

# RECLAMATION

*Managing Water in the West*

**Final Environmental Assessment/Initial Study**

## **County Service Area 34 Winchell Cove Pipeline Project**

**EA/IS-10-045**



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region  
South-Central California Area Office  
Fresno, California**



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**April 2013**

## **Mission Statements**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to 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

AB	Assembly Bill
<u>AIA</u>	<u>Air Impact Analysis</u>
<u>AMSL</u>	<u>Above mean sea level</u>
APE	Area of Potential Effects
ARB	Air Resources Board
AWWA	American Water Works Association
BIA	Bureau of Indian Affairs
BMP	Best Management Practices
B.P.	Before Present
BRM	Bed Rock Mortars
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalFire	California Department of Forestry and Fire Prevention
CAP	Criteria Air Pollutants
CARB	California Air Resources Board
CBC	California State Building Code
CCAA	California Clean Air Act
<u>CDC</u>	<u>California Department of Conservation</u>
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic-feet per second
CHP	California Highway Patrol
CNDDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
<u>County</u>	<u>Fresno County</u>
CRHR	California Register of Historic Places
CSA	County Service Area
CTS	California Tiger Salamander
CVP	Central Valley Project
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	decibel
DPM	Diesel Particulate Matter
<u>DPS</u>	<u>Distinct Population Segment</u>
DWR	Department of Water Resources
EA	Environmental Assessment
EDR	Environmental Data Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

EO	Executive Order
EPA	Environmental Protection Agency
FCFPD	Fresno County Fire Protection District
FEMA	Federal Emergency Management Act
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FPT	Fluted Point Tradition
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act
GHG	greenhouse gases
gpm	gallons per minute
IBC	International Building Code
IS	Initial Study
ITA	Indian Trust Assets
Ldn	Day-Night Average Sound Level
Leq	Noise Equivalence Level
<u>M&amp;I</u>	<u>Municipal and Industrial</u>
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Decendent
MLSRA	Millerton Road State Reclamation Area
MMI	Modified Mercalli Intensity
MNT	Millerton New Town
NAAQS	National Ambient Air Quality Standards
NACE	National Association of Corrosion Engineers
NAGPRA	Native American Graves Protection and <del>Reparation</del> <u>Repatriation Act</u>
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NWI	<u>National Wetland Inventory</u>
O <sub>3</sub>	ozone
OHWM	Ordinary High Water Mark
O & M	Operate and Maintain
Pb	Lead
PCC	Portland cement-concrete
<u>PCE</u>	<u>primary constituent elements</u>
P-C	Production Consumption
PG & E	Pacific Gas & Electric

PM	particulate matter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
<u>PPM</u>	<u>parts per million</u>
PRC	Public Resources Code
<u>PVC</u>	<u>polyvinyl chloride pipe</u>
<u>Reclamation</u>	<u>U.S. Bureau of Reclamation</u>
ROG	reactive organic gasses
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
Service	U.S. Fish and Wildlife Services
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJKF	San Joaquin Kit Fox
SJVAB	San Joaquin Valley Air Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
<u>SLF</u>	<u>Sacred Land Files</u>
SO <sub>2</sub>	Sulfur dioxide
SSJVIC	Southern San Joaquin Valley Information Center
SWPPP	Storm Water Pollution Protection Plan
SWRCB	State Water Resources Control Board
<u>SWTP</u>	<u>Surface Water Treatment Plant</u>
TDS	total dissolved solids
TMDL	total maximum daily loads
TMR	Table Mountain Rancheria
TSS	total suspended solids
UCMP	University of California Museum of Paleontology
URBEMIS	Urban Emission model
U.S.	United States
Corps	U.S. Army Corps of Engineers
U.S. DOI	U.S. Department of the Interior
U.S.C	U.S. Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
<u>VPFS</u>	<u>Vernal Pool Fairy Shrimp</u>
WPLT	Western Pluvial Lakes Tradition
WST	Western Spadefoot Toad

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# Section 1 Purpose and Need/Introduction

