RECLAMATION

Managing Water in the West

Environmental Assessment: 17-21-MP

Cawelo Water District Famoso Basin Pipeline Project

U.S. Department of the Interior
Bureau of Reclamation, Mid-Pacific Region

February 2018

Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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List of Acronyms and Abbreviations

AFY	acre feet per year
CALFED	Bay-Delta Program – collaboration among 25 state and federal agencies
canal	Friant-Kern Canal
CEQA	California Environmental Quality Act
CEQ	Counsel on Environmental Quality
CWD	Cawelo Water District
EA	Environmental Assessment
FKC	Friant-Kern Canal
ITA	Indian Trust Asset
IS/MND	Initial Study/Mitigated Negative Declaration
Proposed Action	Famoso Basin Pipeline Project
Reclamation	U.S. Bureau of Reclamation
ROW	right-of-way
SHPO	State Historic Preservation Officer

1. Introduction

In conformance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321, et seq.), Counsel on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), Department of Interior regulations (43 CFR Part 46), the United States (U.S.) Bureau of Reclamation (Reclamation) prepared this Environmental Assessment (EA) to disclose potential environmental effects associated with granting an SF-299 federal lands encroachment permit (encroachment permit) to implement Cawelo Water District's (CWD) Famoso Basin Pipeline Project (Proposed Action). The Proposed Action also includes Reclamation providing partial funding through the CALFED Water Use Efficiency Grant (CALFED grant). The CALFED Bay-Delta Program is a "collaboration among 25 state and federal agencies that came together with a mission: to improve California's water supply and the ecological health of the San Francisco Bay/Sacramento-San Joaquin River Delta" (CALFED, 2017). This EA examines the potential direct, indirect, and cumulative effects to the affected environment associated with granting the encroachment permit and awarding a CALFED grant of $750,000 to CWD.

1.1 Background

In March of 2016, CWD applied for a CALFED grant, Reclamation's Funding Opportunity Announcement No. BOR-MP-16-0002, for assistance in funding the Proposed Action. The Proposed Action is located northwest of Bakersfield between the Friant-Kern Canal (FKC or canal) and Highway 99, south of State Route 46, in Kern County, California (Figure 1). CWD would replace the use of 2.4 miles of unlined canals by installing a 1.8-mile-long, 36-inch-diameter, bi-directional, intertie pipeline, connecting the canal to CWDs Reservoir and Pump Station D (Figure 2).

1.2 Need for the Proposal

Due to severe drought, increased water demand and a continued strain on groundwater resources around the Proposed Action, CWD proposes to install a 1.8-mile-long pipeline to help eliminate water lost from seepage from unlined canals. Current seepage losses are estimated to be 1,229 acre feet per year (AFY) through the existing 2.4 miles of unlined canals which are used to deliver water from CWD to the FKC.

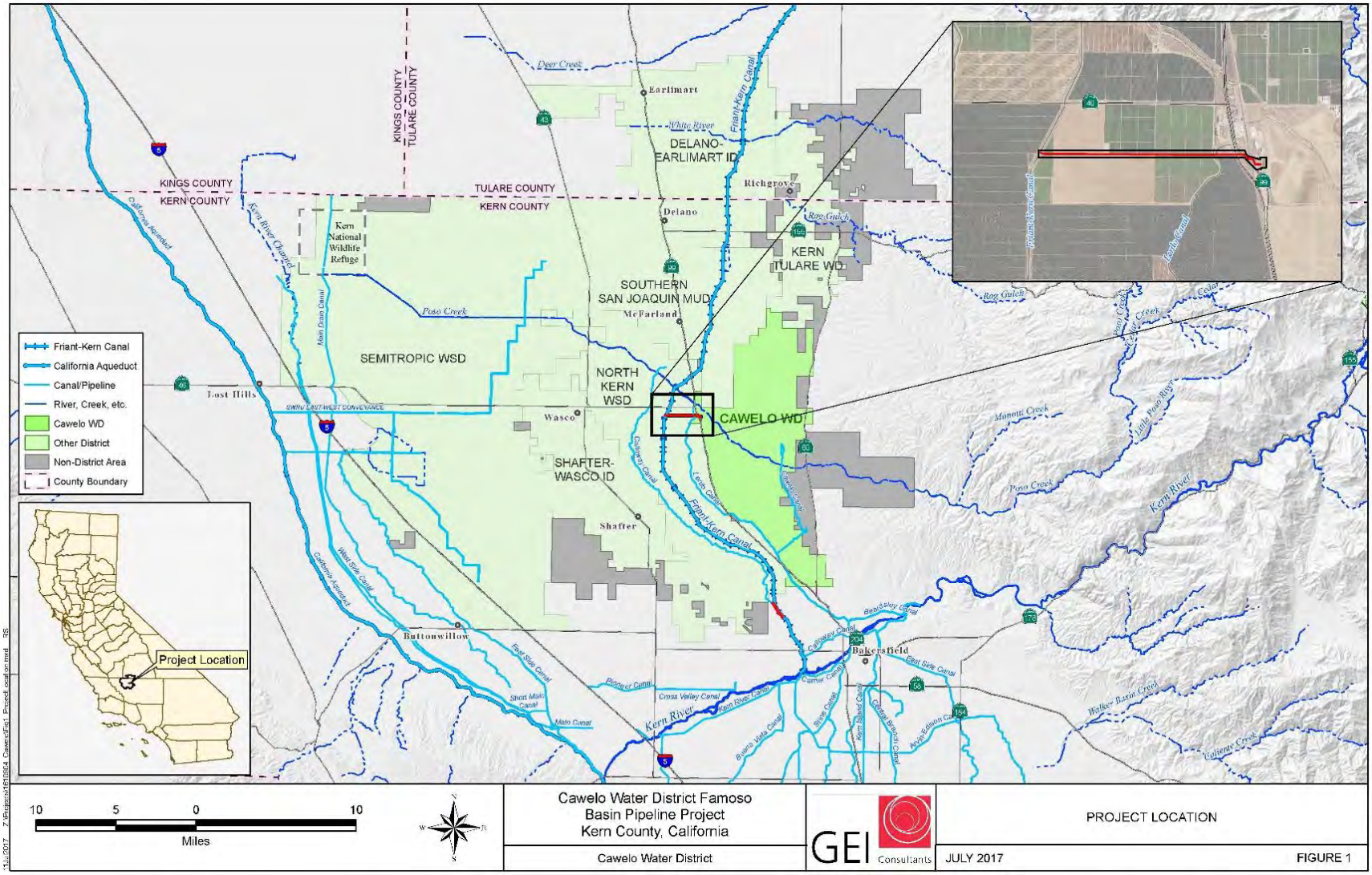


Figure 1: Project Location.

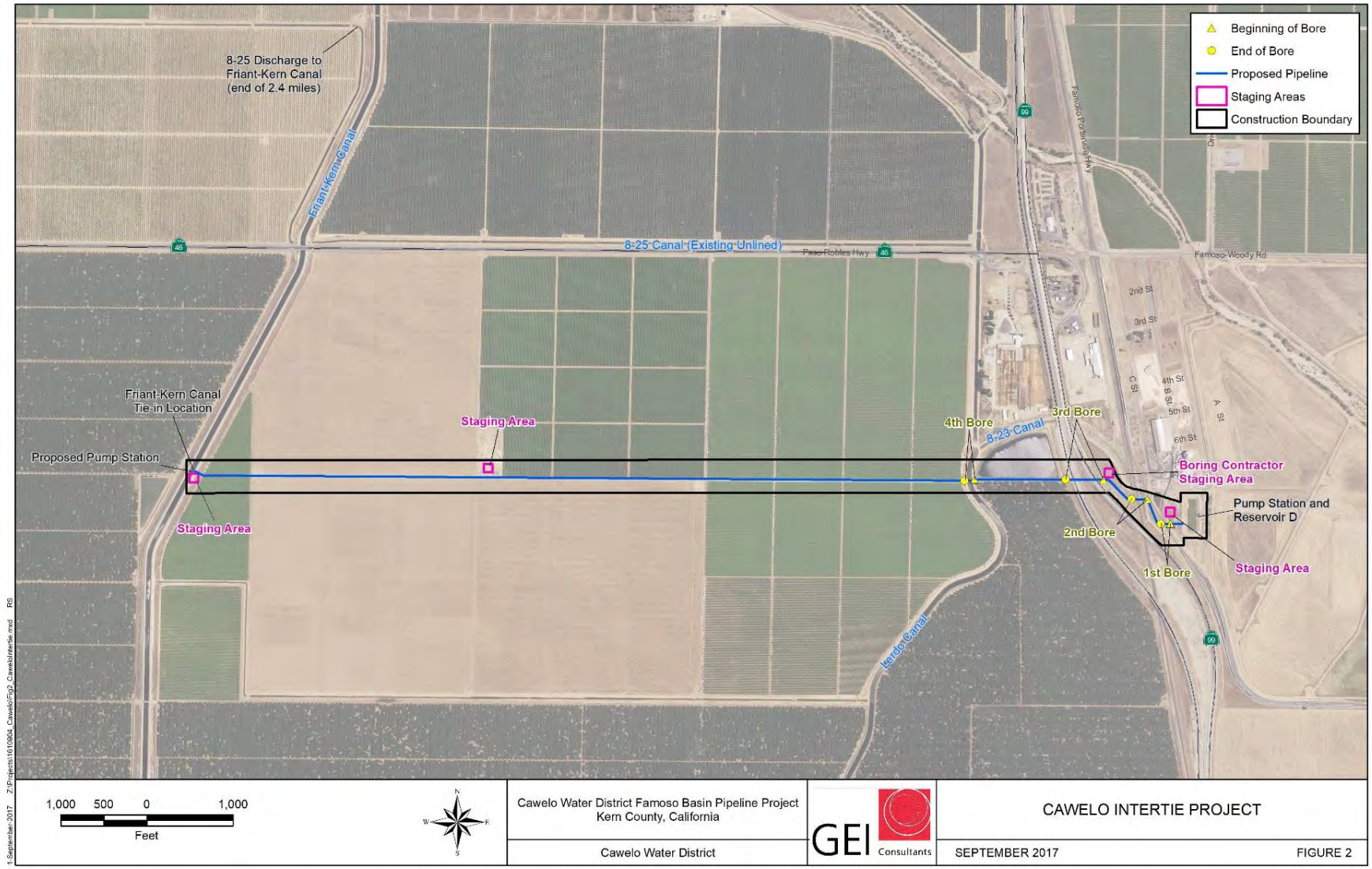


Figure 2: Famoso Basin Pipeline Project.

