and tricolored blackbird—have low potential to be affected by project implementation. The project site and adjacent agricultural crops provide poor-quality habitat for these species. Potential nesting habitat is also poor, but large ornamental trees provide marginally suitable nest sites for tree-nesting raptors, and tricolored blackbird or northern harrier could nest in grain crops, if present during project activities. Burrowing owls could occupy ground squirrel burrows adjacent to the site. Because the project site is subject to regular disturbance from agricultural activities, road traffic, and rural residences, and project disturbance would be similar in intensity to existing agricultural activities, project activities would not disturb potential foraging activities in the project vicinity. 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. This impact would be **potentially significant**. Mitigation Measures BIO-1a and BIO-1b, described below, have been identified to address this impact.

Special-status mammals. Western mastiff bat has low potential to occur on or adjacent to the project site, because no suitable natural roosting habitat occurs within at least 10 miles, and the project vicinity provides very poor artificial roost sites. If individuals forage over the project site, foraging activities would not be disturbed by construction activities; and no potential roost sites would be impacted. Therefore, this impact would be **less than significant**.

The project site also provides poor-quality habitat for San Joaquin kit fox, and potential for this species to occur on or adjacent to the project site is low. However, in the unlikely event an individual strays onto the project site during construction activities, it could become

trapped in pipes or trenches. This impact would be **potentially significant**. Mitigation Measure BIO-2, described below, has been identified to address this impact.

Mitigation Measure 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 burrowing owl 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.

Timing: Before and during project construction activities
Responsibility: SWID and construction contractor(s)

Mitigation Measure BIO-1b: Conduct Focused Surveys for Nesting Swainson's Hawk and 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.

  Timing: Before and during project construction activities
  Responsibility: SWID and construction contractor(s)

  Implementing Mitigation Measure BIO-1a and BIO-1b would reduce the potentially significant impact associated with destruction of occupied burrowing owl burrows or failure of active special-status bird nests to a less-than-significant level, because buffers would be implemented around occupied burrows and active nests or non-breeding burrowing owls would be passively relocated.

Mitigation Measure BIO-2: Conduct Focused Surveys and Implement Measures to Minimize Potential for Impacts 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:

- 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.
- No less than 14 and no more than 30 days before project activities begin, a qualified biologist will conduct a pre-construction survey to determine the potential for San Joaquin kit fox to occur in the action area. If potential or known dens for San Joaquin kit fox are found, exclusion zones will be established and maintained, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011).

- If project activity would occur within 50 feet of a potential den (i.e., a den that is not known to be occupied), monitoring will be conducted at the potential den for 4 consecutive days. If no San Joaquin kit fox activity is documented, project activities can proceed. If San Joaquin kit fox activity is documented, the appropriate exclusion zone will be established and maintained, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011). If it is infeasible to implement the prescribed exclusion zone, USFWS will be

consulted and alternative measures will be implemented to ensure impacts are adequately minimized.

- All excavated, steep-walled trenches more than 2 feet deep will be covered with plywood or similar materials at the end of each workday. 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, for the presence of San Joaquin kit fox, 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 trapped or injured San Joaquin kit fox is discovered, project activities in the immediate vicinity will stop, and escape ramps or structures will be installed immediately to allow the animal to escape. If a San Joaquin kit fox is unable to escape voluntarily, a qualified biologist will be summoned, and the biologist will notify USFWS to determine what actions should be taken to adequately minimize potential impacts.
- All construction pipes 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 determine what actions should be taken to adequately minimize potential impacts.
- 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, and no domestic pets associated with project personnel will be permitted on the project site.

Timing: Before and during project construction activities
Responsibility: SWID and construction contractor(s)

Implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-2 would reduce the impact on special-status species to **less-than-significant with mitigation incorporated**.

b,c) The project site does not support any wetlands or other aquatic habitat, riparian habitat, critical habitat for threatened or endangered species, or sensitive natural community identified in local or regional plans, policies, or regulations. Therefore, there would be **no impact** on these resources.

d) The project site is part of a large regional extent of agricultural lands and does not serve as a corridor or other primary route for wildlife movement. The site also does not serve as a nursery site for any wildlife species. Wildlife likely travel along the nearby Calloway Canal

and may venture into agricultural lands adjacent to the project site. However, other agricultural lands surrounding the project site that would not be disturbed by project implementation provide equally suitable movement opportunities. In addition, the construction corridor is along existing paved roadways with relatively high disturbance levels, and project activities would only occur during the day; most wildlife movement would likely be at night. Therefore, implementing the proposed project would have **no impact** on movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

e) The 2004 Kern County General Plan, which is currently being updated, includes several policies and implementation measures designed to protect and conserve threatened and endangered species and oak trees (County of Kern 2004). No oak trees are present on the project site. The General Plan requires discretionary projects to consider effects to biological resources and wildlife agency comments during the CEQA process; this is consistent with the CEQA review process being implemented by SWID for the project. Therefore, implementing the proposed project would not conflict with any local policies or ordinances protecting biological resources and there would be **no impact**.

f) The project site is within the area proposed to be covered by the Kern County Valley Floor Habitat Conservation Plan (HCP). A draft of the plan was issued many years ago (Kern County Planning Department 2006), but a final plan has not been released. The project site is within an extensive area of "White Zone," which is of lower conservation concern and not identified for acquisition of preserve areas. Therefore, implementing the proposed project would not conflict with any provisions, guidelines, goals, or objectives related to biological resources anticipated to be included in a potential final and adopted version of this plan, and there would be **no impact**.