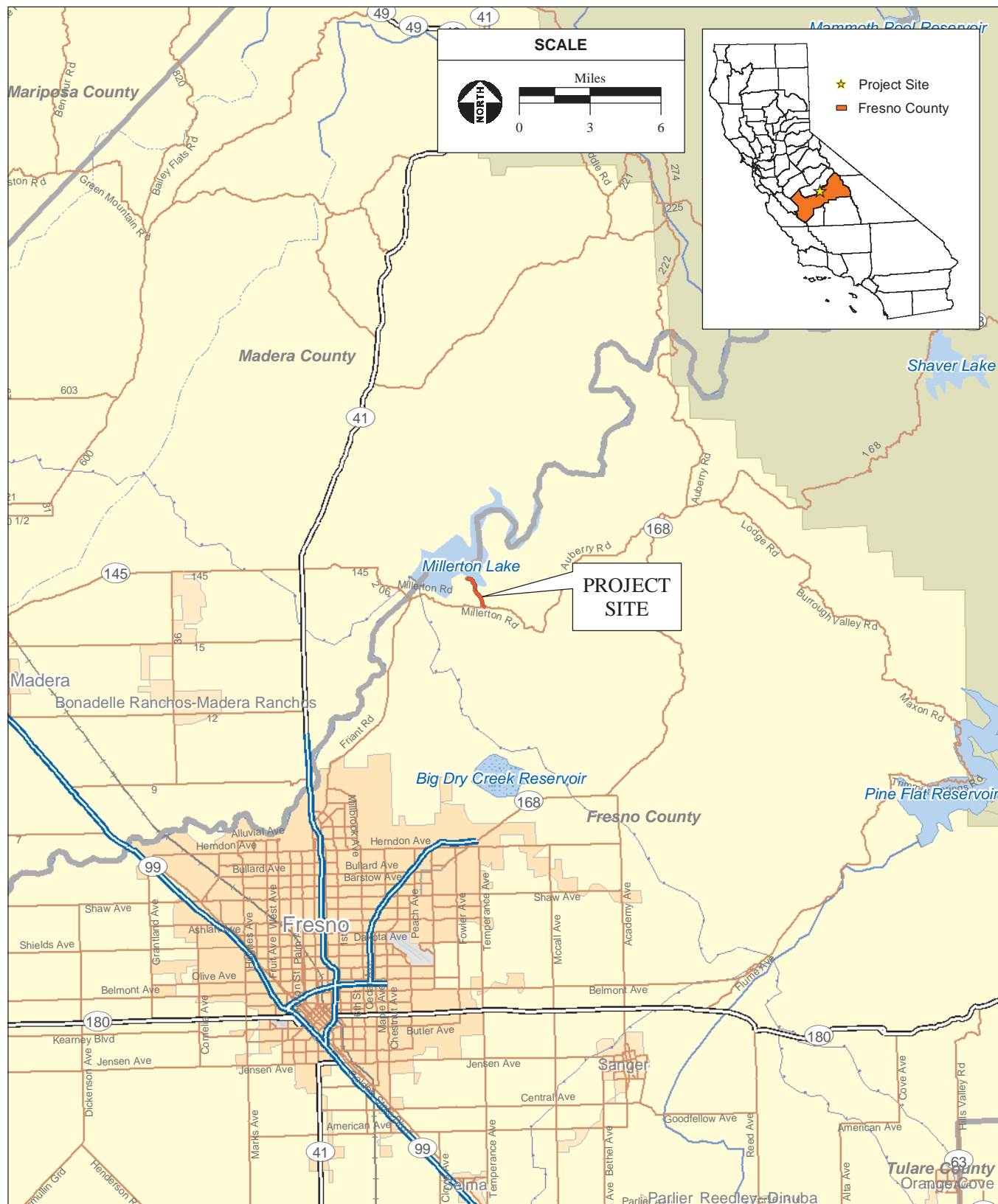
This Final Environmental Assessment/Initial Study (EA/IS) has been jointly prepared by the Bureau of Reclamation (Reclamation) as the lead federal agency and Fresno County (County) as the lead state agency to fulfill the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 et seq.) and the National Environmental Policy Act (NEPA) (42 U.S.C. §4321-4370). The focus of the NEPA environmental analysis within this EA/IS is ~~the~~ Reclamation's approval of a license to the County for the construction, operation and maintenance of a proposed water pipeline within lands owned by Reclamation (refer to **Figures 1, 2, and 3**). The focus of the CEQA environmental analysis within this EA/IS includes the entire scope of the Proposed Project described within **Section 2.0**.

While CEQA requires that a determination of significant impacts be stated in an IS, NEPA does not require this for an EA. Under NEPA, significance is used to determine whether an Environmental Impact Statement (EIS) is required. An EA is the basis for developing information on which to determine significance, such as the context of the intensity of the impacts, while a separate document, the Finding of No Significant Impact (FONSI), documents when there are no significant impacts. If potentially significant impacts are identified then an EIS must be prepared.

A Draft EA/IS was prepared for the Proposed Project and circulated for public review and comment. The 30-day public comment period for the Draft EA/IS began on July 18, 2011 and ended on August 18, 2011. Reclamation and the County received three written comment letters during the comment period for the Draft EA/IS. **Appendix E** contains the comment letters received during the public review period and responses thereto. Any changes made to the Final EA/IS since the public review period are indicated in underline (added text) and strike-out (~~deleted text~~).

## 1.1 Background/Project Description

Millerton Lake was created as a result of construction of Friant Dam on the San Joaquin River, which is owned and operated by Reclamation. The Millerton Lake State Recreation Area (MLSRA) is maintained and operated by the California Department of Parks and Recreation on federal lands owned by Reclamation. In November of 1988, Reclamation entered into an agreement with the County and issued a license allowing the County to operate and maintain (O&M) a pump station, water pipeline, electrical conduits, transformers, and related electrical appurtenances located at Winchell Cove within the MLSRA. These facilities, which have been in operation since 1990, transport water to be used by County Service Area (CSA) 34 for domestic and irrigation purposes. The water transported through these facilities is Central Valley Project (CVP) water from Millerton Lake, and is available to the County through an exchange with the Arvin-Edison Water Storage District or other Friant Division CVP contractors.



SOURCE: ESRI Data, 2007; AES 2010

Winchell Cove Pipeline Project / 207518 ■

**Figure 1**  
Regional Location





SOURCE: "Millerton Lake West, CA", and "Friant, CA" USGS 7.5 Minute Topographic Quadrangles T11S R21E, Sections 2,3,10,11 Mt. Diablo Baseline and Meridian; AES, 2010

Winchell Cove Pipeline Project / 207518 ■

**Figure 2**  
Site and Vicinity







## **CSA 34 Water System**

CSA 34 encompasses the Millerton New Town Infrastructure Plan area. It is located on the north and south side of Millerton Road approximately 1.5 miles east of the community of Friant. The area includes approximately 1,903 acres.

Raw water is drawn from Millerton Lake by ~~two~~ one of four pumps with electric motors on a platform submerged on the lake bottom. The pumps feed water through an attached check valve and manifold into a single 14-inch pipeline, which runs approximately 42 inches below the lake bottom, for about 200 feet before transitioning into a 12 inch pipeline. The existing pipeline generally follows the lake's shoreline to Winchell Cove Road, where it extends through an existing public utility easement located within land held in federal trust for the Table Mountain Rancheria to Millerton Road, then east on the north side of Millerton Road to the Brighton Crest development. The pipeline discharges into, and terminates at either a storage pond on the golf course for irrigation use as well as to a raw water storage tank that connects to or the Surface Water Treatment Plant (SWTP) and potable water storage tank, all of which are located at the Brighton Crest community. In 2008, the annual water transmitted through the water system was 179,620,000 gallons, or approximately 492,110 gallons per day. The water is used by Brighton Crest community residents and the Eagle Springs Golf and Country Club.