1.3 Previous Environmental Documents

The Proposed Action underwent previous environmental review and regulatory compliance under the California Environmental Quality Act (CEQA). An Initial Study and Proposed Mitigated Negative Declaration (IS/MND) was prepared in December 2017 for the Proposed Action. The IS/MND evaluating the following environmental resources: aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, tribal cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, utilities and service systems, and mandatory findings of significance. All of the resources analyzed in the IS/MND were found to either have no effect, less than significant effect, or less than significant with mitigation measures incorporated. There were no significant and unavoidable impacts associated with the Proposed Action (GEI Consultants, 2017). Reclamation reviewed the IS/MND and found the analysis sufficiently considered potential effects to the environment from implementing the Proposed Action, and herby incorporates that analysis by reference. The IS/MND and its associated mitigation measures is included in Appendix D. The IS/MND includes mitigation measures for air quality, biological resources, cultural resources, and paleontological resources.

2. Alternatives Including the Proposed Action

This EA considers two possible actions: "No Action Alternative" and "Proposed Action". The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the environment.

2.1 No Action Alternative

For the No Action Alternative, Reclamation would not issue an SF-299 federal lands encroachment permit and would not award CWD $750,000 in CALFED grant funds for the Proposed Action. Although it is possible that CWD may find alternate sources of funding for the Proposed Action, however, for purposes of this EA, the consequences of Reclamation not providing funding for the Proposed Action would result in no pipeline construction and no water savings equal to 1,229 AFY.

2.2 Proposed Action

Under the Proposed Action Alternative, Reclamation would grant the SF-299 federal lands encroachment permit to implement the Proposed Action to allow construction within the FKC right-of-way (ROW). Reclamation would also provide partial funding through a CALFED grant of $750,000 to CWD for construction of the Proposed Action. The Proposed Action would allow for the efficient conveyance and return of surface water between CWD and the FKC. Construction

activities associated with the Proposed Action involves the installation of a 1.8-mile long, 36-inch-diameter, bi-directional, intertie pipeline to replace the use of 2.4 miles of unlined canals. The bi-directional pipeline would connect to the FKC approximately a half mile south of State Route 46, and run 1.8 miles in an easterly direction within an existing dirt road until it reaches the Lerdo Canal (Figure 2). The pipeline would cross the Lerdo Canal and continue within an existing dirt road to reach Highway 99, south bound. CWD or its contractor would bore underneath the north and south bound lanes of Highway 99 and Burlington Northern and Santa Fe Railway to reach Pump Station and Reservoir D (Figure 2).

Construction would consist of activities consistent with digging, trenching, and excavation of soil to install the new pipeline. CWD or its contractor would utilize excavators, a loader and backhoe, two water trucks, two dump trucks and a crane, and deposit excavated materials adjacent to the pipe trench. The trench would be approximately 20 feet wide at the top and within existing dirt roads, disturbing no more than 35 feet on either side. Excavated soils would be utilized on site. The depth of the trench would be between 4 and 14 feet. CWD or its contractor would bore underneath the Lerdo Canal and Highway 99 approximately 14 feet and the remainder of pipe would be installed approximately 4 feet underground. Boring entry and exit pits would be no more than 12 by 30 feet. There will be three disturbed areas for staging equipment and materials. Access to the site would be via existing roads, landowner easements and highway and railroad ROW. Each staging area is estimated to be approximately 100 feet by 100 feet.

CWD has applied for an SF-299 encroachment permit for work within the FKC and FKC ROW. Upon environmental review, Reclamation would decide whether to grant or deny, or grant with modifications, CWDs encroachment permit application. The encroachment permit is to allow CWD, or its contractor, to utilize the FKC ROW within the Proposed Action area for construction equipment and materials needed to install the Friant Kern turnout. The turnout would be installed when the canal is down for maintenance or using a cofferdam. The turnout pipe size would be a 54-inch-diameter pipe within the FKC concrete embankment. The embankment would be excavated at approximately 4 feet below ground for the 54-inch-diameter pipe installation. Approximately three concrete canal lining panels of the FKC would be sawcut and removed on the east side slope. Upon completion of the reinforced concrete turnout structure, reforming the FKC would include pour cast-in-place concrete panels to match the existing canal panels.

Construction is expected to begin in the fall of 2017 and completed within approximately 8 months.

2.2.1 Environmental Commitments

As part of the Proposed Action, CWD and or its contractors will implement mitigation measures included in the IS/MND (Appendix D) for air quality, biological resources, greenhouse gas emissions, and noise. In a letter dated February 1, 2018, USFWS concurred with Reclamation, that the Proposed Action may affect, but is not likely to adversely affect listed species. The USFWS concurred with the conservation measures/environmental commitments included in the Biological

Assessment prepared by Booher Consulting, 2017. However, the USFWS omitted the following conservation measure from the Proposed Action as it is redundant with preceding measures:

vii. Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den(s) during the construction period. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity will cease immediately and monitoring the den as described above should resume. Destruction of the den(s) may be completed when, in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den(s).

3. Environmental Consequences

3.1 Required Resource Discussions

Department of Interior Regulations, Executive Orders, and Reclamation guidelines require a discussion of Indian sacred sites, Indian Trust Assets, and Environmental Justice when preparing environmental documentation. Impacts to these resources were considered and found to be minor or absent. Brief explanations for their elimination from further consideration are provided below.

3.1.1 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the U.S. for Indian Tribes or individual Indians. Indian reservations, Rancherias, and Public Domain Allotments are common ITAs in California. The nearest ITA is the Tule River Indian Tribe located 35.65 miles northeast of the Proposed Action. The Proposed Action does not have a potential to affect ITAs (Appendix B).

3.1.2 Indian Sacred Sites

Executive Order 13007 (May 24, 1996) requires that federal agencies accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and avoids adversely affecting the physical integrity of such sacred sites. The Proposed Action would not be located on federal lands and therefore would not affect access to or use of Indian sacred sites.

3.1.3 Environmental Justice

Executive Order 12898 requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects, including social and economic effects of its program, policies, and activities on minority populations and low-income populations. No significant changes in agricultural communities or practices would result from the Proposed Action. Implementing the Proposed Action is not likely to have adverse effects to any populations, and implementing the Proposed Action would therefore not have disproportionately high or adverse human health or environmental effects on low-income or minority populations.

3.1 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, Reclamation would not award CWD with a WaterSMART grant of $750,000. Although it is possible the CWD may find alternate sources of funding for the Proposed Action, for the purposes of this EA, the consequences of Reclamation not providing funding for the Proposed Action would result in no construction, which may result in CWD not being able to implement the Proposed Action and have future water savings of 1,229 AFY. The property would likely remain in agricultural production, and there would be no change to the affected environment.

3.2 Environmental Consequences of Funding the Proposed Action

According to the IS/MND prepared for the Proposed Action, the impacts associated with the project would occur primarily during the construction phase. Most construction impacts would be short term and temporary. These construction related impacts were considered less than significant or would be reduced to less than significant levels with appropriate mitigation measures (GEI Consultants, 2017). Operation of the project would not result in any significant and unavoidable impacts and would result in beneficial water savings (GEI Consultants, 2017). Mitigation measures associated with the Proposed Action are included in the IS/MND located in Appendix D.

3.3 Cumulative Effects

According to CEQ regulations for implementing the procedural provisions of NEPA, a cumulative impact is defined as:

> the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The IS/MND analyzed cumulative effects from the Proposed Action. The IS/MND found there to be an incremental increase in greenhouse gas and particulate matter from construction. However, operation of the Proposed Action would not result in a cumulatively significant increase in greenhouse gas and particulate matter. As a result, there would be no cumulatively considerable effects resulting from construction and operation of the project (GEI Consultants, 2017).

4. Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation consulted and coordinated with CWD, the State Historic Preservation Officer and the U.S. Fish and Wildlife Service.

4.2 Endangered Species Act

Section 7 of the federal Endangered Species Act (ESA) (16 USC § 1531 et seq.) requires federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of critical habitat for these species.

A Biological Assessment was prepared for the project by Boohr Consulting in July of 2017. Federally listed species that may occur in the Action Area and may be affected by the project include Tipton kangaroo rat, San Joaquin kit fox, and San Joaquin woolly-threads (Booher Consulting, 2017). No federally-listed species were observed in the Action Area during surveys. While most of the Action Area that is under agricultural production do not represent suitable habitat for listed species, a small portion may provide suitable habitat (Booher Consulting, 2017). Due to the low likelihood of Federally listed species being in the Action Area, project specific conservation measures, and other factors, Reclamation determined that the Proposed Action may affect, but is not likely to adversely affect the Tipton kangaroo rat, San Joaquin kit fox, and San Joaquin woolly-threads. On December 15, 2017, Reclamation notified the U.S. Fish and Wildlife Service (USFWS) of this determination, and asked that they concur with the determination. The USFWS concurred with Reclamation's determination and provided that concurrence by memorandum dated February 1, 2018 (Appendix C).

4.3 National Historic Preservation Act

The National Historic Preservation Act of 1966, as amended (Title 54 USC § 306108.), requires that federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties, properties that are eligible for inclusion in the National Register. The 36 CFR Part 800 regulations implement Section 106 of the National Historic Preservation Act.

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of federal undertakings on historic properties and properties determined eligible for inclusion in the National Register. Compliance with Section 106 follows a series of steps that are designed to identify interested parties, determine the area of potential effects, conduct cultural resource inventories, determine if historic properties are present within the area of potential effects, and assess effects on any identified historic properties.

A cultural resources report was completed for the undertaking, which Reclamation submitted to the State Historic Preservation Officer (SHPO) on December 5, 2017, for SHPO's review. One historic property was identified within the area of potential effects, Reclamation's FKC. Reclamation asked for concurrence that the Proposed Action would result in no adverse effect to the FKC pursuant to 36 CFR § 800.5(b). SHPO responded on December 20, 2017, with no objection to Reclamation's findings (Appendix B).