3.5 Cultural Resources

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

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

The prehistoric chronology for the Sacramento Valley and Delta regions can be extended to the San Joaquin Valley and is known as the Central California Taxonomic System (CCTS). The CCTS divides the regional prehistory into Early, Middle, and Late "horizons" which are defined by artifact types and frequencies. Updated temporal information further divides the CCTS into the Paleo-Indian, (Lower-, Middle-, and Upper-) Archaic, and Emergent periods, each with associated date ranges and diagnostic artifact and burial styles (Fredrickson 1974, 1994).

The *Paleo-Indian Period* (13,550+ to 10,550 cal. BP [calibrated and before present]) during the late Pleistocene and Early Holocene of the southern San Joaquin Valley (Valley) is represented by sparse and ephemeral artifactual evidence. During the Paleo-Indian Period, the people of the 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 40 miles north of the project area (Fredrickson 1994; Rosenthal et al. 2007). The Paleo-Indian Period in Kings County is best represented by the Witt site (CA-KIN-32), which contained hundreds of concave base projectile points and bone that dates to between 10,788 and 17,745 BP (Rosenthal et al. 2007). The *Lower Archaic Period* (10,550-7,500 cal. BP) of the Valley is represented by a similar pattern of temporary camps on lake shores and dispersed isolated artifacts; artifacts which include stemmed projectile points (e.g., Borax Lake, Lake Mojave, Silver Lake, and Pinto styles), chipped stone crescents, and bi-pointed "humpies" that have been discovered north of the project. 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. The "Windmiller

Pattern" become common throughout the Valley during this period, to as far south as Buena Vista Lake, and is identified particularly by burials in which the individual is positioned in an extended position oriented to the west and which have abundant grave goods, such as; quartz crystals, red pigment, *Olivella* and abalone (*Haliotis)*shell beads and pendants, stone pipes, charmstones, leaf-shaped projectile points, bone tools, baked-clay net weights, and ground stone tools (mortars, pestles, millingstones, and manos) (Moratto 1984). The *Upper Archaic period* (2500-850 cal BP) coincided with the Late Holocene and a cooler and wetter climate. This period is represented by signs of increasing cultural diversity and social complexity. The *Upper Archaic Period* is well represented in in the Sacramento Valley and northern San Joaquin Valley, but very few associated sites have been found in the Valley where the project is located (Rosenthal et al. 2007). The cultural diversity and social complexity of the *Upper Archaic* became more pronounced in the *Emergent Period* (850 cal BP to the Historic Era), which is when the bow and arrow first appeared and trade based on clamshell disk beads used a currency developed (Fredrickson 1994; Moratto 1984). The *Emergent Period* is also reflected in the ethnographic information on Native Californians recorded by 19th and 20th century ethnographers.

Ethnographic Context

The project is situated in the ethnographic territory of the Southern Valley Yokuts, specifically the Chuxoxi, who occupied the channels of the Kern River Delta (Wallace 1978). The Wowol, Yawelami, and Hometwali tribes of the Southern Valley Yokuts also lived within the Tulare Lake Basin. Prior to European contact, Cook estimates that around 6,900 people inhabited the Valley (Cook 1955:44). The Southern Valley Yokuts lived in semi-autonomous villages of about 350 people, though tribe composition was not standardized, and some groups were composed of several villages and while others lived in single autonomous villages (Gayton 1948:14-15; Wallace 1978).

Several types of structures were built by the Southern Valley Yokuts. The most basic were single family houses with oval floors and tule mats on a wooden frame; which were arranged in a single row within villages. There were also long, steep-roofed communal houses, including the Wowol which was internally partitioned, that could house up to 10 families. Domestic activities like cooking were done underneath a shaded porch at the front of houses, with fish, waterfowl, shellfish, roots, acorns, and seeds relied on for subsistence (Gayton 1948:11-13; 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 (Hoover 1990).

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 (Hoover 1990).

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

Irrigation

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

By the early 20th century, much of the flow of the Kern River was redirected through canals and ditches and by 1910 all the surface-water supplies in the Valley was diverted, which resulted in the development of ground-water resources. By 1955, nearly one-fourth of the total ground water obtained for irrigation in the U.S. was pumped in the Valley, a trend that continued into the 1960s. With the completion of federal and state projects, including the Delta-Mendota Canal, Friant-Kern Canal, and the California Aqueduct, cheaper water was available to irrigate agricultural crops, allowing the water table to recover (Galloway and Riley 1999:23–24, 27–29).