## **Phase I of the Millerton Lake Pumps and Pipeline Improvement Project**

The original lake pumps and pipeline were installed in 1989. In May 2009, one of the two original lake pumps failed, prompting the County to expedite a proactive solution to ensure that the CSA 34 water system would be able to continue providing water to its service area in the short- and long-term should a system failure occur again in the future. The County's Millerton Lake Pumps and Pipeline Improvement Project (Project) generally consisted of pump replacement, auxiliary back-up pumps, emergency pump connection, and a 12-inch parallel pipeline. During the summer of 2010, a check valve failed presumably due to excessive wear and tear caused by near-constant single pump operation. The County had to order a restricted use mandate on the Brighton Crest residents during peak summer use to ensure that the existing system could provide enough water during repair. The County was concerned that the one remaining pump would fail and leave the residents without water. As a result, Reclamation allowed the County to replace both existing pumps and motors, add two new auxiliary pumps for back-up, and install an emergency "T" connection on the pipeline outside the lake during renewal of the license agreement. (The new pumps have not increased the overall capacity of the system as they are intended to provide back-up to the existing pumps in the event of failure and provide alternatives to lessen wear on any one pump.) The 12-inch parallel pipeline would be constructed at a later date since it was still functional at the time and the risk of the one remaining pump failing was too great. Thus, the Project was broken up into Phases I and II. The environmental effects from Phase I of the Project have been addressed in the following documents:

- Millerton Lake State Recreation Area Winchell Cove Pumping Station and Water Line License Renewal , NEPA Categorical Exclusion Checklist, Bureau of Reclamation, June 24, 2009 (CEC-09-16)

- CSA 34 Millerton Lake Pumps and Pipeline Improvement Project Phase I, CEQA Categorical Exemption, County of Fresno, September 24, 2009 (ER 6135)

## 1.2 Purpose and Need/Project Objectives

~~The proposed parallel raw water pipeline would keep flow velocities at a level that will not cause excessive pipe wear, head loss, or water hammer in the system. Continued use of the existing pipeline could cause damage to the newly replaced pumps and result in large energy demands due to inefficient operation of the pumps and motors. Continued use of the existing pipeline could result in major damage to this facility in the long term, resulting in substantial costs associated with repair and property damages. The Project is needed to~~The purpose/objective of the Proposed Action is to provide CSA 34 water users with a contingency plan in the event of an emergency and system malfunction, provide system flexibility, improve water supply reliability, and provide more efficient operations in the delivery of raw water to the existing users within CSA 34. In addition, the Project would provide CSA 34 water users with a contingency plan in the event of an emergency and system malfunction. An engineering memorandum outlining the need for the Project is provided within**Appendix D**proposed parallel raw water pipeline would keep flow velocities at a level that will not cause excessive pipe wear, head loss, or water hammer in the system. It is the objective of both Reclamation and the County to implement the Proposed Action in a manner that minimizes potential adverse environmental effects.

As described above, the SWTP and the Eagle Springs Golf and Country Club are supplied raw water through a single 12-inch ductile iron pipeline. The U.S. Environmental Protection Agency (EPA) estimates a useful life of 35 to 50 years for all transmission mains. As detailed within the January 2012 engineering memorandum (Quad Knopf, Inc., 2012) provided within **Appendix D** of this Final EA/IS, the existing pipeline is likely at or beyond the mid-point of its useful life. The integrity of the portion of the existing pipeline beneath Millerton Lake is inherently reduced because pipelines under water are more likely to suffer corrosion. The risk of corrosion is exacerbated by the lack of a protective polyethylene wrap, the installation of which is currently standard practice to minimize external corrosion. The integrity of the existing pipeline is further reduced from damage likely caused by stress from the damaged support structures of the original platform that held the pumps.

Continued use of the existing pipeline could result in major damage to this facility in the long-term, resulting in substantial costs associated with repair and property damages. Additionally, continued use of the existing pipeline could cause damage to the newly replaced pumps and result in large energy demands due to inefficient operation of the pumps and motors. Any failure of the CSA 34 water system could compromise the County's ability to provide safe and reliable pumping and conveyance capability to its customers in accordance with California Department of Public Health requirements. At present, there are no contingencies if the pipeline fails. Failure of the existing pipeline would expose the County to potential liability arising from water quality and sanitation issues.

## 1.3 Scope

The Council on Environmental Quality (CEQ) regulations provide a definition of “scope” that instructs agencies to consider three types of actions (connected, cumulative, similar), and three types of impacts (direct, indirect, and cumulative) within EISs (40 California Code of Federal Regulations (CFR) 1508.25). CEQA Guidelines Section 15165 states: “Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one Environmental Impact Report (EIR) for all projects, or one for each project, but shall in either case comment upon the cumulative effect.” The concept of “independent utility” examines the inter-relationship and dependency issue of actions. Independent utility exists for a project provided that the project under consideration is not dependant on subsequent phases or approvals. CEQ uses the term “unconnected single actions” to describe this concept. If an action 1) does not automatically trigger other actions which may require environmental analysis, 2) does not require that other actions are taken previously or simultaneously in order to proceed, and 3) is not an interdependent part of a larger action and depend on the larger action for its justification, then the action demonstrates “independent utility” and the scope of the environmental analysis may be for the direct, indirect, and cumulative impacts of that action only (40 CFR 1508).

### 1.3.1 Project Scope

Reclamation’s approval is limited to the issuance of a license to the County for the construction, operation, and maintenance of the proposed parallel pipeline (Proposed Action), and is the focus of the NEPA environmental analysis within this EA/IS. Similarly, the County’s approval includes the remaining components of the Project as described within **Section 2.0**, and is the focus of the CEQA environmental analysis within this EA/IS. For the purposes of this EA/IS, the remaining components of the Project and the Proposed Action would be used interchangeably.

