

RECLAMATION

Managing Water in the West

Environmental Assessment

Colusa County Water District SCADA Installation Project

EA 14-08 - NCAO



**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Northern California Area Office**

September 2014

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 commitment 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

APE	Area of Potential Effect
CCWD	Colusa County Water District
CFR	Code of Federal Regulations
Delta	Sacramento San Joaquin Delta
District	Colusa County Water District
EA	Environmental Assessment
ESA	Endangered Species Act
HMI	Human Machine Interface
ITA	Indian Trust Assets
MCC	Motor Control Center
NCAO	Northern California Area Office
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PLC	Programmable Logic Controller
Reclamation	Bureau of Reclamation
SCADA	Supervisory Control and Data Acquisition
TCC	Tehama-Colusa Canal
TCP/IP	Transmission Control Protocol/Internet Protocol
UPS	Uninterrupted Power Supply

Section 1 Introduction

1.1 Background

This Environmental Assessment (EA) has been prepared to examine the potential environmental impacts associated with providing a WaterSMART Water and Energy Efficiency grant to the Colusa County Water District (District). The District would use this grant funding as a cost-share to install Supervisory Control and Data Acquisition (SCADA) equipment and upgrade two voltage control centers to automate District-wide water operations. Automation of water operations would improve on water use efficiencies within the District to result in substantial energy and water savings. The proposed Project is located in Colusa and Yolo counties, California (Figure 1.1).

The U.S. Department of the Interior's WaterSMART (*Sustain and Manage America's Resources for Tomorrow*) Program establishes a framework to provide Federal leadership and assistance on the efficient use of water, integrating water and energy policies to support the sustainable use of all natural resources, and coordinating the water conservation activities of various Department bureaus and offices. Through the WaterSMART Program, the Department is working to achieve a sustainable water management strategy to meet the Nation's water needs. For further information on the WaterSMART Program, please see (<http://www.usbr.gov/WaterSMART>).

1.2 Need for the Proposal

The majority of water used by the District to irrigate approximately 29,000 acres is derived of water transported in the Tehama-Colusa Canal (TCC), a Bureau of Reclamation-owned facility. Eight diversion points along the TCC are used to reroute water to eight separate pipeline laterals that comprise the irrigation distribution system of the District (See Figure 1.1). Five of the pipeline laterals are served by canal side pumping plants and three are gravity-fed systems that draw water through gates on the canal side turnouts. Water delivered through these eight diversion points/pipeline laterals serve up to 650 different delivery points within the District. Implementing the Proposed Action would further the goals and objectives of the WaterSMART Program as they apply to water supply reliability within the District. Specifically, the Proposed Action would provide remote and central control from the District office to maximize water use efficiency by maintaining a much narrower operational band at the downstream regulating tanks/reservoirs and control structures. In turn, the improved efficiencies would allow improved water service while annually conserving up to 2,160 acre-feet of water.