3.5.2 Methods

The cultural resources investigations carried out for the proposed project included a Sacred Lands Files database search with the Native American Heritage Commission (see chapter 3.18), background research conducted at the South San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System, review of historic maps and ethnographic

documents, archival research, an archaeological survey of the project area, and a desktop geoarchaeological study.

On July 1, 2020, GEI Consultants (GEI) requested a records search of the project area with a surrounding 0.25-mile buffer zone at the SSJVIC (SSJVIC File No.: 20-220). The SSJVIC reviewed the Wasco USGS 7.5-minute series topographic cultural resource base maps at the facility, as well as associated cultural resource study reports, Department of Parks and Recreation (DPR) site records, and California Historic Landmarks documentation for the project area. The SSJVC review indicates that no previously recorded resources are in or within 0.25-mile of the project area, and that no previous cultural resource studies cover the project area.

A desktop geoarchaeological study was conducted by GEI to determine the potential for buried archaeological resources within the project area. The potential for archaeological sites to occur as surface or buried components is inherently linked to the age and evolution of a geological landform. The project area is situated on Wasco sandy loam, which is a soil type dating to the latest Holocene and that is often greater than 5 feet in depth. Based on these characteristics of the Wasco sandy loam, the project area soils on their own have a High potential of containing buried cultural resources; however, the examination of historical maps does not indicate any structures or features on the landscape, nor any historic-era water courses (other than two dry arroyos in the southwest) or water bodies, or other resource "magnets", within the project area. There are also no known ethnographic villages in the immediate vicinity of the project. In addition, most project-related ground disturbance will occur within soils previously disturbed by road construction and the placement of utility lines, and new disturbance will not exceed the thickness of the Holocene deposited Wasco sandy loam. The previous disturbances also make the potential for intact archaeological deposits within the project area highly unlikely – though not impossible.

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 July 17, 2020, and was conducted by GEI senior archaeologist Jesse Martinez, Registered Professional Archaeologist. The survey was conducted to intensive standards (i.e. pedestrian transects spaced no more than 15 meters apart). The project area consists primarily of road prism, paved roads, and dirt roads. Visibility was excellent in all areas, though the surface context of the project area is highly disturbed. Disturbance has occurred through previous road construction and surface levelling for agricultural purposes, along with deeper though more limited disturbance due to power pole placement.

During the pedestrian survey three historic-era (50 years old or older) built environment cultural resources were identified; two associated underground pipelines, a set of three turnouts, and a pump station. No prehistoric or historic-era archaeological resources were identified.

3.5.3 Findings

The records search, archival research, geoarchaeological investigation, and pedestrian survey did not identify any archaeological sites or human remains within the project area. During the pedestrian survey three historic-era (50 years old or older) cultural resources were identified, 2

associated underground pipelines, a set of 3 turnouts, and a pump station. No prehistoric or historic-era archaeological resources were identified. The resources were evaluated for the National Register of Historic Places (NRHP) and were found to be ineligible for NRHP listing. They also do not appear to meet eligibility requirements for the California Register of Historical Resources (CRHR) and are therefore not considered historical resources for the purposes of CEQA.

Geologic mapping of the project area indicates the area is composed of Wasco sandy loams deposited in the Latest Holocene. These native soils and sediments are of the appropriate age to contain cultural resources and thus could have a high potential for buried archeological deposits, however, all project-related ground disturbance in the project area would occur in previously disturbed soils that make the presence of intact archaeological deposits within the project area highly unlikely. In addition, the limited project-related depth of disturbance needed to replace existing subsurface pipelines makes it very unlikely that any potential deeply buried archaeological deposits could be encountered. Taking the presence of previously disturbed of soils in the project area and the limited depth of project-related ground disturbance into account, the overall buried archaeological sensitivity for the project is low to moderate, and sensitivity for intact archaeological resources low.

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 soils of the project area have a 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**.

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. Mitigation Measure CUL-1, described below, has been identified to address this impact.

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

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

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

Timing: During construction activities
Responsibility: SWID and construction contractor(s)

Implementation of Mitigation Measure CUL-1 would reduce this impact to **less than significant**.

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 impact would be **potentially significant**. Mitigation Measure CUL-2, described below, has been identified to address this impact.

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

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

- In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all ground-disturbing work potentially damaging excavation in the area of the burial and a 100-foot radius shall halt and the Kern County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the

coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall designate a Most Likely Descendant for the human remains. After the coroner's findings have been made, an archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeologists and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities of Kern County for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.9.

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

  Timing: During construction activities
  Responsibility: SWID and construction contractor(s)

Implementation of Mitigation Measure CUL-2 would reduce this impact to **less than significant**.