The Proposed Action is considered an improvement/maintenance project that is needed under existing conditions to serve existing demands in CSA 34. While the infrastructure may be utilized to provide water supply to future developments within the CSA 34 service area, specifically the Millerton New Town Specific Plan which is currently undergoing NEPA review by Reclamation for the approval of long-term water transfers to serve the development, no changes to water delivery or permitted capacity of the CSA 34 water system would result from the Proposed Action. Furthermore, as described in the engineering memorandum provided as Appendix D, the proposed parallel pipe cannot, by itself, be growth-inducing due to other constraints at the downstream end of the system including the capacity of the SWTP and the single pipeline from Millerton Road to the SWTP. The Proposed Action/Project analyzed in this EA/IS is a distinct undertaking with individual utility. Reclamation and the County can approve their respective actions without committing to approval of future developments that may utilize water from the CSA 34 system. As a result, the Project and the Millerton New Town Specific Plan Development are two separate projects under CEQA and NEPA, and are properly analyzed in separate environmental documents.

Because the Project is needed under existing conditions, it represents a “stand-alone” action and demonstrates “independent utility.” Potential cumulative effects of the Proposed Action when

combined with reasonably foreseeable development in the project area are described in accordance with NEPA and CEQA requirements within **Sections 3 and 4** of this EA/IS.

## **1.4 Project Location and Setting**

The Project is located within the MLSRA, in Fresno County, California (**Figure 1**). The MLSRA is located approximately 17 miles northeast of the City of Fresno, and 19 miles east of the City of Madera. The approximately 12.26-acre project site is located within Township 11 South, Range 21 East, Sections 3 and 10 of the Friant United States Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) and Township 11 South, Range 21 East of the Millerton Lake West USGS quad. The centroid of the project site is 36° 59' 25.22" North, 119° 39' 27.8" West. A topographic map and an aerial photograph of the project site are shown in **Figures 2 and 3**, respectively.

## **1.5 Potential Environmental Issues**

This EA/IS will analyze the affected environment of the Proposed Action in order to determine the potential direct, indirect, and cumulative impacts to the following resources:

- Water Resources
- Land Use
- Biological Resources
- Cultural Resources
- Socioeconomics / Environmental Justice
- Air Quality
- Global Climate
- Indian Trust Assets
- Executive Order - Indian Sacred Sites
- Aesthetics
- Agricultural and Forest Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation / Traffic
- Utilities and Service Systems

## 1.6 Required Permits and Approvals

~~If determined to be appropriate by the lead agencies, t~~The following permits and approvals ~~would~~will be required for implementation of the Proposed Project:

### Bureau of Reclamation

- Adoption of a FONSI and Mitigation and Monitoring Plan for the Proposed Action.
- Issuance of a license to the County for the construction, operation, and maintenance of the proposed facilities within land owned by Reclamation.

### Fresno County

- Adoption of a Mitigated Negative Declaration and Mitigation Monitoring Plan for the Proposed Project.

### Other Approvals

- Section 404 Permit from U. S. Army Corps of Engineers (Corps) for potential impacts to wetlands and waters of the United States (U.S.) resulting from installation of pipeline within the Millerton Lake bed.
- California Department of Fish and Game (CDFG) Streambed Alteration Agreement for installation of the pipeline within the Millerton Lake bed.
- Regional Water Quality Control Board (RWQCB) Section 401 Certification.
- Consultation with the U.S. Fish and Wildlife Service (Service) pursuant to Section 7 of the Federal Endangered Species Act (FESA) regarding potential impacts to federally-listed special status species resulting from the Proposed Action.
- Consultation with the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act regarding potential impacts cultural resources resulting from the Proposed Action.
- Consultation with the CDFG for impacts to state listed special status species.
- Encroachment Permit from the State of California, Department of Parks and Recreation, for construction in Winchell Cove Road outside of Reclamation land.
- The San Joaquin Valley Air Pollution Control District Air Impact Analysis (AIA) Application.

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## Section 2 Alternatives Including the Proposed Action

This EA/IS considers two possible actions: the No Action Alternative and the 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 human environment. Alternatives to the proposed pipeline alignment that were considered, but eliminated from detailed evaluation are discussed in **Section 2.3.** ~~as these alternatives would require extending through previously undisturbed lands, and thus would not meet the project objective to minimize environmental impacts. Additionally, because the purpose and need for the Project is to improve the operational efficiency of the existing CSA 34 water supply infrastructure, the current alignment is necessary to facilitate the laterals proposed between the existing and proposed pipeline to ensure even pressure throughout the system.~~