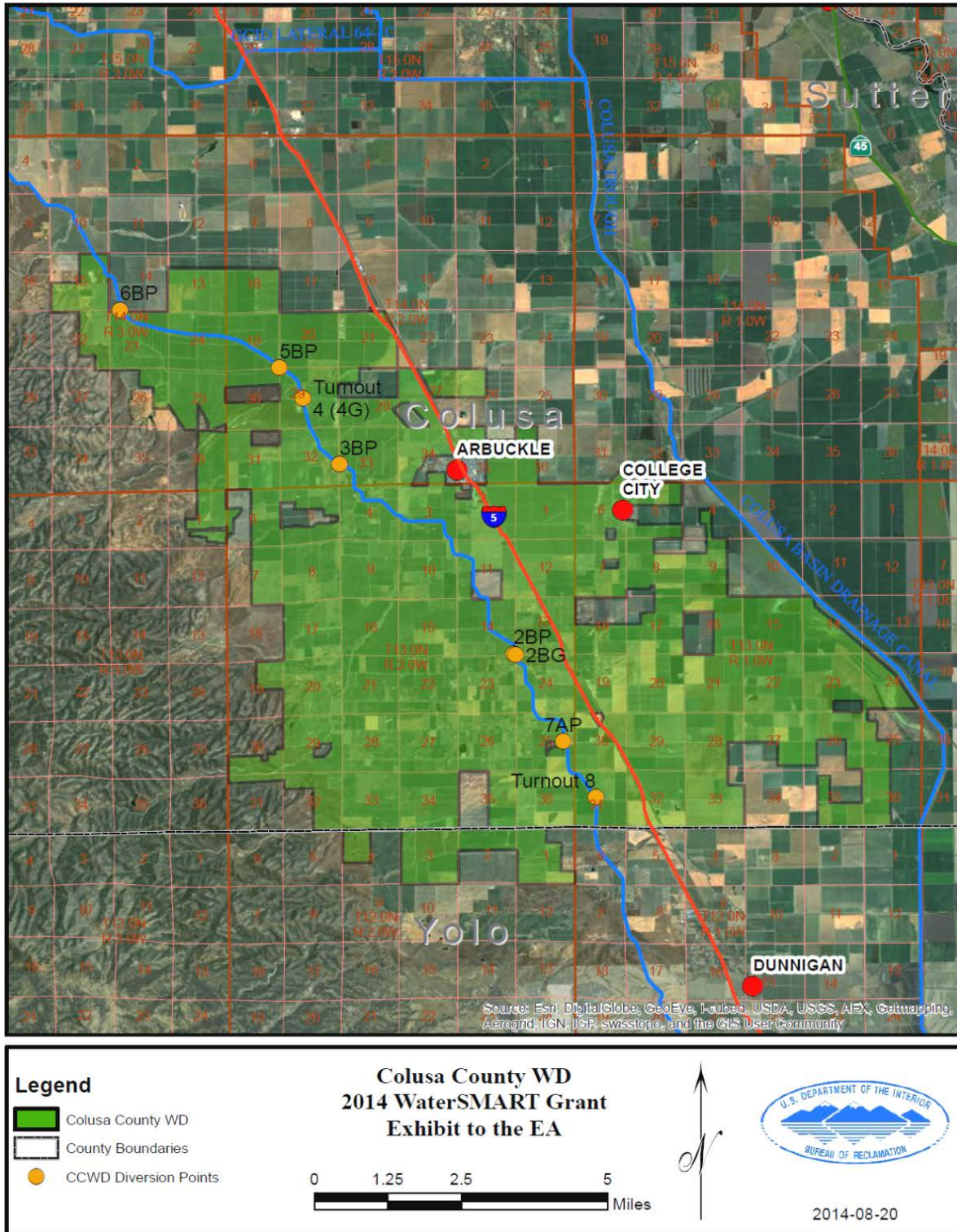


Figure 1-1. Colusa County Water District boundaries and diversion points from the Tehama-Colusa Canal that would receive SCADA equipment. See Appendix A for greater detail on specific equipment.

Section 2 Proposed Action and Alternatives

This EA 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 for comparison for determining potential effects to the human environment.

2.1 No Action Alternative

The No Action Alternative would consist of Reclamation not providing grant funding for the Project, which would likely result in the District continuing to operate and maintain their distribution system under the existing condition.

2.2 Proposed Action Alternative

The Proposed Action is to provide a WaterSMART Water and Energy Efficiency grant (\$483,000) to the District. The grant funding would be used as a cost-share to install SCADA equipment and upgrade two voltage control centers to automate District-wide water operations. The equipment breakdown for each area where SCADA would be installed follows. In all cases, this equipment is to be installed on existing infrastructure.

2.2.1 Pumping Plants on the TCC

There are five canal side sites (6BP, 5BP, 3BP, 2BP, 7A) that receive water from the TCC (Figure 1.1). These pumping plants elevate the water to the first reservoir then the re-lift pumping plants provide additional lift to the following reservoirs. Pump sizes and count vary from one canal site plant to the other but the basic control and equipment remains the same for all 5 sites. The following is a list of the new equipment that will be installed in these plants as part of the SCADA system. General information on each pumping plant and timing of installation are provided in Appendix A.