5. Reference

CALFED Bay-Delta Program (CALFED). 2017. CALFED mission statement. http://calwater.ca.gov/calfed/about/index.html

GEI Consultants. 2017. Cawelo Water District (CWD). Famoso Basin Pipeline Project Initial Study and Mitigated Negative Declaration. 2017.

Booher Consulting. 2017. Biological Assessment. Cawelo Water District. Famoso Pipeline Project, Kern County, California.

Appendix A Cultural Resources Compliance

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

December 20, 2017

Reply in Reference To: BUR_2017_1205_003

Ms. Anastasia T. Leigh
Regional Environmental Officer
Bureau of Reclamation, Mid-Pacific Region
2800 Cottage Way
Sacramento, CA 95825-1898

RE: Cawelo Water District (CWD) Friant-Kern Canal (FKC) and Famoso Pipeline Project, Kern County, California (16-SCAO-234)

Dear Ms. Leigh:

The State Historic Preservation Officer (SHPO) has received the December 5, 2017, letter initiating consultation for the above-referenced project to comply with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 300101), as amended, and its implementing regulation found at 36 CFR § 800. The Bureau of Reclamation (Reclamation) is seeking my comments regarding the effects the undertaking described below will have on historic properties. Included with the consultation letter were:

- *Cultural Resources Inventory and Evaluation Report for the Famoso Basin Pipeline Project*, prepared for the CWD by GEI Consultants in August, 2017

As described in the consultation package, the undertaking involves the installation of a 1.8 mile long, 36-inch and 54-inch diameter, bi-directional, intertie pipeline from the FKC to the reservoir of CWD's Pump Station D. The new pipeline will be constructed with cut-and-cover trenches, and will be directionally bored under the Burlington Northern Santa Fe Railroad (BNSF), CWD's Lerdo Canal, Highway 99, and the dirt road west of the Pump Station D/Reservoir D facilities. The new pipeline will connect with the FKC via a new concrete turnout. The concrete lining of the FKC will be removed for installation of the turnout, and the new lining will be re-contoured to match the appearance of the existing. Staging of equipment and materials will occur in three 100 square-foot locations. Access will be via existing paved and dirt roadways.

The Area of Potential Effect (APE), as fully described in the report, includes all construction and staging areas for the undertaking. It is approximately 98.2 acres with a maximum vertical APE of 21.5 feet.

Identification efforts included archival research, inventory of the project site, and evaluation of resources within the APE, as well as Native American consultation. The geoarchaeological assessment indicated that the APE has a very low sensitivity for buried resources, and no archaeological resources were identified. Two built environment resources were identified, the FKC and Pump Station D. The FKC has been previously determined eligible for the National Register of Historic Places (NRHP) in 1997. Pump Station D does not meet the 50-year threshold for historic properties and does not demonstrate exceptional significance under Criterion Consideration G. The Burlington Northern Santa Fe Railroad (BNSF), CWD's Lerdo Canal, Highway 99, and the dirt road west of the Pump Station D/Reservoir D facilities will be avoided by directional boring beneath them.

Reclamation has found that the undertaking will have no adverse effect to historic properties because it complies with the Secretary of the Interior's Standards for Rehabilitation. After reviewing the information submitted with your letter, I offer the following comments:

- I agree that the Area of Potential Effect (APE) as represented in the attachments to your letter is appropriate, per 36 CFR § 800.4(a)(1).
- I concur that Reclamation's identification and evaluation efforts are sufficient for this undertaking, per 36 CFR § 800.4(b).
- I concur with your finding and agree that pursuant to 36 CFR § 800.5(b), a Finding of No Adverse Effect is appropriate for the undertaking as described.
- Please be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, you may have future responsibilities for this undertaking under 36 CFR § 800.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you have any questions or concerns, please contact Kathleen Forrest, Historian, at (916) 445-7022 or Kathleen.Forrest@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Appendix B Indian Trust Assets Compliance

Indian Trust Assets Request Form (MP Region)

Submit your request to your office's ITA designee or to MP-400, attention Kevin Clancy.

Date: 10/11/2016

Requested by (office/progra	Nathaniel Martin
Fund	17XR0680A1
WBS	RX317210000000000
Fund Cost Center	RR02015200
Region # (if other than MP)	
Project Name	Cawelo Water District Famoso Basin Pipeline Project
CEC or EA Number	NA
Project Description (attach additional sheets if needed and include photos if appropriate)	The project involves the installation of 1.8-mile long, 36-inch diameter, bi-directional, intertie pipeline. Interties are connections between water distribution systems. Interties between delivery facilities provides water managers flexibility to offset demands for other supplies (Hanak et al 2011). The proposed pipeline will replace the use of an existing 2.4-mile unlined canal which currently results in seepage loss and evaporation. In the district, water supplies used to meet demand include the Central Valley Project (CVP), groundwater, water from the State Water Project (SWP), and the Kern River. Replacing open channels with pipelines reduces water losses from seepage and evaporation. The Proposed Action would allow for additional surface water supplies to be integrated into district distribution systems to which would conserve groundwater. By conserving local groundwater, district estimates that a 1,229 AFY demand reduction from the Bay-Delta.

***Project Location (Township, Range, Section, e.g., T12 R5E S10, or Lat/Long cords, DD-MM-SS or decimal degrees). Include map(s)**	LAT: -119.24401 LONG: 35.58853

Nathaniel Martin	Nathaniel Martin	10/11/2016
Signature	Printed name of preparer	Date

ITA Determination:

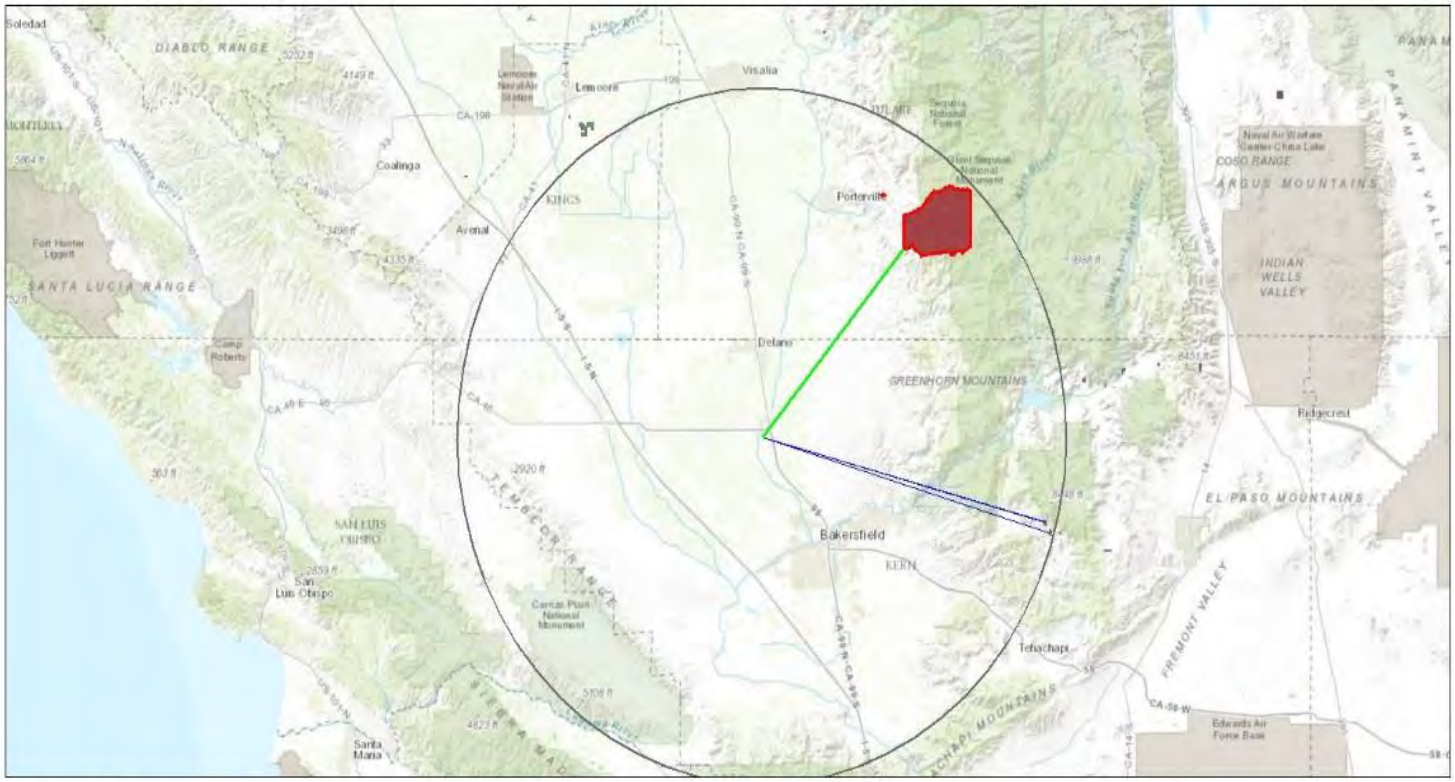
The closest ITA to the proposed **Famoso Canal and 8-23 Intertie Pipeline Project CALFED Water Use Efficiency Grant** activity is the

Tule River Indian Tribe about **35.65** miles to the **northeast**. (See attached image).

Based on the nature of the planned work it **does not** appear to be in an area that will impact Indian hunting or fishing resources or water rights nor is the proposed activity on actual Indian lands. It is reasonable to assume that the proposed action **will not** have any impacts on ITAs.