### 2.1 No Action Alternative

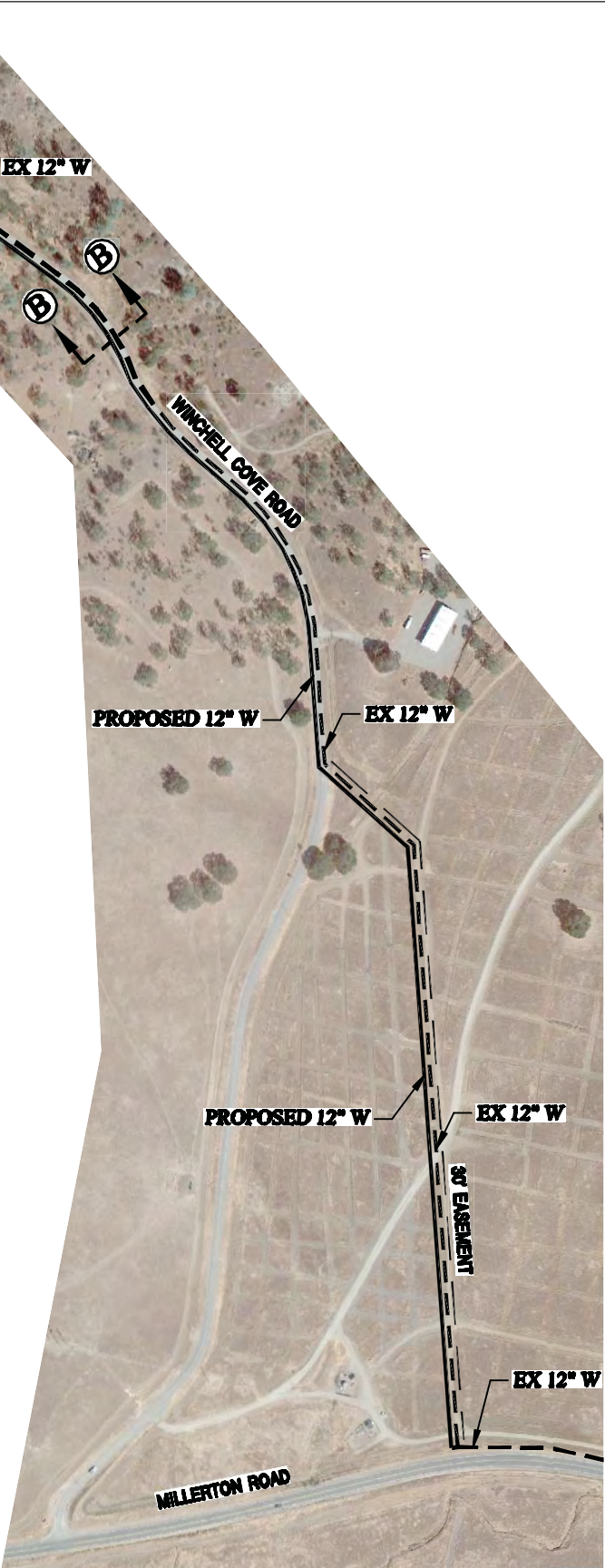
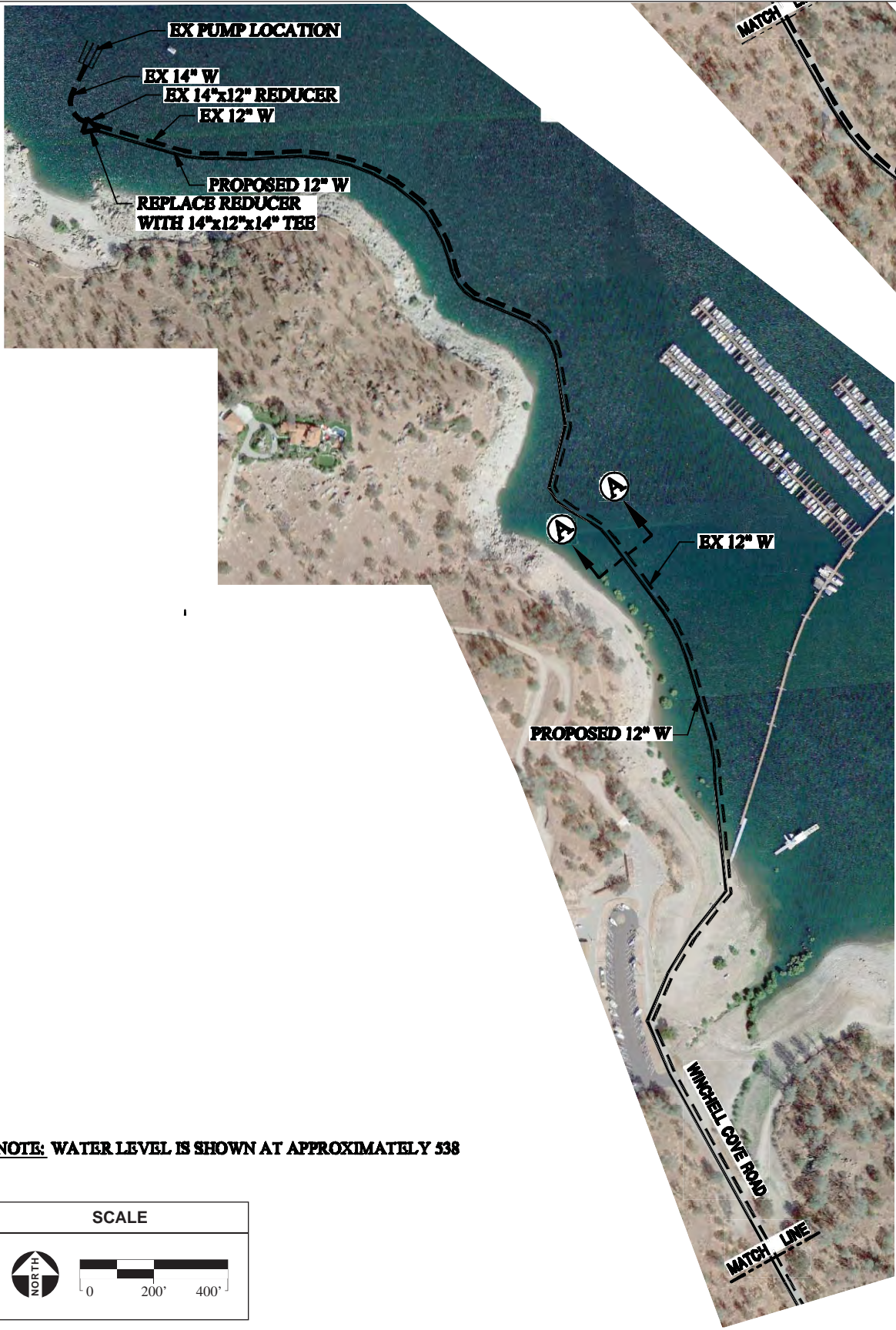
Under the No Action Alternative, the 12-inch parallel pipeline would not be developed and the existing CSA 34 pipeline would continue to operate under existing conditions. Under the No Action Alternative, ~~C~~continued use of the existing pipeline ~~at full design capacity under current conditions~~ is likely to result in significant damage to this facility in the long-term, resulting in system failure, interrupted water service to existing water users within CSA 34 and substantial costs associated with repair and property damages.