- New state-of-the-art Programmable Logic Controller (PLC) Transmission Control Protocol/Internet Protocol (TCP/IP) with appropriate inputs and outputs for the pumping plant (PP).
- PLC Uninterruptable Power Supply (UPS).
- PLC and support equipment will be housed in the existing Motor Control Centers (MCC).
- Existing control wiring system and operators will be used for each individual pump, except 2B and 2C, which will have new MCCs installed (see *Medium Voltage Motor Control Center Upgrades* below).

- Networked radios for communication between the lateral pumping plants for levels, run status, etc.
- Data communication link to the office for the office SCADA Human Machine Interface (HMI) computer.
- Pump control programming to maximize efficiency through pump selection.
- New sump level sensor.
- New downstream reservoir level sensor.
- Modbus Interface Module (MIM Optional) to interface with the on-site SonTek flow meter, if applicable.

Medium Voltage Motor Control Center Upgrades

The existing medium voltage MCCs at pumping plant 2B and 2C would be upgraded to allow for compatibility with the new SCADA system. This upgrade consists of replacing the complete medium voltage motor starter, sync and operator control components on the fourteen (14) pumps at each of the pumping plants. The new motor starters will be soft-starts that will prolong the life of the motor, pumps, and hydraulic system components while reducing energy use (~25% reduction). The existing enclosure and internal bussing will be reused. The other pumping plants (regular voltage plants @ 240 volts) in the District would not be retrofitted with soft-starts but would have, as a result of the SCADA implementation, new pump selection algorithms implemented for selecting the most efficient pump combination for the desired flow rate.

2.2.2 Pumping Plant Relift Sites

There are 10 relift sites and/or regulating tanks/reservoirs that receive water from the lower plants and via the relift plant elevate the water to the next reservoir. Pump sizes and count vary from one relift site to the other but the basic control and equipment remains the same for all 10 sites. The following is a list of the new equipment that will be installed in these plants as part of the SCADA system. General information on each location is provided in Appendix A.

- New state-of-the-art PLC TCP/IP with appropriate inputs and outputs for each pumping plant (PP).
- PLC UPS.
- PLC and support equipment will be housed in the existing MCCs.
- Existing control wiring system and operators will be used for each individual pump except for 2C, which will be equipped with new MCCs.
- Networked radio for communication between the lateral pumping plants for levels, run status, etc.
- Pump control programming to maximize efficiency through pump selection.
- New sump level sensor.

- New downstream reservoir level sensor.

2.2.3 Gravity Sites

There are three gravity sites that receive water from the TCC (4G, 2G, and Turnout 8; see Figure 1.1 for general locations). These sites provide water to downhill laterals. There are no pumps at these sites but the basic control and equipment remains the same for both sites. The following is a list of the new equipment that will be installed in 2BG and Turnout 8 as part of the SCADA system. Note: site 4G is not part of the Proposed Action. Additional information on each site is provided in Appendix A.

- New state-of-the-art PLC TCP/IP with appropriate inputs and outputs for each gravity site.
- New enclosure stand and antenna for PLC.
- Networked radio for communication to office for levels, etc.
- Pump control programming to maximize efficiency through pump selection.
- New upstream screen level sensor.
- New downstream screen level sensor.
- Modbus Interface Module (MIM Optional) to interface with the on-site SonTek flow meter, if applicable.

2.2.4 Office Master Site

The master site will acquire data from all SCADA sites via the radio network system. This data will be graphically presented by site on the office computer and HMI software. The graphical screens will be constructed with operational use in mind as follows:

- Introductory screen to acknowledge district and allow direct access to sites and setup.
- Overview screen with basic system operational data displayed on a map of the district.
- Individual site screens to remotely view field data and control pump stations.
- Setup screens for:
 - Sensor field calibration
 - Pump selection and operational level set points
 - Operational delay timer
 - Alarm set points
 - Alarm delays
 - Alarm output control
- Preventative maintenance screens for run times and starts.