K. Clancy	Kevin Clancy	10/11/2016
Signature	Printed name of approver	Date

Cawelo ITA



Native American Lands FL
- PDA
- Rancheria
- Reservation

Native American Lands
- <all other values>
- Alaska Native Regional Corporation
- Alaska Native Village Statistical Area
- American Indian Reservation
- Colony
- Community
- Federally Recognized Tribal Entity
- Federally Recognized Tribal Entity (no land base)
- Not Provided
- Off-Reservation Trust Land
- Off-reservation Trust Land
- PDA
- Rancheria
- Reservation
- State Designated American Indian Statistical Area
- Tribal Designated Statistical Area
- Tribal Jurisdiction Statistical Area
- Village

0 5 10 20 Miles

RECLAMATION
Managing Water in the West

Appendix C Endangered Species Correspondence

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

In Reply Refer to:
08ESMF00-
2018-I-0967

FEB 01 2018

Memorandum

To: Anastasia T. Leigh, Regional Environmental Officer, Mid-Pacific Regional Office
Bureau of Reclamation, Sacramento, California

From: Patricia Cole, Chief, San Joaquin Valley Division, Sacramento Fish and Wildlife Office, Sacramento, California Patricia Cole

Subject: Informal Consultation on the Famoso Basin Pipeline Project, Cawelo Water District, Kern County, California

This memorandum is in response to your November 15, 2017, request for initiation of informal consultation with the U.S. Fish and Wildlife Service (Service) on the Famoso Basin Pipeline Project (Project) in Kern County, California. At issue are the potential effects of the proposed project on the federally-listed as endangered Tipton kangaroo rat (*Dipodomys nitratoides nitratodes*), San Joaquin kit fox (*Vulpes macrotis mutica*), and San Joaquin woolly-threads (*Monolopia congdonii*).

This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)(Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

The federal action on which we are consulting is the Bureau of Reclamation's (Reclamation) proposed issuance of a WaterSMART Grant to the Cawelo Water District (District) for the construction of a 1.8-mile-long pipeline that would replace 2.4 miles of unlined canal. The Bureau of Reclamation (Reclamation) has requested concurrence with the conclusion the proposed Project may affect, but is not likely to adversely affect (NLAA) the Tipton kangaroo rat, the San Joaquin kit fox, and the San Joaquin woolly-threads.

Reclamation has requested initiation of informal consultation under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). Our response is based on the following information: (1) an initial biological assessment (BA) and consultation request letter dated December 15, 2017; (2) email exchanges in January 2018; and (3) other information available to the Service.

Project Description

The District will install a 1.8-mile long, 36-inch diameter, bi-directional, intertie pipeline connecting the Friant-Kern Canal (FKC) to the District's pump station and reservoir. The proposed pipeline will replace the use of 2.4-miles of unlined canals. However, the unlined canals will remain in

operation for use by other water districts. The Project is located approximately 0.50 miles south of State Route 46, and will run underground in an easterly direction within an existing dirt road from the FKC until it reaches the Lerdo Canal.

The pipeline will be installed through a combination direct trenching and boring under highways, a railroad, and the Lerdo Canal. Construction will consist of activities consistent with digging, trenching, and excavation of soil to install the new pipeline. The District will utilize excavators, a loader and backhoe, two (2) water trucks, two (2) dump trucks and a crane. Excavated materials will be deposited adjacent to the pipe trench. The trench will be approximately 20 feet wide and 4 to 14 feet deep. All of the trenching will be confined to existing dirt roads. Surface disturbance for construction will be no more than 70 feet wide (35 feet on either side of centerline). Excavated soils will be used on site to backfill the trench after the pipeline is installed. The District will bore underneath the Lerdo Canal and California State Route 99 (SR 99) approximately 14 feet deep for the pipe installation and the remainder of pipe will be installed approximately 4 feet underground in all other Project locations. Boring entry and exit pits will be contained within the Project boundary and will be no more than 12 feet by 30 feet each. The District will bore underneath the north and south bound lanes of SR 99 and the Burlington Northern Santa Fe (BNSF) Rail line to reach the pump station and reservoir. The Project will use three disturbed areas for staging equipment and materials. Each staging area will be approximately 100 square feet. The District will install an electric pumping plant outside the FKC right-of way (ROW) that will occupy approximately 50 square feet of land outside the FKC ROW and 5,000 square feet within the FKC ROW. Two pumps will be installed within the pumping plant. The concrete embankment of the FKC will be excavated at approximately 4 feet below ground for the 36-inch diameter pipe and the concrete lining will be reformed after installation. It is expected that the Project will take approximately 8 months to complete.

Biological surveys were conducted for the proposed Project on November 18, 2016, January 4, 2017, and March 22, 2017. Botanical surveys were completed during the appropriate blooming period to detect San Joaquin woolly-threads. No federally-listed species were observed in the Project area during biological resource surveys.

Very little natural habitat remains within the Project area. Lands within and surrounding the Project area are a mix of bare ground, developed agriculture, and ruderal habitat. Small areas of non-native grassland were found on either end of the Project area.

The majority of land within and around the Project area is under agricultural production, mainly nut orchards and vineyards. Small areas of ruderal habitat exists around the edges of the fields and along canal roads. Vegetation in ruderal habitat was sparse and limited to non-native weed species. The canal roads and staging area are devoid of vegetation. On the west end of the Project, a narrow strip of non-native annual grassland runs parallel to the FKC and is situated between a paved road and the two-track road along the canal. This small strip is dominated by redstem filaree (*Erodium cicutarium*). East of SR 99 and along the railroad corridor, annual grasses such as red brome (*Bromus madritensis*), mustard (*Brassica nigra*), and Russian thistle (*Salsola tragus*) were dominant. California ground squirrel (*Otosphermobilus beecheyi*) burrows were present throughout vegetated areas adjacent to the railroad tracks.

There are numerous records in the California Natural Diversity Database (CNDDB) of San Joaquin kit fox within 5 miles of the Project, including one record that overlaps the eastern end of the Project area. Ruderal habitats within the proposed Project area could provide limited foraging and movement habitat for the San Joaquin kit fox. California ground squirrels are suitable prey for the

San Joaquin kit fox and their burrows also provide denning opportunities. Although the surrounding orchards and vineyards can limit movement of San Joaquin kit fox, canal banks and unimproved roads are often used as movement corridors. Because of the presence of these corridors, the availability of suitable prey, and the number of nearby records in CNDDB, San Joaquin kit fox may move through the Project area. However, the lack of sign or evidence of denning indicate that San Joaquin kit fox occurrence within the Project area is likely occasional and transitory.

There are no records in CNDDB of Tipton kangaroo rat within the proposed Project area. The closest record of a Tipton kangaroo rat in CNDDB is approximately 0.7 mile north of the west end of the Project. No Tipton kangaroo rat sign was observed within the proposed Project area. Suitable habitat within the proposed Project is limited to small areas of ruderal and non-native grassland habitat the canal, railroad, and the margins of the agricultural fields. There is limited potential for the Tipton kangaroo rat to occur in the Project area and the District has proposed Conservation Measures below that will avoid effects to the species.

The closest record of San Joaquin woolly-threads in CNDDB is approximately 7 miles south of the Project area. It is unknown if any viable seed for the San Joaquin wooly-threads remains within the seed bank in any of the Project area. However, given the extensive cultivation and disturbance in an around the Project area, persistence of a local population is unlikely. If any plants are discovered, they will be avoided.

Conservation Measures

As part of the Project, Reclamation and District staff and their contractors will implement Avoidance and Minimization Measures (AMM) and Best Management Practices prior to and during construction activities to minimize and avoid effects to sensitive species. The AMM's include the following:

1. An Environmental Awareness Program will be presented to all Project personnel working in the field prior to any construction activity. The program will consist of a presentation in which a qualified biologist (one knowledgeable of endangered species biology and regulatory protections) will explain endangered species concerns and answer questions. The program will address the Federally-listed San Joaquin kit fox and Tipton kangaroo rat biology, habitat needs, status under the Federal Endangered Species Act, and measures being incorporated for the protection of these species and their habitats. Consequences of non-compliance, and benefits of compliance will be addressed. Upon completion of training, all Project personnel will sign a form stating that they have received the training and understand the material.

2. No more than 14 days prior to construction, a qualified biologist will conduct a biological pre-construction survey in uncultivated areas of the Project. If Project activities do not begin within 14 days of pre-construction surveys, then additional pre-construction surveys will be required. Pre-construction surveys will be conducted to determine the potential for listed species in the Project area or immediate vicinity.

    a. If no burrows, dens, or listed species are identified within proposed construction areas, then construction activities may proceed.

    b. If burrows or dens that may potentially be used by listed species are found in construction areas during pre-construction surveys, then exclusion zones will be established following the guidelines below.

i. All small mammal burrows that may serve as potential for Tipton kangaroo rat will be avoided by Project activities and a minimum 50 foot "no disturbance" area will be maintained.

ii. If dens are identified during pre-construction surveys that may be used by San Joaquin kit fox, protective exclusion zones will be established prior to Project activities, in accordance with the Service's *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (2011).

iii. If a natal/pupping den is discovered in the Project area, the Service will be notified immediately. Natal/pupping dens may not be destroyed while occupied, and an Incidental Take Statement must be obtained before any disturbance to the dens can occur.

iv. If burrow and den avoidance is not feasible, or if exclusion zones cannot be maintained, the Service will be notified immediately to discuss ways to proceed with the Project while avoiding take or Reclamation will obtain an Incidental Take Statement.

v. Potential dens occurring within the footprint of the Project or within 50 feet will be monitored for four consecutive days with tracking medium or an infra-red camera beam to determine the current use. If no San Joaquin kit fox activity is observed during this period, the den(s) may be made inaccessible (through one-way door or other means) to preclude subsequent use.

vi. If San Joaquin kit fox activity is observed at the den(s) during this period, the den(s) will be monitored for a minimum of five additional consecutive nights from the time of the observation and the Service will be contacted. No work will occur within the established exclusion zone until Reclamation and the Service have determined a way for the Project to proceed and avoid take or Reclamation has obtained an Incidental Take Statement.

3. Project site boundaries (limits of disturbance) in uncultivated areas will be clearly delineated by stakes and/or flagging prior to construction. Project activities including vehicle travel and parking will be confined to the Project site.

4. Construction activities will occur during daylight hours (no work will occur 30 minutes before sunrise or 30 minutes after sunset).