### 2.2 Proposed Action

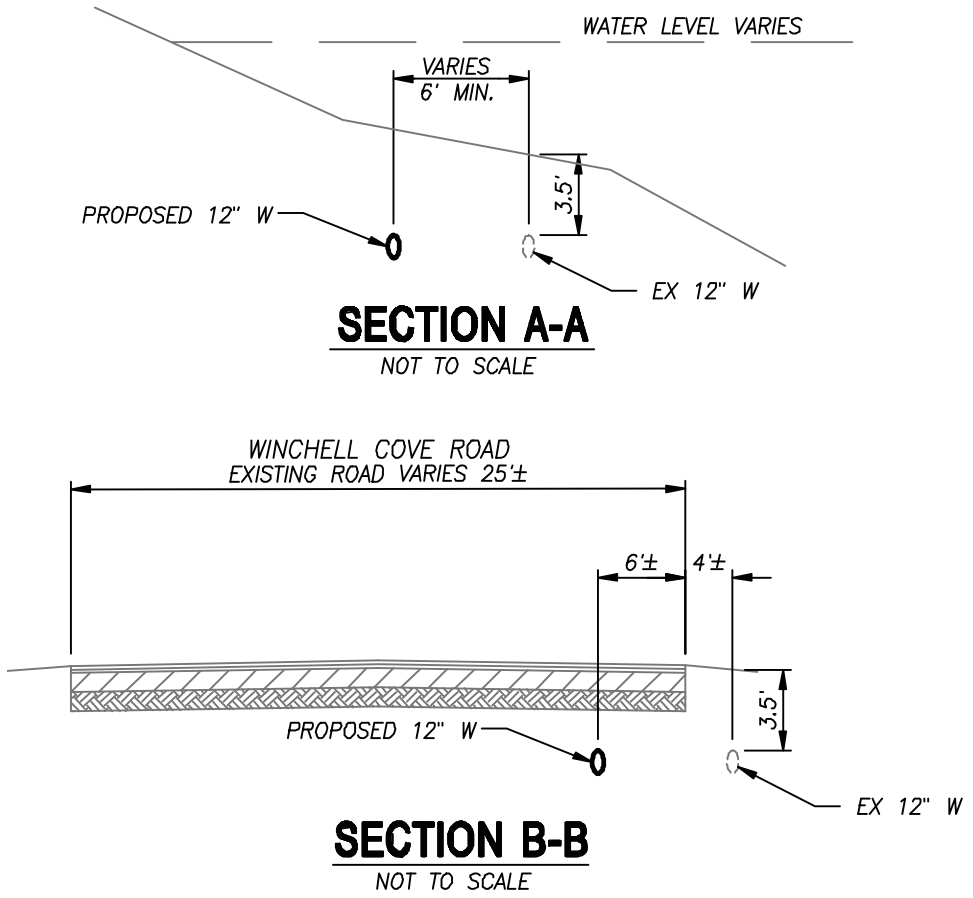
The Proposed Action is intended to build off of Phase I of the CSA 34 Millerton Lake Pumps and Pipeline Improvement Project and involves the construction of a parallel pipeline extending from the Winchell Cove submerged pump station. The new pipeline would branch from where the existing pipeline reduces from 14 to 12 inches or at the blind flange on either side of the platform, and would run parallel with the existing CSA 34 12-inch pipeline. From the pumps, the pipeline would extend for approximately 0.56 miles through the Millerton Lake bed to the Winchell Cove Marina. From the marina, the pipeline would be installed within the County's existing CSA 34 pipeline easement, extending for approximately 0.5 miles south within the Winchell Cove Road paved right-of-way, where it would transition through a public utility easement located within land held in federal trust for the Table Mountain Rancheria for approximately 1,600 feet in a southeasterly direction and terminate just north of Millerton Road (**Figure 4**).

The proposed pipeline would have a diameter of 12 inches, and a capacity of up to 2,500 to 3,000 gallons per minute (gpm). The proposed pipeline would be constructed of ductile iron or welded steel for the first one-half mile and then transition to 12-inch polyvinyl chloride (PVC) pipe for the remaining distance. Where appropriate, cross connections with the existing pipeline would be installed to ensure even pressure and travel velocities in both pipelines. A tee valve connection, meter, and blind flange north of Millerton Road would connect Table





## VICINITY MAP





Mountain Rancheria to the raw water system, consistent with the Millerton New Town Infrastructure Plan (Rabe Engineering, 2000). The Proposed Project would not adjust the CSA 34 service area boundary, nor increase water supply capacity over current water rights.

The Proposed Action would require Reclamation's approval of a license agreement with the County to construct, operate, and maintain the proposed pipeline within lands owned and managed by Reclamation, which includes the portion of the pipeline that extends from the pumps to the marina. The extent of Reclamation's license approval is indicated in **Figure 3**.

### **2.2.1 Staging**

The proposed construction staging area consists of a gravel parking lot and storage yard located at the Winchell Cove Marina. This area would be utilized to store pipe and other materials, construction equipment, and other necessary items. This area has been heavily disturbed and sensitive biological resources are not present.

### **2.2.2 Construction Timeline**

Construction is anticipated to begin in summer ~~2014~~2013, and would last for approximately up to 6 months. Construction activities would be limited to the hours of 6 a.m. to 9 p.m. Monday through Friday, and 7 a.m. to 5 p.m. on Saturday or Sunday, in accordance with the Fresno County noise ordinance. To the extent feasible, construction activities within the ordinary high water mark (OHWM) of Millerton Lake would be ~~coordinated~~scheduled to coincide with periods when water levels in Millerton Lake are below the project footprint.