3.6 Energy

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) The construction phase of the proposed project would not involve wasteful, inefficient, or unnecessary consumption of energy resources as the proposed project involves construction of the new pipeline using standard construction equipment common to a project of this type. During operation of the proposed project, the pumping plant would require the use of minimal electricity because the pump station would be upgraded to employ a higher-efficiency pump, motor, and transformer, than what is currently in use at the project site. The pumping plant is currently in operation and energy usage would not substantially increase from current conditions. Since the proposed project would not cause a significant increase in electrical demand compared to current conditions, the proposed project would have no adverse impacts to energy consumption during the operations phase. There would be a **less-than-significant** impact.

b) The proposed project does not conflict with any state or local plans regarding renewable energy or energy efficiency. There would be **no impact**.

3.7 Geology and Soils

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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:	☐	☐	☐	☒
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.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, *as defined in* Table 18-1-B of the Uniform Building Code (1994, as updated),), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

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. Nearby fault lines include an unnamed pre-quaternary fault, located approximately 4 miles west of the project site, and the Poso Creek fault, a quaternary fault of undetermined age, located approximately 9 miles northeast of the project site. The nearest Alquist-Priolo Fault Hazard Zone is approximately 12 miles north of the project site (DOC 2010 and 2020a). There would be **no impact.**

b) Construction activities would involve excavating, filling, and grading of soils onsite, which would expose site soils to possible erosion from wind and surface water runoff. Kern County has adopted standard measures to control erosion and sediment during construction and all projects in the County are required to comply with the County's Grading Code which includes construction standards and BMP's for Erosion and Sediment Control (Kern County 2020). Additionally, SWID is required to prepare a Stormwater Pollution Prevention Plan (SWPPP) to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activities. The SWPPP shall describe the construction activities to be conducted, BMPs that would be implemented to prevent soil erosion and contaminated stormwater discharges into waterways, and inspection and monitoring activities that would be conducted as part of the proposed project. Implementation of the proposed project would not substantially increase topsoil loss or create a potential for soil erosion as the project consists of a buried pipeline. The ground overlying the pipeline would be graded to match surrounding ground surface level and operation would not involve activities that would permanently increase or influence surface runoff that may cause erosion. This impact would be **less than significant.**

c) The proposed project is also not located in a liquefaction or landslide zone (DOC 2020b). The flat topography characteristic of the project vicinity and the small amount of earthmoving (trenching only) involved with project construction precludes the incidence of landslides, subsidence, lateral spreading, and the possibility of collapse caused by construction. There would be **no impact.**

d) Soils align the project alignment are comprised of Wasco sandy loam. Soils are deep, well-drained, and low or completely lacking in clay content (NRCS 2020). The new pipeline would be buried within this soil type which is not considered expansive and do not create a risk to life or property. There would be **no impact**.

e) The proposed project would not involve construction or use of septic tank or alternative wastewater systems. There would be **no impact.**

f) The proposed project lies in Quaternary-period alluvial fan deposits from the Pleistocene-Holocene epochs (DOC 1978 and 2010). In general, most sedimentary rock formations that are of Pleistocene age or older throughout the Central Valley, are paleontologically sensitive. The installation of the buried pipe could impact unknown paleontological resource as the pipe would be installed underground within excavated trenches. This impact could be **potentially significant.**

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

To minimize the potential for destruction of or damage to potentially unique, scientifically important paleontological resources during earthmoving activities

associated with pipeline construction, SWID will implement the measures described below:

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

  Timing: Before and during project construction activities
  Responsibility: SWID and construction contractor(s)

Implementation of Mitigation Measure GEO-1 would reduce the likelihood of destroying a unique resource or paleontological site to a **less-than-significant** level.

3.8 Greenhouse Gas Emissions

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

a-b) The Environmental Protection Agency's (EPA's) mandatory reporting threshold for large sources of greenhouse gas emissions (GHGs) is 25,000 metric tons of carbon dioxide (CO_2) emitted annually. This threshold is approximately the amount of CO_2 generated by 5,281 passenger vehicles per year (EPA 2018). Construction for the proposed project would take approximately 22 days within a 4-month period and would utilize typical construction vehicles that include a front wheel loader, excavator, water truck, backhoe, pickup trucks, and dump truck. Comparatively, emissions from approximately nine 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 would be far below the threshold level of emissions, proposed project greenhouse gas emissions would not represent a substantial change would be **less than significant**.

c) Kern County does not have any local plans, policy's, or regulation adopted to reduce GHG, however, the project would not conflict with 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
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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

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 would be consistent with current agricultural activities in the project area. Therefore, this impact would be **less than significant.**

c) The nearest school, Sequoia Elementary School, is located approximately 1 mile south of the project site and is not at risk from exposure to hazardous materials or emissions resulting from the proposed project. There would be **no impact.**

d) The database search included all data sources included in the Cortese List (enumerated in Public Resource Section [PRC] Section 65962.5). These sources include the GeoTracker database, a groundwater information management system that is maintained by the State Water Resources Control Board (SWRCB); the Hazardous Waste and Substances Site List (i.e., the EnviroStor database), maintained by the California Department of Toxic Substances Control (DTSC); and EPA's Superfund Site database (DTSC 2020a and 2020b, SWRCB 2020a and 2020b, CalEPA 2020, EPA 2020). There are no Cortese-listed or other hazardous waste or materials sites in the project vicinity. There would be **no impact**.