5. During the year prior to construction, surveys will be timed during the appropriate blooming period (February-May) to detect San Joaquin woolly-threads.

   a. If no plants or populations of San Joaquin woolly-threads are present in construction areas, then project activities may proceed.

   b. If plants or populations of San Joaquin woolly-threads or other listed plants are present in the Action Area, flagging will be used to identify the population(s). San Joaquin woolly-threads will be avoided by Project activities and no disturbance will be permitted within 50 feet of listed plant populations.

c. If San Joaquin woolly-threads or other listed plants are found during preconstruction surveys, or if exclusion zones cannot be maintained, the Service will be notified immediately to discuss ways to proceed with the Project while avoiding take or Reclamation will obtain an Incidental Take Statement.

6. The District will implement the following measures to protect San Joaquin kit fox and Tipton kangaroo rat:

   a. To prevent entrapment of San Joaquin kit fox or other animals during construction, all excavated steep-walled trenches two (2) feet or more in depth will be covered at the close of each working day by plywood or similar material. For trenches that cannot be closed daily, one or more escape ramps constructed of earth fill or wooden planks will be installed. Ramps will be installed at no less than 45-degree angles. All covered or uncovered excavations will be inspected at the beginning, middle, and end of each work day and non-work day.

      i. Before such trenches are filled they will be thoroughly inspected for trapped animals.

      ii. If at any time a trapped or injured San Joaquin kit fox, Tipton kangaroo rat, or other listed animal is discovered, project implementation will stop, and escape ramps or structures will be installed immediately to allow the animal(s) to escape. If any listed species is discovered that is unable to escape voluntarily, the Service will be contacted for guidance.

   b. All pipes, culverts, or similar structures stored at the Project site overnight having a diameter of four inches or greater will be inspected thoroughly for wildlife species before being buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight will be capped. If during Project implementation a wildlife species is discovered inside a pipe, that section of pipe will not be moved or, if necessary, moved only once to remove it from the path of Project activity, until the wildlife species has escaped.

   c. The District will designate a Project representative as the contact for any employee or contractor who finds a dead, injured, or entrapped San Joaquin kit fox or Tipton kangaroo rat. If a listed species is found dead, injured, or entrapped in the Project site, the Service will be notified immediately.

7. All food-related trash items such as wrappers, cans, bottles or food scraps generated during Project activities will be disposed of only in closed containers and removed daily from the Project site. No deliberate feeding of wildlife will be allowed.

8. To prevent harassment or mortality of wildlife species via predation, or destruction of their dens or burrows, no domestic pets will be permitted on the Project site.

9. Hazardous materials, fuels, lubricants, and solvents that spill accidentally during Project related activities will be cleaned up and removed from the proposed Project site as soon as possible according to applicable federal, state and local regulations.

10. All sightings of listed species will be reported immediately to the Service.

Conclusion

The Service concurs with your determination that the Project may affect, but is not likely to adversely affect the San Joaquin kit fox, Tipton kangaroo rat, or San Joaquin woolly-threads. Our concurrence with NLAA for this Project is based on the small area of permanent impacts, lack of suitable habitat within the Project area, lack of sightings and sign, and environmental commitments in Reclamations' December 2017 consultation request letter and biological assessment and included above.

This concludes the Service's review of the Project. No further coordination with the Service under the Act is necessary at this time. Please note, however, this letter does not authorize take of listed species. As provided in 50 CFR §402.14, initiation of formal consultation is required where there is discretionary federal involvement or control over the action (or is authorized by law) and if: (1) new information reveals the effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this review; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this review; or (3) a new species is listed or critical habitat designated that may be affected by the action.

If you have questions regarding this action, please contact Tim Ludwick, Fish and Wildlife Biologist, at (timothy_ludwick@fws.gov) or (916) 414-6551 or Patricia Cole (patricia_cole@fws.gov) at the letterhead address.

cc:
Craig Bailey, California Department of Fish and Wildlife, Fresno, CA

Appendix D Initial Study Mitigated Negative Declaration

Initial Study and
Proposed Mitigated Negative Declaration
for
Cawelo Water District, Famoso Basin Pipeline Project

Lead Agency: Cawelo Water District

For additional information
regarding this document contact:

David Ansolabehere, General Manager
Cawelo Water District
17207 Industrial Farm Rd.
Bakersfield, CA 93308
Phone: 661-393-6072

December 2017

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Section A. Environmental Checklist

1. **Project title:**

   Cawelo Water District, Famoso Basin Pipeline Project (Proposed Project)

2. **Lead Agency/Project Sponsor:**

   Cawelo Water District
   17207 Industrial Farm Road
   Bakersfield, CA 93308

3. **Contact person and phone number:**

   David Ansolabehere 661-393-6072

4. **Project location:**

   The Project area is located west of the Cawelo Water District (CWD or District), approximately 5 miles east of Wasco, Kern County, California (Figure 1).

5. **General plan designation:**

   NA

6. **Zoning:**

   A (Exclusive Agriculture), A-1 (Limited Agriculture), and CH (Highway Commercial)

7. **Description of project: (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

   Due to severe drought, increased water demand and a continued strain on groundwater resources around the Proposed Action, CWD proposes to install a pipeline to help eliminate water lost from seepage from unlined canals. Current seepage losses are estimated to be 1,229 acre feet per year (AFY) through the existing 2.4 miles of unlined canals which are used to deliver water from CWD to the Friant-Kern Canal (FKC). Additionally, the existing canals will continue to be used by a neighboring district that transports oil-field-produced waters. Canals used for this purpose cannot transport water into the FKC. CWD is required to have a separate transportation system to transfer water from CWD's groundwater wells into the FKC.

   Construction activities associated with the Proposed Project involve the installation of a 1.8-mile-long, 36-inch-diameter, bi-directional, intertie pipeline to replace the use of 2.4 miles of unlined canals. The bi-directional pipeline would connect to the FKC

approximately a half mile south of State Route 46, and run 1.8 miles in an easterly direction within an existing dirt road until it reaches the Lerdo Canal. The pipeline would cross the Lerdo Canal and continue within an existing dirt road to reach Highway 99, south bound. CWD or its contractor would bore underneath the north and south bound lanes of Highway 99 and Burlington Northern and Santa Fe Railway Burlington North Rail line to reach Pump Station and Reservoir D (Figure 2).

Construction would consist of activities consistent with digging, trenching, and excavation of soil to install the new pipeline. CWD or its contractor would utilize excavators, a loader, backhoe, two water trucks, two dump trucks and a crane, and deposit excavated materials adjacent to the pipe trench. The trench would be approximately 20 feet wide at the top and within existing dirt roads, disturbing no more than 35 feet on either side. Excavated soils would be utilized on site. The depth of the trench would be between 4 and 14 feet. CWD or its contractor would bore underneath the Lerdo Canal and Highway 99 approximately 14 feet and the remainder of pipe would be installed approximately 4 feet underground. Boring entry and exit pits would be no more than 12 by 30 feet. There will be three disturbed areas for staging equipment and materials. Access to the site would be via existing roads, landowner easements and highway and railroad rights-of-way (ROWs). Each staging area is estimated to be approximately 100 feet by 100 feet (10,000 ft^2).

CWD has applied for U.S. Bureau of Reclamation's (Reclamation) Standard Form an *SF-299 -Application for Transportation and Utility Systems and Facilities on Federal Lands* encroachment permit for work within the FKC and FKC ROW. Upon environmental review, Reclamation would decide whether to grant or deny, or grant with modifications, CWDs encroachment permit application. The encroachment permit is to allow CWD, or its contractor, to utilize the FKC ROW within the Proposed Project boundary for construction equipment and materials needed to install the Friant Kern turnout. The turnout would be installed when the canal is down for maintenance or using a cofferdam. The turnout pipe size would be a 54-inch-diameter pipe within the FKC concrete embankment. The embankment of the FKC would be excavated at approximately 4 feet below ground for the 54-inch diameter pipe installation. Approximately three concrete canal lining panels of the FKC would be sawcut and removed on the east side slope. Upon completion of the reinforced concrete turnout structure, reforming the FKC would include pour cast-in-place concrete panels to match the existing canal panels.

Adjacent to the FKC ROW, CWD or its contractor, would construct an electric pumping plant that would pump water at 45 cubic feet per second (cfs) and occupy approximately 50 feet by 50 feet (2500 ft^2) of land provided through an easement with the landowner to CWD.

Construction is expected to begin in the spring of 2018 and completed within approximately 8 months.

8. Surrounding land uses and setting:

The surrounding land use is almost exclusively active agricultural that includes crops and water conveyance facilities. The FKC is located to the west and Highway 99 to the east of the Project.

9. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- Storm Water Pollution Prevention Plan (SWPPP)
- San Joaquin Valley Air Pollution Control District – Dust Control Plan
- UPRR Encroachment Permit to cross railroad.
- Caltrans Encroachment Permit to cross Hwy 99
- Cal OSHA Tunnel Classification Permit for each of the Cased Crossings
- USBR Permit for Friant-Kern Canal

10. 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?

No California Native American Tribes have requested consultation. The Native American Heritage Commission and all known tribes in the Project vicinity were notified on March 1, 2017.