### **2.2.3 Construction Methods**

Project components would be designed and constructed in accordance with applicable provisions of the American Water Works Association (AWWA) Standards, California State Building Code (CBC), and the International Building Code (IBC). Components of the Proposed Action would require general construction activities including grading, excavating, trenching, pipe installation, placement of backfill, and asphalt patching.

#### ***Trenching***

Pipelines would be constructed using open cut trenching. Open cut trenching requires clearing of the pipeline alignment, saw cutting pavement where necessary, excavation of the trench, pipeline installation, backfill operations, and surface restoration (described below).

Estimated trench width for a 12-inch-diameter pipeline would be approximately 24 inches and the trench depth would vary as needed with a minimum of 48 inches of cover from finished grade. Depending on site conditions or terms of the encroachment permit for construction with Winchell Cove Road, trenches would be secured at the end of each workday by either covering with steel plates, backfill material, or installing barricades to restrict access.

The Proposed Action impact area is limited to 25 feet on either side of the proposed pipeline alignment, for a total construction corridor width of 25 feet at any point in the alignment. From Millerton Lake, the pipeline would be located entirely within the paved Winchell Cove Road until it reaches the portion of the County easement that extends through non-native grassland.

One lane of through traffic would remain at all times. Vehicles would remain on the roadways and road shoulders.

### **Surface Restoration Techniques**

Surface restoration techniques would be employed after segments of pipeline construction are completed. All surfaces and roadways would be restored to pre-project conditions. This would include restoring unpaved areas by planting grasses and native vegetation, and repaving of roadways. If required by the encroachment permit for construction within the Winchell Cove right-of-way, an asphalt overlay, slurry seal, or chip seal may be utilized.

### **2.2.4 Equipment and Materials**

Energy efficient construction equipment would be utilized to the extent feasible. The following equipment may be utilized during construction of the project:

Pavement saw	Flat-back delivery truck
Jack hammers	Concrete trucks
Excavators	Sweepers
Front-end loaders	Road grader
10-wheel dump trucks	Paving equipment: back hoe, asphalt hauling trucks,
Crane	compactors, paving machine, rollers
Bulldozers	Concrete pumper trucks
Water truck	Welding trucks
Trench shields	Side boom pipe handler tractor
Air compressors	Earth mover

### **2.2.5 Operation and Maintenance Activities**

Periodic maintenance of the proposed pipeline and appurtenant structures would be required after the Project is operational. Piping, valves, and appurtenant structures would be checked and maintained, and replaced as necessary. Maintenance activities are not expected to increase over current levels for the existing CSA 34 pipeline, and may decrease due to more efficient operation.

### **2.2.6 Environmental Protection Measures**

The County would implement the environmental protection measures listed in **Table 2-1** to reduce environmental consequences associated with the Proposed Action, these measures are expanded in **Sections 3.0** and **4.0** under their respective ~~issue~~-resource areas. Environmental consequences for resource areas assume the measures specified would be fully implemented.

**TABLE 2-1**  
Environmental Protection Measures

<b>Resource</b>	<b>Protection Measure</b>
Water Resources	<p><b>WR-1:</b> Construction contractors shall comply with the State's National Pollution Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). The Central Valley Regional Water Quality Control Board (CVRWQCB) requires that all construction sites have adequate control measures to prevent the discharge of sediment and other pollutants to streams. To comply with the permit, <del>the Applicant</del> <u>a qualified Stormwater Pollution Protection Plan (SWPPP) developer</u> will file a Notice of Intent (NOI) with the CVRWQCB and prepare a <del>Stormwater Pollution Protection Plan (SWPPP)</del> prior to construction. A copy of the SWPPP must be obtained and remain onsite during construction activities. Control measures are required prior to and throughout the rainy season. Water quality Best management Practices (BMPs) to be identified in the SWPPP are listed in <b>Section 3.1.3</b>.</p>
Biological Resources	<p><b>BIO-1:</b> A Biological Opinion with an incidental take statement <del>shall be</del> <u>was</u> obtained from the Service for impacts to California Tiger Salamander (CTS). <u>BMPs, proposed conservation measures, reasonable and prudent measures, and terms and conditions identified within the Biological Opinion, including the purchase of preservation credits from an approved conservation bank, shall be implemented. The incidental take statement shall be submitted to the CDFG to determine whether the implementation of the protective and mitigation measures would avoid take of CTS, as defined under California Endangered Species Act (CESA). If the CDFG determines that take as defined under CESA would likely occur, the applicant shall obtain and an Incidental Take Permit shall be obtained from the CDFG for impacts to California Tiger Salamander (CTS) prior to construction. All conditions of the statement and permit, if required, including preservation and compensatory measures required by Service and by CDFG, shall be implemented. Future maintenance and operations activities for the Proposed Action shall be covered within the statement and/or permit. At a minimum, the proposed mitigation measures to be implemented to compensate for take of CTS are listed in Section 3.3.3.</u></p> <p><b>BIO-2:</b> Mitigation measures shall be implemented to avoid temporary impacts to potential habitat for Western Spadefoot Toad (WST) and American badger as listed in <b>Section 3.3.3</b>.</p> <p><b>BIO-3:</b> Mitigation measures shall be implemented to avoid impacts to potential nesting habitat for Swainson's hawk as listed in <b>Section 3.3.3</b>.</p> <p><b>BIO-4:</b> Mitigation measures shall be implemented to avoid project-related impacts to nest sites for birds of prey and migratory birds as listed in <b>Section 3.3.3</b>. These measures would also mitigate for impacts to roosting bats.</p> <p><b>BIO-5:</b> Conservation measures shall be implemented to avoid potential short-term adverse effects to San Joaquin Kit Fox (SJKF) in accordance with the <i>U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance</i> (2011) (Recommendations) for linear projects as listed in <b>Section 3.3.3</b>.</p> <p><b>BIO-6:</b> Mitigation measures shall be implemented to avoid potential short-term adverse effects to waters of the U.S. as listed in <b>Section 3.3.3</b>.</p>
Cultural Resources	<p><b>CR-1:</b> In the unlikely event that previously unknown cultural materials, such as flaked stone, groundstone, or historic debris are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop treatment measures in consultation with appropriate agencies in accordance with 36 CFR Part 800.13. In the case of such a discovery, Reclamation's archaeologists shall be notified and be given an opportunity to assess the find prior to work starting again in the immediate vicinity of the find.</p>