e) The nearest airport, Shafter Airport-Minter Field, is located approximately 4 miles southeast from the project site. The proposed alignment is not located within the boundaries of the Airport Land Use Compatibility Plan (Kern County 2012a). Additionally, the project would have no impact on airport operations and would not result in exposure of site workers to excessive noise levels. There would be **no impact.**

f) Construction of the proposed project would result in short-term work along the county road ROW and would involve reduced access along a portion of Mannel Avenue. Since turnout connections would require crossing of Mannel Avenue, the road would be trenched and repaved after pipe installation and pressure testing. Access along this segment of Mannel Avenue would be affected for approximately 6 non-consecutive days during construction for pipe installation and repaving. During turnout connection construction, one-way traffic control, with a flagger, would be used along the affected portion of Mannel Avenue. None of the roads in the project vicinity are listed as evacuation routes by the Kern County Office of Emergency Services (Kern County 2012b). With the incorporation of one-way traffic control and appropriate signage, this impact would be **less than significant.**

g) The proposed project does not include any activities that would increase the risk of wildland fire risk and is not located within a state responsibility area or very high fire hazard severity zone (CalFire 2007a and 2007b). There would be **no impact** related to wildfire risk.

3.10 Hydrology and Water Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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:	☐	☐	☐	☒
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
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	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

a) The proposed project would convey a similar supply and quality of water to the District as is currently conveyed in the existing pipeline. The proposed project would increase the pumping capacity at the existing pumping plant from 3 cfs to 10 cfs. Implementation of the project would allow the District to store an additional 1,428 acre-feet per year, during wet years. Operation of the proposed project would not result in violation of water quality

standards or waste discharge requirements because water conveyed through the proposed project would be from SWID's existing CVP supplies, and no new sources of water would be developed as part of the project. Additionally, during construction, the site would employ standard measures to control erosion and sediment and to protect water quality during construction as required by the County's Grading Code, which includes construction standards and BMP's for Erosion and Sediment Control (Kern County 2020). The District would also comply with all measures outlined in the NPDES SWPPP. This impact would be **less than significant.**

b) The proposed project relies on continued conveyance of surface water supplies within a buried pipeline and would not use groundwater as a supply nor interfere with regional groundwater recharge as a result of project construction or operation. There would be **no impact.**

c) Stormwater and agricultural runoff in the project vicinity currently collect within existing ditches and canals within agricultural fields and along adjacent roadways. The proposed project would require the trenching and repaving of Mannel Road after pipe installation and pressure testing. The final grade and surface would be restored per Kern County road standards. This drainage pattern would not be altered, and erosion and surface runoff would not be increased beyond existing conditions by construction or operation of the proposed project. No above-ground structures are proposed as part of the project. Thus, there is no possibility that construction or operation of the project would redirect flood flows. There would be **no impact.**

d) The proposed project area is located in Federal Emergency Management Agency (FEMA) Zone X (area of minimal flood hazard [panel 06029C1825F]). Thus, the site is not located within a flood hazard zone as designated by FEMA or within an area that would be affected by tsunami or seiche (FEMA 2019; DOC 2019). There would be **no impact.**

e) The proposed project is located within the jurisdiction of the Central Valley Regional Water Quality Control Board's Water Quality Control Plan for the Tulare Lake Basin [Kern County subbasin 256] (SWRCB 2018) and within the high-priority, critically-overdrafted Kern County groundwater subbasin (5-022), as designated in the Department of Water Resources (DWR) Bulletin 118 (DWR 2016). However, the proposed project would not affect implementation of the water quality control plan because water conveyed through the proposed project would be from SWID's existing CVP surface water allocation, and no new sources of water would be developed as part of the project. The proposed project would also not interfere with implementation of the Groundwater Sustainability Plan for this area, in fact, the proposed project would contribute to groundwater sustainability in the project area by providing a bi-directional connection to the Bell Recharge Facility, where excess surface water could be recharged during wet years. There would be no discharge to surface waters nor any use or affect to groundwater related to construction or operation of the proposed project. There would be **no impact.**

3.11 Land Use and Planning

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XI. LAND USE AND PLANNING.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a-b) The proposed project is located among actively cultivated agricultural lands and scattered rural residences in an area zoned for agriculture and would facilitate efficient water movement through the District (Kern County 2004). The proposed project is consistent with existing zoning. There would be no conflict with existing land use plans and zoning would not change in the proposed project area. There would be **no impact.**

See Section 3.4, "*Biological Resources"* for a discussion of HCP/Natural Community Conservation Plan (NCCP) in the project area.