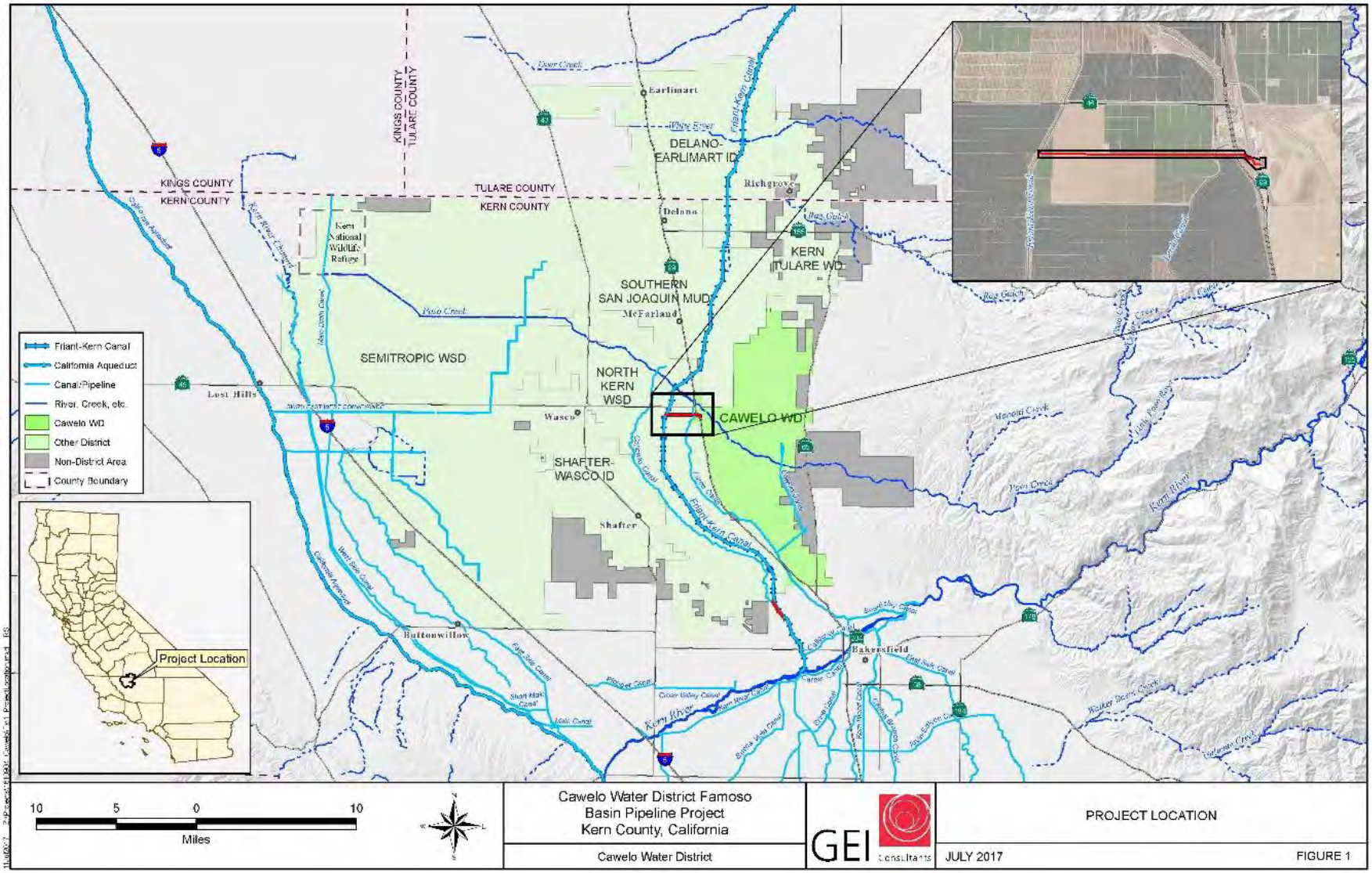

Figure 3: Project Location

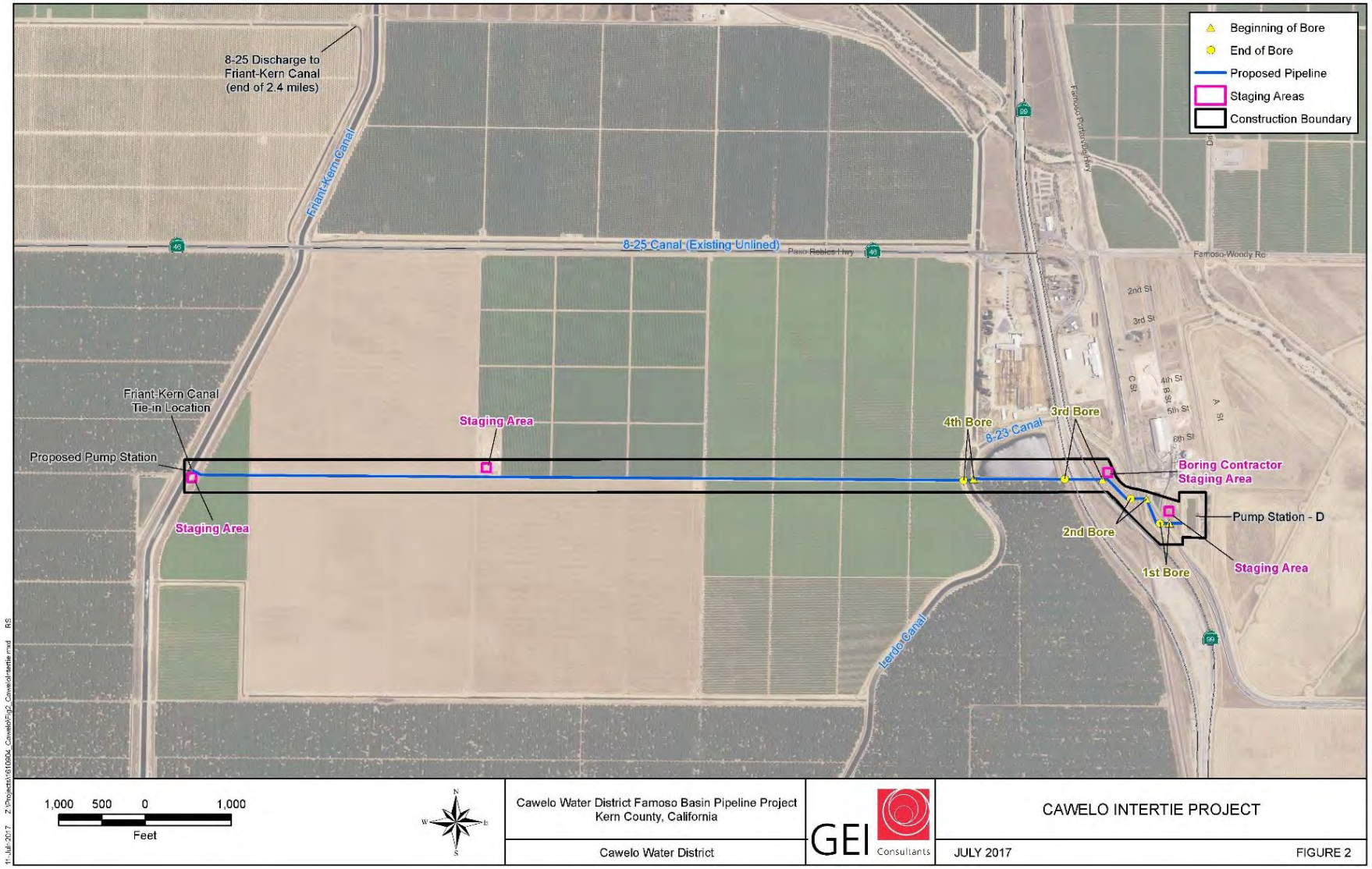

Figure 4: Cawelo Water District Famoso Basin Pipeline Project

Section B. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Signature_____ Date_____

Signature_____ Date_____

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

(a-d) The Proposed Project area is flat; comprising dirt roads, open water canals, and various agricultural crops (Figure 3). There are no significant view-sheds or scenic vistas. The Proposed Project involves buried water conveyance facilities that would connect the FKC to the District's Reservoir and Pump Station D. A new pump station would be constructed adjacent to the FKC ROW. Other than a new pump station, there would be little change to the existing view. Pump stations are common structures within the vicinity of the Proposed Project area due to major federal, state, and local water conveyance systems.

The Proposed Project would not create any new sources of light.

The construction activities would last approximately 8 months and only occur during daylight hours. During construction, there would be a small number of construction vehicles at the site; however, this would not be substantially different than agricultural equipment normally used in the area. Construction and operation of the Proposed Project would not appear different than current operations in the area. Therefore, the Proposed Project would have a less than significant impact to visual resources.

Figure 5: Typical View Shed in the Project Area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES – Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
(a-e) The Proposed Project is located in an agricultural area that is almost entirely in active production (with the exception of roads and canals, and related conveyance facilities). There are no forest lands or timberlands within the Proposed Project area. The Proposed Project area is classified as Prime Farmland (California Department of Conservation 2017a). Agricultural crops adjacent to the pipeline boundary would be removed to allow access of equipment during construction. The crops would be replanted and maintained for agricultural purposes after construction of the pipeline. Impacts to agriculture would temporary and therefore be less than significant.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

(a-e) The Proposed Project is located within the southern San Joaquin air-shed, surrounded by agricultural fields, dirt roads, and Highway 99. The San Joaquin air-shed is in non-compliance for state air quality standards for ozone, 1- and 8-hour, and Particulate Matter (PM)10 microns or less and PM2.5 microns or less (San Joaquin Valley Air Pollution Control District [SJVAPCD] 2017a). Construction for the Proposed Project would take 8 months and utilize typical construction vehicles that include employee work trucks, excavators, a crane, backhoe, loader, and dump trucks. Short-term air quality impacts would be associated with construction, and would generally arise from dust generation and operation of construction equipment during construction. The Proposed Project could potentially utilize up to 10 construction vehicles to deliver employees and materials to the Proposed Project site. Ten vehicles traveling to and from the construction sites, two roundtrips per vehicle, would total 40 vehicle trips per day. Using project size and type based on the Small Project Analysis Level (SJVAPCD 2017b), the Proposed Project would not exceed SJVAPCD established significance threshold of 1,673 vehicle trips a day for commercial projects.

The primary concern for construction of the Proposed Project is PM emissions from fugitive dust. The District would utilize water trucks and develop a Dust Control Plan for compliance with the SJVAPCD Regulation VIII, Fugitive PM10 Prohibitions (2012) during construction to contain fugitive dust. Particulate matter would be maintained to insignificant levels.

With the implementation of the Dust Control Plan, the Proposed Project is not expected to contribute substantially to existing levels of PM10 or conflict with the SJVAPCD's air quality plan (Mitigation Measures, Section E). The Proposed Project area is located on agricultural lands primarily and with a boundary adjacent to a major highway. There are no sensitive receptors in the Proposed Project area. Due to the mobile nature of

the pipeline construction, any emission issues would last only a few days at each site. Therefore, impacts would be less than significant.

The operation phase of the Proposed Project would rely on electric pumps to move the water to the places of use. Since the Proposed Project would not have a significant increase in electrical demand than the existing operations, the Proposed Project would have no adverse impacts to air quality during the operations phase.