Resource	Protection Measure
	<p><b>CR-2:</b> If human remains are encountered on non-Federal and non-Tribal lands, work shall halt in the vicinity of the discovery and the Fresno County Coroner shall be notified immediately. At the same time, an archaeologist shall be contacted to evaluate the find. If the Coroner determines that the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this determination. The Most Likely Descendant (MLD) of the deceased will be contacted by the <u>Native American Heritage Commission (NAHC)</u>, and work will not resume until the MLD has made a recommendation for the treatment of, with appropriate dignity, the human remains and any associated grave goods, as provided in <u>Public Resources Code PRC</u>, Section 5097.98. Work may resume if the NAHC is unable to identify an MLD or the descendant fails to make a recommendation within 48 hours.</p> <p><b>CR-3:</b> Pursuant to Reclamation Directives and Standards LND 07-01, the inadvertent discovery of human remains on Reclamation land shall require immediate oral notification of the find to Reclamation cultural resources staff, as well as a written report of the discovery within 48 hours. Additionally, activity in the area shall cease and the find stabilized and protected until authorization to proceed is provided by Reclamation. Such discoveries require compliance with all appropriate Federal cultural resources laws and may require further Section 106 consultation. If the human remains are determined to be Native American, the discovery shall be handled in accordance with Native American Graves Protection and <u>Reburial-Repatriation Act (NAGPRA)</u> regulations (43 CFR Part 10).</p> <p><b>CR-4:</b> If human remains are encountered on Tribal lands, work shall halt in the vicinity of the find and the Fresno County Coroner, Reclamation archaeologist(s), and the Table Mountain Rancheria's Cultural Resources Director shall be notified immediately, pursuant to 36 CFR Part 800.13 of <u>National Historic Preservation Act (NHPA)</u>, Post-Review Discoveries, and 43 C-F-R-§ 10.4 (2006) of NAGPRA, Inadvertent Discoveries. No further ground disturbance shall occur in the vicinity of the find until the County Coroner, Tribal Official, and Reclamation archaeologist have examined the find and agreed on an appropriate course of action.</p>
Air Quality	<b>AQ-1:</b> The project proponent shall ensure through contractual obligations that the particulate matter (PM) control measures listed in <b>Section 3.6.3</b> are implemented during construction, as required by the San Joaquin Valley Air Pollution Control District (SJVAPCD).
Global Climate	<b>AQ-2:</b> The project proponent shall ensure through contractual obligations that the best management practices listed in <b>Section 3.7.3</b> are implemented during construction to minimize <u>greenhouse gas (GHG)</u> emissions.
Geology and Soils	<p><b>GS-1:</b> To eliminate potential impacts resulting from excessive erosion and loss of topsoil, the project proponent shall comply with the NPDES Construction General Permit, including implementation of appropriate erosion and sediment control measures. Compliance with the General Permit requires developing a site specific SWPPP that shall identify the location of temporary erosion control features necessary to direct and filter stormwater runoff during construction activities. Temporary erosion control features used during construction may include, but are not limited to, silt fences, fiber rolls, erosion control blankets, temporary sediment basins, and rock bag dams. The SWPPP shall also identify BMPs that would reduce the transportation of pollutants offsite. The SWPPP shall be implemented during the construction and operation of the project. The above mitigation will also minimize impacts to Water Quality.</p> <p><b>GS-2:</b> All underground facilities shall be designed using durable materials. All project facilities shall be designed in accordance with the National Association of Corrosion Engineers (NACE) standards for special coatings and/or cathodic protection systems using specific soils data.</p>
Hazards and Hazardous Material	<b>HZ-1:</b> The mitigation measures listed in <b>Section 4.1.8.3</b> are recommended to decrease the risk of fire during construction of the Proposed Project.

Resource	Protection Measure
Transportation/Traffic	<b>T-1:</b> The County shall ensure, through contractual obligations, that the mitigation measures listed in <b>Section 4.1.16.3</b> to reduce or eliminate construction-related traffic impacts are implemented. This will include the preparation of a traffic control plan, coordination with local emergency service providers, and maintaining at least one open lane of traffic on Winchell Cove Road at all times.

## **2.3 Alternatives Eliminated From Detailed Consideration**

Alternatives to the proposed pipeline alignment were considered, but eliminated from detailed evaluation as they would not meet the purpose and need for the Proposed Action or would not considerably reduce environmental effects. These alternatives are described below.

### **Alternative Alignments**

Alternative alignments would require extending through previously undisturbed lands, and thus would not meet the project objective to minimize environmental impacts. Additionally, because the purpose and need for the Project is to improve the operational efficiency of the existing CSA 34 water supply infrastructure, the current alignment is necessary to facilitate the laterals proposed between the existing and proposed pipeline to ensure even pressure throughout the system.

### **Removal of Existing Pipeline**

This alternative would have involved the removal of the existing pipeline and installation of the proposed pipeline within the trench of the existing pipeline. This option would have resulted in the disruption of water supply for four to six weeks as the existing pipeline is taken out of service. The construction of this alternative would have had considerable additional costs, including trucking in potable water from Fresno throughout the construction period, while having no additional benefits. Furthermore, the use of the single pipeline would not provide CSA 34 water users with a contingency plan in the event of an emergency and system malfunction, and therefore, would not meet the purpose and need for the Proposed Action.

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