- Alarm and dialer or email.
- Alarm screen.
- Remote access via internet for remote viewing and control.
- Wall mounted wide screen monitor for easy group viewing.
- Touch screen monitor for HMI computer for easy operator access.
- Master radio and omni-directional antenna for communication to data sites.
- 1500VA UPS backup for radio and HMI computer.
- Secure operator HMI login.
- One additional remote HMI computer will be provided in the manager's office.

2.2.5 Installation Timelines

The installation process is anticipated to take up to a year to complete due to the need to have equipment manufactured for this project, as well as the continual need to use the pump systems during the irrigation season. With these considerations, the retrofit at the 2B and 2C pumping plants would occur between January and March of 2015, a time before the irrigation season begins. Once completed, the master computer, radio and programs would be installed at all pumping stations, likely in March or April. SCADA equipment would be installed after October 1, 2015, again a time when water demand is limited, which allows field testing and troubleshooting of the system during a time of low demand.

Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environmental resources and the environmental consequences of implementing the No Action and Proposed Action Alternatives.

Impacts to the following resources were considered and found to be minor. Brief explanations for their impacts are provided below.

- **Land Use:** there would be no change to land use.
- **Biological Resources:** The Proposed Action does not have the potential to affect Biological Resources. All infrastructural changes associated with the Proposed Action would occur at existing facilities and no ground disturbance would occur. Additionally, there would be minor changes to water efficiency, but this is not expected to change land use practices and therefore potential habitat of any flora or fauna in the region.
- **Indian Sacred Sites:** There are no identified Indian Sacred Sites within the action area of the Proposed Action and therefore, this project would not inhibit use or access to Indian sacred sites.
- **Indian Trust Assets (ITA):** The Proposed Action does not have the potential to affect ITA (See Appendix B).
- **Environmental Justice:** There are no economically disadvantaged or minority populations that would be disproportionately affected by the Proposed Action.

3.1 Surface Water Resources

3.1.1 Affected Environment

The District is comprised of 45,670 acres of which 29,204 are irrigated. The District is mainly located in Colusa County but a small segment of the southernmost area is in Yolo County. In recent years Project water allocations have been approximately 54,000 acre-feet.

Water is delivered to the District pumping plants on the TCC through long-term contracts with Reclamation through the Tehama-Colusa Canal Authority. The District also has a transfer agreement with Westside Water District for transferred water to supplement shortages in Reclamations allocations.

Water is diverted from the TCC at eight locations. Five of the diversions are by pump and three are by gravity. Water from each diversion enters a closed-pipe water system. Irrigation methods are 70% sprinkler and drip systems with 25% Border and Furrow and 5% of other methods. The eight separate pipeline lateral systems, which comprise the irrigation distribution system of the District, are numbered from north to south: 6BP, 5BP, 4G, 3BP, 2BP, 2BG, 7AP, 8G (also see Figure 1.1). Pumped systems are designated by the letter P. and the gravity systems designated by the letter G. The pumped systems are served by canal side pumping plants, and water is delivered into the gravity systems through gates on the canal side turnouts. All systems include buried pipelines, farm outlets (also referred to as farm turnouts), and appurtenant facilities. The major portion of the surface water service area is located uphill from and generally west of the TCC. Pumped systems 6B, 7A, 3B, 2B serve lands on the downhill side of the TCC.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, no changes would occur to the existing operations or the District's water resources. The District irrigation system would continue to experience unreliable water pressure and continual inefficient use of irrigation water to certain parcels.

Proposed Action

Providing grant funding to support the Proposed Action would provide the District with a modern system for moving water throughout the District more efficiently. The addition of SCADA throughout the District would provide the District the ability to remotely monitor pressures and water elevations throughout the District to more efficiently use the existing available water resources and infrastructure. Improved and reliable water pressure will allow them to not need the extra "bump" of water that has been used to meet the irrigation needs for crops at the end of several irrigation lines. These "bumps" result in watering of crops on the same irrigation line that were adequately watered prior to the "bump" to receive an additional watering cycle, effectively but unnecessarily doubling the water applied in those areas. The new SCADA system and controls would prevent these duplicate irrigations, which are estimated at 2,160 acre-feet annually. In turn, this water would be available for other uses.