	Potentially Significant Impact	Less Than Significant 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

(a-f) A list of 26 special-status species was generated through record searches however, only six special-status species potentially occur in or may be affected by projects in the Famoso quadrangle; an area measuring approximately 70 square miles. Of the six special-status species, only four have been recorded within a 5-mile

radius of the Proposed Project area: Tipton kangaroo rat, San Joaquin kit fox, Tri-colored blackbird and California glossy snake. Biological surveys were conducted for the Proposed Project on November 18, 2016, January 4, 2017, and March 22, 2017. Surveys for the Proposed Project were completed during the appropriate blooming period (February through May) for sensitive plants. No additional botanical surveys are recommended for the Proposed Project based on negative surveys for sensitive species.

***Tipton kangaroo rat** is known to occur in limited scattered areas, primarily in locations east of the California Aqueduct. The species was captured in 1993 along the FKC approximately 1.9 miles north of the pipeline location. No evidence of the kangaroo rat was observed during biological resource surveys. Due to agricultural conversion, development, water diversion, and storage, most of the Proposed Project area is unsuitable for the species. There is very low potential for the species to be present in the Proposed Project area.*

***San Joaquin kit fox** historically occurred throughout the southern portion of the San Joaquin Valley, along the eastern edge of the San Joaquin Valley, and in the dry interior valleys of the Coast Ranges. San Joaquin kit fox has been documented near the east end of the Proposed Project area, approximately 0.4 miles east of Pump Station and Reservoir D. The species was also recorded in a location along the FKC to the north. No evidence of the kit fox was observed during biological surveys. However, on the east end of the Proposed Project area, near the railroad corridor, California ground squirrel burrows could serve as dens and provide a source of prey for the species. The remainder of the Proposed Project area is unsuitable for use by San Joaquin kit fox due to active agriculture. Implementation of Mitigation Measures described in Section E would reduce the potential for impacts to occur to the San Joaquin kit fox. Based on the level of disturbance in areas of potential habitat, and with implementation of protection measures, impacts to the San Joaquin kit fox are not expected from the Proposed Project.*

***Tri-colored blackbird** has not been documented in the Proposed Project site or within a 5-mile radius, however it was recorded in the years 1930 and 1935 nesting in small reservoirs and holding ponds approximately 5.7 miles to the west. Tri-colored blackbird is not expected to become established or to nest in the Proposed Project site based on current land use and a lack of suitable nesting wetland habitat.*

***California glossy snake** is a California Department of Fish and Wildlife Species of Special Concern (SSC) that is protected from take in several counties in California, including Kern County. The California glossy snake has not been recorded within the boundaries of the Proposed Project site; however, the species was historically recorded in locations approximately 0.3 miles to the north and 6.4 miles to the southeast, and in 1935, found dead along Highway 99. Based on current land use and a lack of suitable habitat for the species, California glossy snake is not expected to occur in the Proposed Project site.*

There are no Habitat Conservation plans within the Proposed Project area. No designated critical habitat for federal or state listed species is present in the Proposed Project site. No rare vegetation communities, perennial or intermittent streams, vernal pools, or other sensitive habitats were observed within the boundaries of the Proposed Project site. There are no local polices protecting biological species with the Proposed Project area.

The native ground squirrel was observed during biological surveys. It is common and considered a nuisance to farmers. The California Fish and Game Code classifies ground squirrels as nongame mammals. An owner or tenant can control, in any legal manner, nongame mammals that are injuring growing crops or other property (University of California 2017).

See the Biological Survey Report in Section D.

	Potentially Significant Impact	Less Than Significant 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 as defined in § 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

(a-d) The Proposed Project pipeline would connect to the FKC, an eligible resource under the National Register of Historic Places, approximately 4 feet below ground. The pipeline would connect the FKC to a pumping station. During construction, a portion of the concrete lining of the canal would be damaged and reformed. The proposed construction would involve removing approximately three panels sections of the existing concrete lining of the FKC. A 54-inch pipeline would be installed on the easterly bank of the FKC, then backfilled and compacted. Upon completion, the Contractor would compact around the structure and pour cast-in-place concrete panels to match the existing canal panels. Although the Proposed Project would cause damage to some of the canal, the damage would be temporary, would affect a small section of the 151-mile long canal, and would occur below ground and not be publicly visible when complete. In addition, the damaged portion of concrete panels would be repaired and replaced in-kind. Overall, upon completion of the Proposed Project, the FKC would retain its integrity. The materials, workmanship, and the general physical characteristics that convey the historical significance of the canal would remain in place. The FKC would continue to function as designed. The Proposed Project would be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68) to allow for the use of historic properties provided the features that convey its historical, cultural, or architectural values are restored and reconstructed. GEI Consultants, Inc. surveyed the portion of the FKC in the Proposed Project area on February 14 and March 6. No alterations were noted. Therefore, the Proposed Project would have a less than significant impact to historical resources.

The records search identified three previously recorded cultural resources within the Area of Potential Effect (APE) and three previously recorded cultural resources located within 0.25-miles of the APE. Resources are listed in following tables:

Previously Identified Cultural Resource in the Area of Potential Effects

Resource Number	Trinomial	Description	Age	Notes
P-15-004725		SFP55 Canal	Historic	Earthen canal with concrete pipes, metal hatches, concrete and wood rail trestle for RR over canal, small concrete culvert, two headgates.
P-15-013728	CA-KER-7704/H	Friant-Kern Canal	Historic	Concrete-lined canal, 152 miles long.

P-15-013729	CA-KER-7705/H	Lerdo Canal	Historic	Earthen canal, 10 miles long.

Previously Identified Cultural Resources within the 0.25-Mile Records Search Radius

Resource Number	Trinomial	Description	Age	Notes
P-15-009060		Isolate	Prehistoric	Two flakes: 1 brown chert; 1 fine grained volcanic.
P-15-018880		Coldwater Farms Property	Historic	Commercial property, includes café built in 1955.
P-15-018881		Grewal Property	Historic	Commercial property, includes gas station built in 1950s.

A recent investigation, South San Joaquin Valley Information Center report number KE-04675, was conducted approximately 0.1 mile north of the east end of the Proposed Project for the California Department of Transportation conducted by Far Western Anthropological Group. That investigation included a geoarchaeological extended Phase I component that consisted of 14 trenches. The Proposed Project is in an area considered to have very low sensitivity for buried archaeological deposits (Brady 2014).

The archaeological intensive pedestrian survey for the Proposed Project conducted on February 14 and March 6, 2017 did not identify any previously unrecorded resources. Therefore, there would be no impact to unique archaeological resources.

The Proposed Project area lies exclusively in marine deposits from the Pleistocene Epoch. No unique geologic features occur in the Proposed Project area (California Department of Conservation 2017a). The installation of the buried pipe could impact unknown paleontological resource as the pipe would be installed underground and bore holes up to 14 feet deep to bore underneath the north and south bound lanes of Highway 99 and Burlington North Rail line to reach Pump Station and Reservoir D. The District would implement mitigation measures during construction that would reduce the likelihood of destroying a unique resource or paleontological site (See Mitigation Measures in Section E). Therefore, significant impacts to paleontological resources are not expected.

No human remains have been discovered in the Proposed 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. In the event that human remains are discovered during ground-disturbing activities associated with construction or operation of the Project elements, mitigation measures for proper notification of human remains would be implemented (See Mitigation Measures in Section E). Therefore, impacts, if any, are expected to be less than significant to human remains.

The Cultural Survey Report is kept on file with the District.

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

(a) A request for the Tribal Consultation List and Sacred Lands File search was submitted to the Native American Heritage Commission (NAHC) on February 6, 2017. The NAHC responded on February 9, 2017. In their response letter, the NAHC provided a list of those Native American Tribes with traditional lands or cultural places located within the Proposed Project area. The letter indicated that a search of the NAHC's Sacred Lands File was completed with negative results. The District sent letters to all tribes identified in the NAHC response letter on March 1, 2017. None have requested consultation for tribal resources or interest in the Proposed Project area. Therefore, impacts to Native American resources are not expected.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

(a-e) The Proposed Project does not lie within the Alquist-Priolo Earthquake Fault Zone nor is it in a liquefaction or landslide zone (California Department of Conservation 2017b). The lack of topography in the Proposed Project area precludes landslides.

Soils in the Proposed Project area are comprised of Wasco Sandy Loam, Delano Sandy Loam, and Driver Course Sandy Loam. Soils are deep, well-drained, and typically used for agriculture (U.S. Department of Agriculture 2016). The pipeline would be buried within these soils types which are not expansive and do not create a risk to life or property.

With the implementation of the Dust Control Plan (see Section E), loss of topsoil would be minimized during construction. Operation of the Proposed Project would not substantially increase topsoil loss or create a

potential for soil erosion as the area is in constant agricultural production and topographically flat. Therefore, implementation of the Proposed Project would not have adverse effects to geology and soils.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS (GHG) EMISSIONS – Would the project:				
a) Generate GHG 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 GHGs?	☐	☐	☐	☒

(a-b) The Environmental Protection Agency's (EPA) mandatory reporting threshold for large sources of GHGs is 25,000 metric tons of CO2 emitted annually (EPA 2016). This threshold is approximately the amount of CO2 generated by 5,281 passenger vehicles per year (EPA 2017). Construction for the Proposed Project would take 8 months and utilize typical construction vehicles that include employee work trucks, excavators, a crane, backhoe, loader, and dump trucks. Comparatively, emissions from approximately 10 construction vehicles during Proposed Project implementation would be considerably lower. Because these activities would be similar to existing conditions, for both construction and operation, and will be far below the threshold level of emissions, the Proposed Project GHG emissions would not represent a substantial change and would not conflict with the county or state emissions reduction programs.

	Potentially Significant Impact	Less Than Significant 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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
(a-h) The pipeline would be installed within an existing dirt road adjacent to active agriculture land west of Highway 99. The FKC, adjacent to the Proposed Project, is cement lined and lacks vegetation. Surrounding land uses include a railroad corridor, Highway 99 and overpass, commercial buildings, and industrial developments. The Proposed Project is located away from population centers; involves no hazardous materials; and would rely on electric power rather than liquid fuels. The pump station located adjacent to the				

FKC ROW would be far removed from transportation corridors and the pipeline would be buried; neither would interfere with an emergency plan of any kind. The Project would not expose people to increased risks from wildland fire. There are no wildlands or airports within the Proposed Project area. The Proposed Project would not affect emergency response plans as facilities would not interfere with traffic routes or response vehicle transport. There would be no hazardous materials utilized in construction or operation of Proposed Project.