3.12 Mineral Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a-b) The District is located in an area evaluated for Aggregate Materials in the Bakersfield Production-Consumption Region. however, the project is not located in or near any areas of known Mineral Resource Zones, as designated by the state (DOC 1988, 2009). Implementation of the proposed project would not result in the loss of or prelude the recovery of a locally important mineral resource. 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
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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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

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

c) The nearest airport, Shafter Airport-Minter Field, is located approximately 4 miles southeast of the project site. The proposed alignment is not located within the boundaries of the Airport Land Use Compatibility Plan (Kern County 2012). Additionally, the project would have no impact on airport operations and would not result in exposure of site workers to excessive noise levels. There would be **no impact.**

3.14 Population and Housing

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a-b) The proposed project would not facilitate or result in new population growth in the area and thus would not require additional housing, roads or other development-related infrastructure. In addition, the proposed project would result in no new long-term sources of employment for the area that may necessitate growth. The proposed project would increase the pumping capacity at the existing pumping plant, improve the conveyance of water within the District, and increase flexibility within the District. The amount of additional water able to be pumped from the existing pumping plant would not be enough to support additional growth. Additionally, water within the District is used only for agricultural uses. The construction of the proposed project would be completed over a 4-month period and workers would travel to the construction site from nearby existing cities and towns. Thus, project construction and operation would not result in additional population growth nor would 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
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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a) The proposed project is located in an undeveloped area approximately 1-mile north of the City of Shafter. The project is surrounded by active agricultural lands and scattered rural residences. The characteristics of the new pipeline pose no increase in fire risk, since the pipe would be buried. Additionally, since no new structures or land uses would result from project implementation or operation, there would be no need for modifications to police protection, or requirements for additional schools or park facilities. The construction phase would be a short, 4-month period and nighttime construction would not occur. The operation phase would require no additional employees to maintain and operate as the pipeline and upgraded pump station would be maintained as part of SWID's ongoing maintenance of District facilities. Therefore, the proposed project would not affect existing nor require additional public services. There would be **no impact.**

3.16 Recreation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

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

3.17 Transportation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

a-d) The project would not conflict with any existing transportation program plan, ordinance, or policies. There would be **no impact.**

The proposed project would be constructed in a rural area along lightly travelled roads and would not result in new places of employment. Construction traffic would use existing public roads to deliver equipment, supplies, and workers to the construction sites. Since turnout connections would require crossing of Mannel Avenue, the road would be trenched and repaved after pipe installation and pressure testing. Access along this segment of Mannel Avenue would be affected for approximately 6 non-consecutive days during construction for pipe installation and repaving. During turnout connection construction, one-way traffic control, with a flagger, would be used along the affected portion of Mannel Avenue. Construction of the proposed project would employ 10 workers during the 4-month construction period and would require approximately 818 transportation trips. The proposed project includes a buried pipeline, which would be constructed entirely within the county road ROW and would not permanently disturb the roadbed or operations of any adjacent roads. Therefore, the project would result in **less than significant** impacts to transportation reliability or emergency access 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
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 CRHR, or in a local register of historical resources *as defined in* PRC Section 5020.1(k), or	☐	☒	☐	☐
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.	☐	☒	☐	☐

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.

3.18.1 Environmental Setting

The project is situated in the ethnographic territory of the Southern Valley Yokuts, specifically the Chuxoxi, who occupied the channels of the Kern River Delta (Wallace 1978). The Wowol, Yawelami, and Hometwali tribes of the Southern Valley Yokuts also lived within the Tulare Lake Basin. Prior to European contact, Cook estimates that around 6,900 people inhabited the Valley (Cook 1955:44). The Southern Valley Yokuts lived in semi-autonomous villages of about 350

people, though tribe composition was not standardized, and some groups were composed of several villages and while others lived in single autonomous villages (Gayton 1948:14-15; Wallace 1978).

Several types of structures were built by the Southern Valley Yokuts. The most basic were single family houses with oval floors and tule mats on a wooden frame; which were arranged in a single row within villages. There were also long, steep-roofed communal houses, including the Wowol which was internally partitioned, that could house up to 10 families. Domestic activities like cooking were done underneath a shaded porch at the front of houses, with fish, waterfowl, shellfish, roots, acorns, and seeds relied on for subsistence (Gayton 1948:11-13; Wallace 1978).

3.18.2 Methods

On May 14, 2020, a request was sent to the Native American Heritage Commission (NAHC) requesting a search of the NAHC's Sacred Lands File. On May 18, 2020, the NAHC responded to the request and indicated that there are no known Sacred Sites listed in their Sacred Lands File for the proposed project area.

SWID has received no notification from culturally affiliated Tribes in their service area regarding consultation with California Native American Tribes (AB 52), and no Tribes have previously requested consultation with SWID for any projects within any of the Tribes' areas of cultural affiliation. Therefore there is no one to send consultation letters regarding the project, and there has been no further consultation under PRC 21080.3.

3.18.3 Findings

Based the negative results of the Sacred Lands File database search, the lack of previously identified Tribal Cultural Resources in the project area, the absences of information from Tribes provided through consultation on resources important to the Tribes, 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.

3.18.4 Discussion

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. Mitigation Measure TCR-1, described below, has been identified to address this impact.