The timeline for implementing the Proposed Action is not expected to result in any adverse effect to water conveyance within the District. System testing and troubleshooting would occur during the time of reduced water demand.

3.2 Cumulative Impacts

There are no other known past, present, and reasonably foreseeable future actions that would cumulatively result in significant impacts to the human environment when taking into consideration the actions analyzed within this EA.

Section 4 Consultation and Coordination

4.1 Endangered Species Act (ESA) (16 USC § 1531 et seq.)

Section 7 of the ESA requires Federal agencies to ensure that discretionary Federal actions do not jeopardize the continued existence of special status species or result in the destruction or adverse modification of the critical habitat of these species.

Because there are no ground-disturbing or construction activities that could impact critical habitat or impacts to water resources that could impact special status species, there would be no effect to ESA-listed species. As a consequence, Reclamation has determined consultation is not necessary.

4.2 National Historic Preservation Act (NHPA) (16 USC§ 47)

Section 106 of the NHPA requires Federal agencies to consider the effects of Federal undertakings on historic properties, properties determined eligible for inclusion in the National Register. Compliance with Section 106 follows a series of steps designed to identify interested parties, determine the Area of Potential Effect (APE), conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties. The activities associated with the Proposed Action would include no new ground disturbance, no change in land use, or the use of existing conveyance infrastructure. Based on this information, Reclamation has determined that there would be no potential to affect historic properties by the Proposed Action pursuant to 36 CFR 800.3(a)(1) (See Appendix C).

Section 5 Preparers and Reviewers

Paul Zedonis, Natural Resource Specialist, NC-312
Jake Berens, Water Conservation Specialist, NC-446
Don Reck, Supervisory Natural Resource Specialist, NC-300
Margaret James, Secretary, NC-101
Scott Williams, Archaeologist, MP-153
Patricia Rivera, ITA Specialist, MP-400

Appendix A. Irrigation systems (from North to South) of the Colusa County Water District receiving SCADA equipment.

System & Facility	Pumping Plant ID	Feature Size	Lat.- Long & Elevation	Total HP	Description	Estimated Timeline
6 System						
Canal side pumping plant w/Regulating Tank	6BA GE 460 V 5 pumps 6A Tank	2 -200 hp 1 - 50 hp 2 - 25 hp 362,000 gal	39°03'27.48"N 122°10'00.98"W elev 60m	500	Install new state-of-the-art programmable Logic Controller (PLC) TCP/IP with appropriate Inputs and Outputs for the pumping plant (PP) - See attached equipment list for Canal site	Jan - Feb 2015
Canal side pumping plant	6B GE 460 V 3 pumps	1 - 150 hp 2 - 75 hp	39°03'27.48"N 122°10'00.98"W elev 60m	300	"	Jan - Feb 2015
Regulating Tank at end of line	6B Tank	300,000 gal	39°02'32.27"N 122°09'40.50"W elev 80m		New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	Jan - Feb 2015
5 System						
Canal side pumping plant	5B GE 460 V 4 pumps	1 - 200 hp 1 - 100 hp 2 - 60 hp	39°02'33.33"N 122°06'59.74"W elev 58m	420	Install new state-of-the-art programmable Logic Controller (PLC) TCP/IP with appropriate Inputs and Outputs for the pumping plant (PP) - See attached equipment list for Canal site	Feb - Mar 2016
Regulating Tank at end of line	5 Tank	250,000 gal	39°02'03.96"N 122°08'35.02"W elev 74m		New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	Feb - Mar 2016
4 System						
Gravity Fed	-	-		-	Not planned	
3 System						
Canal side pumping plant w/Regulating Tank	3BA GE 460 V 4 pumps 3 A Tank	1 - 75 hp 1 - 40 hp 2 - 20 hp 300,000 gal	39°01'04.81"N 122°05'52.32" W elev 58m	155	Install new state-of-the-art programmable Logic Controller (PLC) TCP/IP with appropriate Inputs and Outputs for the pumping plant (PP) - See attached equipment list for Canal site	Nov 2015 - Jan 2016