	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre- existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

(a-j) *The Proposed Project would replace unlined canals with a pipeline. Seepage from the unlined canal is estimated at 1,229 AF/Y. Replacing the unlined canal with a pipeline will reduce groundwater pumping by an approximately equal amount. Therefore, there will be no significant impact to groundwater levels as a result of the Proposed Project.*

There are no streams or rivers within the Proposed Project area. The Proposed Project area is primarily flat and developed with a water conveyance system to deliver water to crops. There is no source of water within the Proposed Project area that would feed surrounding surface waterbodies, therefore, drainage patterns to receiving waters would not be impacted. Stormwater is captured and utilized for irrigation therefore there would be no impact from stormwater runoff.

*The east end of the Proposed Project, approximately one-third of the Proposed Project area, is located within the Federal Emergency Management Agency 100-year flood zone (*FEMA 2017*). The new pump station would be located at the west end of the Proposed Project area. No new structures are proposed in the 100-year flood zone of the Proposed Project. Therefore, no impacts to Proposed Project structures from flooding are expected.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
(a-c) The Proposed Project is located in an area zoned for agriculture and will serve existing farmland. The Proposed Project is located outside of existing communities and is consistent with existing zoning. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans covering the Proposed Project site. There would not be a conflict with conservation plans or land use plans as zoning would not change in the Proposed Project area.				

	Potentially Significant Impact	Less Than Significant 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 Proposed Project is not located in or near an area of known mineral resources.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
(a-f) The Proposed Project is located in an agricultural land use area with no sensitive receptors. There would be no changes to existing operation noise levels. Construction noise would be temporary and occur during the day. Since the Proposed Project is not located near any sensitive receptors, construction noise will not have a significant impact.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
(a-b) The Proposed Project will result in no new housing. In addition, the Proposed Project will result in no new long-term employment. The construction of the Proposed Project would be less than 1 year and the operations will require no additional employees to operate. The expected increase in water due to the reduction of inefficiencies in water delivery would not be allocated for urban growth. There would be no impact to population and housing.				

XV. PUBLIC SERVICES –				
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
(a) The Proposed Project is located in an undeveloped area. The characteristics of the facilities pose no increase in fire risk. In addition, the construction phase will be relatively short with no construction activities occurring at night. The operation phase will require no additional employees to maintain and operate. Therefore, the Proposed Project will demand no additional public services.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION –				
a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
(a-b) No recreational facilities exist in the Proposed Project area. The Proposed Project will not increase the population nor otherwise affect local recreational facilities.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION / TRAFFIC – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
(a-f) The Proposed Project occurs in a rural area with lightly travelled roads. The Proposed Project will result in no new employees or transit routes. Construction traffic will utilize existing public roads to deliver equipment, supplies, and workers to the construction sites. Construction of the Proposed Project will employ only a few individuals at a time. The Proposed Project consists of buried facilities, a pumping station, and therefore, no impact to transportation reliability or access. The pipeline would be tunneled under Highway 99 and the BNSF Railroad and will not impact transpiration in those corridors during construction or operation.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

(a-g) No wastewater treatment facilities occur in the Proposed Project area. Storm water and agricultural runoff currently collects within certain existing ditches and canals. The Proposed Project will result in no new wastewater facilities or wastewater flow. Minimal waste will be generated during construction and no increase in waste production will occur during the operation of the Proposed Project. The Proposed Project will conserve existing groundwater Therefore, the Proposed Project will not place constraints on the local utilities and services that would create adverse impacts. Therefore, there would be no impact to utilities and public services in the area.

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

(a-c) In order to address potentially significant impacts, the District will adopt a mitigation program to lower impacts to a level of non-significance for air, biological and paleontological resources in the Proposed Project area.

Although incremental increases in GHGs and particulate matter would occur during construction of each Proposed Project, these resources would be minor in comparison to normal operations and vehicle traffic in the vicinity. The small number of construction vehicles would not contribute significantly to current atmospheric greenhouse gas concentrations.

Section C. References

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Section D. Technical Memos and Reports

Biological Survey Report

Section E. Mitigation Measures

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

Air Quality

AQ 1 The CWD will develop a Dust Control Plan to submit to the San Joaquin Air District within 10 working days prior to the start of any construction activity. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan.

Biological

BIO 1 An Environmental Awareness Program will be presented to all Project personnel working in the field prior to any construction activity. The program will consist of a presentation in which a qualified biologist (one knowledgeable of endangered species biology and regulatory protections) will explain endangered species concerns and answer questions. The program will address the federally-listed San Joaquin kit fox and Tipton kangaroo rat. Species' biology, habitat needs, status under the Federal Endangered Species Act, and measures being incorporated for the protection of these species and their habitats, consequences of non-compliance, and benefits of compliance will be addressed. Upon completion of training, all Project personnel will sign a form stating that they have received the training and understand the material.

BIO 2 No more than 14 days prior to construction, a qualified biologist will conduct a biological pre-construction survey in uncultivated areas of the Project. If Project activities do not begin within 14 days of pre-construction surveys, then additional pre-construction surveys will be required. Pre-construction surveys will be conducted to determine the potential for listed species in the Action Area or immediate vicinity.

a. If no burrows, dens, or listed species are identified within proposed construction areas, then construction activities may proceed.
b. If burrows or dens that may potentially be used by listed species are found in construction areas during pre-construction surveys, then exclusion zones will be established.
    i. All small mammal burrows that may serve as potential for Tipton kangaroo rat will be avoided by Project activities and a minimum 50-foot no-disturbance area will be maintained.
    ii. If dens are identified during pre-construction surveys that may be used by San Joaquin kit fox, protective exclusion zones will be established prior to Project activities, in accordance with the U.S. Fish and Wildlife Service (USFWS)

Standardized Recommendations for Protection of the Endangered San Juaquin Kit Fox (2011).

iii. If a natal/pupping den is discovered in the Action Area, the USFWS will be notified immediately. Natal/pupping dens may not be destroyed while occupied, and a take authorization/permit is required to destroy these dens even after they are vacated.

iv. If burrow and den avoidance is not feasible, or if exclusion zones cannot be maintained, the USFWS will be notified immediately to discuss federal requirements to proceed with the Project.

v. Potential dens occurring within the footprint of the Project or within 50 feet must be monitored for 3 consecutive days with tracking medium or an infra-red camera beam to determine the current use. If no San Joaquin kit fox activity is observed during this period, the den(s) should be destroyed immediately to preclude subsequent use.

vi. If kit fox activity is observed at the den(s) during this period, the den(s) should be monitored for at least 5 consecutive nights from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den(s) are determined unoccupied may the den(s) be excavated.

vii. Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den(s) during the construction period. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity will cease immediately and monitoring the den as described above should resume. Destruction of the den(s) may be completed when, in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den(s). BIO 3 -Project-related traffic will observe a 20 MPH speed limit in the Project sites, except on county roads and state and federal highways, to avoid impacts to special-status wildlife.

BIO 3 Project site boundaries (limits of disturbance) in uncultivated areas will be clearly delineated by stakes and/or flagging prior to construction. Project activities including vehicle travel and parking will be confined to the Project site.

BIO 4 Construction activities will occur during daylight hours (no work will occur 30 minutes before sunrise or 30 minutes after sunset).

BIO 5 The District will implement the following measures to protect San Joaquin kit fox (and Tipton kangaroo rat):

a. To prevent entrapment of San Joaquin kit fox or other animals during construction, all excavated steep-walled trenches 2 feet or more in depth should be covered at the close of each working day by plywood or similar material. For trenches that cannot be closed daily, one or more escape ramps constructed of earth fill or wooden planks should be

installed. Ramps should be installed at no less than 45-degree angles. All covered or uncovered excavations shall be inspected at the beginning, middle, and end of each work day and non-work day.

i. Before such trenches are filled they should be thoroughly inspected for trapped animals.

ii. If at any time a trapped or injured San Joaquin kit fox, Tipton kangaroo rat, or other listed animal is discovered, Project implementation will stop, and escape ramps or structures will be installed immediately to allow the animal(s) to escape. If any listed species is discovered that is unable to escape voluntarily, the USFWS will be contacted for guidance.

a. All pipes, culverts, or similar structures stored at the Project site overnight having a diameter of 4 inches or greater will be inspected thoroughly for wildlife species before being buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight will be capped. If during Project implementation a wildlife species is discovered inside a pipe, that section of pipe will not be moved or, if necessary, moved only once to remove it from the path of Project activity, until the wildlife species has escaped.

b. The District should designate a Project representative as the contact for any employee or contractor who finds a dead, injured, or entrapped San Joaquin kit fox or Tipton kangaroo rat. If a listed species is found dead, injured, or entrapped in the Project site, the USFWS will be notified immediately

BIO 6 All food-related trash items such as wrappers, cans, bottles or food scraps generated during Project activities will be disposed of only in closed containers and removed daily from the Project site. No deliberate feeding of wildlife will be allowed.

BIO 7 To prevent harassment or mortality of wildlife species via predation, or destruction of their dens or burrows, no domestic pets will be permitted on the Project site.

BIO 8 Hazardous materials, fuels, lubricants, and solvents that spill accidentally during Project-related activities will be cleaned up and removed from the proposed Project site as soon as possible according to applicable federal, state and local regulations.

BIO 9 All sightings of listed species will be reported immediately to the USFWS.

Cultural

CR 1 In the event that human remains are discovered during ground-disturbing activities associated with construction or operation of the Project elements, an appropriate representative of the affiliated Native American Tribe and the County Corner shall be informed and consulted as required by law.

Paleontological

PALEO 1 The following mitigation measures would be implemented during construction to reduce potential impacts to paleontological resources.

- Workers would be provided paleontological sensitivity training prior to construction.
- A discovery of a paleontological specimen during any phase of the Project would result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist.
- A significant discovery may result in a paleontological monitor for the remaining construction phases.

Section F. List of Preparers

Ginger Gillin – Project Manager. GEI Consultants, Inc.

Stephanie Breeden – Environmental Scientist. GEI Consultants, Inc.