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

- SWID shall implement the following measures:

- Culturally affiliated Tribes will be further consulted concerning Tribal Cultural Resources that may be impacted if these types of resources are discovered during construction. Further consultation with culturally affiliated Tribes will focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. Should a Tribal Cultural Resource be identified in the project area during construction, the following performance standards shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of a Tribal Cultural Resource:
- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with consulting Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing on the CRHR, SWID will avoid damaging effects to the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible.

Timing: During construction activities
Responsibility: SWID and construction contractor(s)

Implementation of Mitigation Measure TCR-1 would reduce impacts to inadvertent discoveries of Tribal Cultural Resources to **less than significant** by consulting with interested California Native American Tribes concerning treatment of Tribal Cultural Resources.

3.19 Utilities and Service Systems

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) No utility services would need to be constructed or expanded as a result of the project. The proposed project involves the construction of new 1 mile long, Class 125, 21-inch bi-directional PVC pipe within the Kern County ROW, which would allow for improved water conveyance. Additionally, the project would improve the pumping capacity of the existing pumping pump allowing for the additional storage of 1,428 acre-feet per year during wet years. The District would coordinate with adjacent utility owners prior to and during construction to avoid damage to existing utilities within the County road ROW. When parallel and cross runs to the existing utilities are encountered, the new pipeline shall be modified to meet the requirements per Kern County Standards and local governing agencies. The proposed project would not require or result in new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. There would be **less-than-significant** impacts.

b) The proposed project would not require an additional water supply. The project would facilitate bi-directional conveyance between the District's north and south areas.

Additionally, the project would upgrade the SW-3 pump station to increase the pumping capacity to help meet agricultural demand during dry months. There would be **no impact**.

c) There are no wastewater facilities associate with the proposed project. There would be **no impact.**

d-e) A small amount of solid waste may be generated from the construction of the proposed project including, a very small amount of spoils and excavated material that would not be used for backfill of the trenches. This material would be hauled offsite to an approved facility or to a nearby District-owned land parcel for SWID's use. The nearest approved facility is the Shafter-Wasco Recycling & Sanitary Landfill which has adequate capacity to accept waste through 2053 (Calrecycle 2019). This impact would be **less than significant.**

3.20 Wildfire

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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

3.21 Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) The analysis conducted in this CEQA Environmental Checklist concludes that implementation of the proposed project would not have a significant impact on the environment. As evaluated in **Section 3.4**, "**Biological Resources**," impacts on biological resources would be less than significant with mitigation incorporated. The proposed project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in **Section 3.5** "**Cultural Resources**," the proposed project would not eliminate important examples of the major periods of California history or prehistory. This impact would be **less than significant.**

b) As discussed in this IS, the proposed project would result in less-than-significant impacts or no impacts on aesthetics, agricultural and forestry, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and services systems, and wildfire.

The temporary nature of the proposed project's construction impacts (approximately 4 months during a single construction season) would result in no impacts or less-than-significant environmental impacts on the physical environment. Additionally, implementation of the proposed project, along with many other small pipeline improvement and conjunctive use projects planned in the region by SWID and other adjacent water districts, would enhance regional water supply reliability and improve operational efficiency and flexibility within the District and region, and would have no detrimental cumulative impact on local and regional surface or groundwater sustainability. This impact would be **less than significant.**

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

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Chapter 4. References

Chapter 1. Introduction

No references cited.

Chapter 2. Project Background and Need

No references cited.

Chapter 3. Environmental Checklist

Chapter 3.1. Project Information

No references cited.

Chapter 3.2. Environmental Factors Potentially Affected

No references cited.

Chapter 3.3. Determination

No references cited.

Chapter 3.4. Aesthetics

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Chapter 3.8. Cultural Resources

See Cultural Resources Technical Report.

Chapter 3.9. Energy

No references cited.

Chapter 3.10. Geology and Soils

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Chapter 3.11. Greenhouse Gas Emissions

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Chapter 3.15. Mineral Resources

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Chapter 3.17. Population and Housing

No references cited.

Chapter 3.18. Public Services

No references cited.

Chapter 3.9. Recreation

No references cited.

Chapter 3.20. Transportation

No references cited.

Chapter 3.21. Tribal Cultural Resources

See Cultural Resources Technical Report.

Chapter 3.22. Utilities and Service Systems

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Chapter 3.23. Wildfire

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Chapter 3.24. Mandatory Findings of Significance

No references cited.

Chapter 5. List of Preparers

Christine Russo – Environmental Planner. GEI Consultants, Inc.

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Ginger Gillin – Senior Reviewer. GEI Consultants, Inc.

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Ryan Snyder – GIS Specialist. GEI Consultants, Inc.