System & Facility	Pumping Plant ID	Feature Size	Lat.- Long & Elevation	Total HP	Description	Estimated Timeline
Canal side pumping plant	3BC GE 460 V 5 pumps	2 - 350 hp 1 - 200 hp 2 - 100 hp	39°00'25.09"N 122°07'02.25"W elev 80m	1100	"	Nov 2015 - Jan 2016
Relift pumps w/Regulating Reservoir	3CD GE 460 V 5 pumps	2 - 200 hp 1 - 150 hp 2 - 50 hp	38°59'20.05"N 122°07'00.50" W elev 103m	650	New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	Nov 2015 - Jan 2016
Relift Pumps w/Regulating Reservoir	3CG GE 460 V 4 pumps	2 - 100 hp 2 - 50 hp	39°00'16.44"N 122°07'57.44"W elev 99m	300	"	Nov 2015 - Jan 2016
Relift pumps w/Regulating Reservoir	3D GE 460 V 5 pumps	2 - 150 hp 1 - 100 hp 2 - 40 hp	38°57'16.33"N 122°06'20.58"W elev 119m	480	"	Nov 2015 - Jan 2016
Regulating Tank at end of line	3D Tank	190,000 gal	38°57'16.27"N 122°06'20.70"W elev 119m		"	Nov 2015 - Jan 2016
Relift Pumps w/Regulating Reservoir	3G GE 460 V 3 pumps	1 - 75 hp 2 - 40 hp	39°00'44.65"N 122°08'49.75"W elev 124m	155	"	Nov 2015 - Jan 2016
Regulating Reservoir	3G Reservoir	Regulates thru Telemetry			"	Nov 2015 - Jan 2016
2 System						
Canal side pumping plant	2B GE 2400 V. 8 pumps	2 - 350 hp 3 - 300 hp 1 - 200 hp	38°58'11.45"N 122°02'36.55"W elev 55m	2000	Phase I - Retrofit/Replace motor control panels for all 8 motors identified and install soft starts as necessary	Jan 2015 -Feb 2016

System & Facility	Pumping Plant ID	Feature Size	Lat.- Long & Elevation	Total HP	Description	Estimated Timeline
		2 - 100 hp			Phase II - Install new state-of-the-art programmable Logic Controller (PLC) TCP/IP with appropriate Inputs and Outputs for the pumping plant (PP) - See attached equipment list for Canal site	Jan 2016 - Mar 2016
Relift Pumps w/Regulating Reservoir	2C GE 2400 V 6 pumps	3 - 250 hp 1 - 125 hp 2 - 75 hp	38°58'08.56"N 122°04'14.80" W elev 78m	1025	Phase I - Retrofit/Replace motor control panels for all 8 motors identified and install soft starts as necessary	Jan 2015 -Feb 2016
					Phase II - New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	Jan 2016 - Mar 2016
Relift Pumps w/Regulating Reservoir	2D VS 480 V 5 pumps	2 - 125 hp 1 - 75 hp 2 - 40 hp	38°57'2074"N 122°05'19.71" W elev 100m	365	New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	Jan 2016 - Mar 2016
Regulating Reservoir	2E Reservoir	Regulates thru Telemetry			"	
2B Gravity	-	-		-	New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for Gravity site.	
7 System						
Canal side pumping plant	7A VS 480 V 5 pumps	2 -400 hp 1 - 200 hp 2 - 125 hp	38°56'50.84"N 122°01'40.57"W elev 53m	1250	Install new state-of-the-art programmable Logic Controller (PLC) TCP/IP with appropriate Inputs and Outputs for the pumping plant (PP) - See attached equipment list for Canal site	March 2016 - April 2016
Relift Pumps w/Regulating Reservoir	7B VS 480 V 4 pumps	1 - 200 hp 1 - 100 hp 2 - 50 hp	38°55'34.38"N 122°03'38.06"W elev 93m	350	New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for pumping plant (PP). See attached equipment list for relift sites.	March 2016 - April 2016

System & Facility	Pumping Plant ID	Feature Size	Lat.- Long & Elevation	Total HP	Description	Estimated Timeline
Regulating Tank at End	7B Tank	-	38°55'05.19"N 122°04'29.59"W elev 112m		"	March 2016 - April 2016
8 System						
Gravity Fed	-	-	38°55'59.88"N 122°01'03.99"W elev 52m	-	New state-of-the-art PLC TCP/IP with appropriate Inputs and Outputs for Gravity site. See attached equipment list for gravity sites.	March 2016 - April 2016
Office						
Master Site Install ; Training & Debugging					See Attached Equip list.	April 2016 - Sept 2016

Appendix B. Indian Trust Asset review email.



Zedonis, Paul <pzedonis@usbr.gov>

ITA Review: EA 14 - 08-NCAO - Colusa County Water District SCADA Installation Project

RIVERA, PATRICIA <privera@usbr.gov>

Mon, Sep 22, 2014 at 8:43 AM

To: "Zedonis, Paul" <pzedonis@usbr.gov>

Cc: Kristi Seabrook <kseabrook@usbr.gov>, Mary Williams <marywilliams@usbr.gov>, "Berens, Jacob J" <JBerens@usbr.gov>

Paul,

I reviewed the proposed action to provide a CALFED Water Use Efficiency grant (\$448,000) to the Colusa County Water District (District). The grant funding would be used as a cost-share to install Supervisory Control and Data Acquisition (SCADA) equipment and upgrade two voltage control centers to automate District-wide water operations. The equipment breakdown for each area where SCADA would be installed follows. In all cases, this equipment is to be installed on existing infrastructure.

The proposed action does not have a potential to impact Indian Trust Assets.

Patricia Rivera
Native American Affairs Program Manager
US Bureau of Reclamation
Mid-Pacific Region
2800 Sacramento, California 95825
(916) 978-5194

Kristi please log in. No further action required. Thanks

Appendix C. Cultural Resource Review, Closeout Memorandum

CULTURAL RESOURCE COMPLIANCE Mid-Pacific Region Division of Environmental Affairs Cultural Resources Branch

MP-153 Tracking Number: 14-MPRO-235

Project Name: CALFED Water Use Efficiency Grant, Colusa County Water District

NEPA Document: CEC

MP 153 Cultural Resources Reviewer: Scott Williams 

Date: September 17, 2014

The proposed undertaking by Reclamation is providing the Colusa County Water District with a CALFED Water Use Efficiency Grant. The grant funding would be used as a cost-share to install Supervisory Control and Data Acquisition (SCADA) equipment and upgrade two voltage control centers to automate District-wide water operations. Use of Federal appropriations constitutes an undertaking pursuant to Section 301(7) of the NHPA (16 U.S.C. 470) as amended which requires compliance with Section 106 of the NHPA. This is the type of undertaking that does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the NHPA Section 106 regulations codified at 36 CFR § 800.3(a)(1). Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1).

The grant would assist the District in acquiring a turn-key SCADA system for the District. The SCADA system would include equipping eight existing pumping stations (Table 1) with Programming Logic Controllers (PLC) that contains the program the pumping station will abide by when running. All PLC's will communicate through TransNET 900 radio's giving the user total control over the pumping stations from the computer in the District's office, personal communication device or home computer. Utilizing a nested radio system all pumping stations will relay information from station to station and from station to District office, which will allow the pumping stations to control flow based on water level or pressure while still having the ability to control all stations from the District Office at the same time. Set point, alarm, trending, and control screens will be developed for the user interface part of the system. Upgrades to these stations will use the existing infrastructure with no ground disturbance anticipated. After reviewing documentation provided on September 16, 2014, Reclamation has concluded this action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places.

This memorandum is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.