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Appendix A. **Biological Resources Information**

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Wasco (3511953) OR Wasco NW (3511964) OR Wasco SW (3511954) OR Pond (3511963) OR McFarland (3511962) OR Famoso (3511952) OR Buttonwillow (3511944) OR Rio Bravo (3511943) OR Rosedale (3511942))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus hornii var. hornii	PDFAB0F421	None	None	GUT1	S1	1B.1
Horn's milk-vetch						
Atriplex cordulata var. erecticaulis	PDCHE042V0	None	None	G3T1	S1	1B.2
Earlimart orache						
Atriplex coronata var. vallicola	PDCHE04371	None	None	G4T3	S3	1B.2
Lost Hills crownscale						
Atriplex minuscula	PDCHE042M0	None	None	G2	S2	1B.1
lesser saltscale						
Atriplex subtilis	PDCHE042T0	None	None	G1	S1	1B.2
subtle orache						
Caulanthus californicus	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
California jewelflower						
Cirsium crassicaule	PDAST2E0U0	None	None	G1	S1	1B.1
slough thistle						
Delphinium recurvatum	PDRAN0B1J0	None	None	G2?	S2?	1B.2
recurved larkspur						
Eremalche parryi ssp. kernensis	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
Kern mallow						
Eriastrum hooveri	PDPLM03070	Delisted	None	G3	S3	4.2
Hoover's eriastrum						
Eryngium spinosepalum	PDAPI0Z0Y0	None	None	G2	S2	1B.2
spiny-sepaled button-celery						
Layia munzii	PDAST5N0B0	None	None	G2	S2	1B.2
Munz's tidy-tips						
Monolopia congdonii	PDASTA8010	Endangered	None	G2	S2	1B.2
San Joaquin woollythreads						
Stylocline masonii	PDAST8Y080	None	None	G1	S1	1B.1
Mason's neststraw						

Record Count: 14

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Wasco (3511953) OR Wasco NW (3511964) OR Wasco SW (3511954) OR Pond (3511963) OR McFarland (3511962) OR Famoso (3511952) OR Buttonwillow (3511944) OR Rio Bravo (3511943) OR Rosedale (3511942))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Ammospermophilus nelsoni Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Dipodomys nitratoides nitratoides Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Gambelia sila blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
Onychomys torridus tularensis Tulare grasshopper mouse	AMAFF06021	None	None	G5T1T2	S1S2	SSC
Perognathus inornatus San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Sorex ornatus relictus Buena Vista Lake ornate shrew	AMABA01102	Endangered	None	G5T1	S1	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 19

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

15 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3511964, 3511963, 3511962, 3511954, 3511953, 3511952, 3511944 3511943 and 3511942;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
Atriplex cordulata var. erecticaulis	Earlimart orache	Chenopodiaceae	annual herb	Aug-Sep(Nov)	1B.2	S1	G3T1
Atriplex coronata var. coronata	crownscale	Chenopodiaceae	annual herb	Mar-Oct	4.2	S3	G4T3
Atriplex coronata var. vallicola	Lost Hills crownscale	Chenopodiaceae	annual herb	Apr-Sep	1B.2	S2	G4T2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	1B.1	S2	G2
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	Jun,Aug,Sep(Oct)	1B.2	S1	G1
Caulanthus californicus	California jewelflower	Brassicaceae	annual herb	Feb-May	1B.1	S1	G1
Cirsium crassicaule	slough thistle	Asteraceae	annual / perennial herb	May-Aug	1B.1	S1	G1
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Eremalche parryi ssp. kernensis	Kern mallow	Malvaceae	annual herb	Jan,Mar,Apr,May(Feb)	1B.2	S3	G3G4T3
Eriastrum hooveri	Hoover's eriastrum	Polemoniaceae	annual herb	(Feb)Mar-Jul	4.2	S3	G3
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2
Layia munzii	Munz's tidy-tips	Asteraceae	annual herb	Mar-Apr	1B.2	S2	G2
Monolopia congdonii	San Joaquin woollythreads	Asteraceae	annual herb	(Jan)Feb-May	1B.2	S2	G2
Stylocline masonii	Mason's neststraw	Asteraceae	annual herb	Mar-May	1B.1	S1	G1

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 24 July 2020].

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The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

United States Department of the Interior

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

In Reply Refer To: July 24, 2020
Consultation Code: 08ESMF00-2020-SLI-2450
Event Code: 08ESMF00-2020-E-07548
Project Name: Bell Pipeline Project

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

To Whom It May Concern:

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

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

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2020-SLI-2450

Event Code: 08ESMF00-2020-E-07548

Project Name: Bell Pipeline Project

Project Type: WATER SUPPLY / DELIVERY

Project Description: The project includes installing approximately 1 mile of pipeline and upgrading an existing pump station to improve Shafter-Wasco Irrigation District water deliveries.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/35.53018281118369N119.26464931173018W

Counties: Kern, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
Giant Kangaroo Rat *Dipodomys ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat *Dipodomys nitratoides nitratoides* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf	Endangered

Reptiles

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

Amphibians

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

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Critical habitats

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

Appendix B. **Cultural Resources Technical Report**

The Cultural Resources Technical Report for the Shafter-Wasco Irrigation District Pipeline Improvements for Bell Recharge Project contains information regarding sensitive archeological and/or tribal cultural resources and is available to qualified individuals upon request.