

Environmental Assessment

Pressure Reducing Valve SCADA Upgrades Project – South Tahoe Public Utilities District

18-07-MP



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.



Section 1 Introduction

In conformance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality regulations (40 CFR 1500-1508), and Department of Interior regulations (43 CFR Part 46), the Bureau of Reclamation prepared this Environmental Assessment to disclose potential environmental effects associated with granting a CALFED Water Use Efficiency Grant (CALFED grant) to the South Tahoe Public Utility District (STPUD) for its Pressure Reducing Valve (PRV) SCADA¹ Upgrade Project (Proposed Action). The Proposed Action would take place in the STPUD service area located in South Lake Tahoe (Figure 1).

STPUD Water Distribution System is divided into 31 pressure zones. Many of these zones are fed by remote PRV Stations. The remote PRV Stations are generally located in buried vaults either in or adjacent to a roadway (Figure 1). The PRV stations do not have a power source and therefore, do not have any instrumentation that can be monitored remotely. STPUD is completely "blind" at 19 zones that are fed remote PRVs (with no other facilities feeding the zone). There is no flow meter to monitor water delivery into the zone for distribution. There are no pressure gauges to monitor damaging pressure transients (which are common in pressure-regulated zones) or to monitor breaks in the system for emergency response. The Proposed Action will install the necessary equipment at 19 PRV Stations to allow for "real-time" monitoring capabilities. The Proposed Action will improve STPUD's system reliability and operational efficiency by allowing district staff to remotely operate the distribution system opposed to manual operation.

1.1 Previous Environmental Documents

In 2017, Reclamation completed NEPA and signed a Findings of No Significant Impact and granted the STPUD with a CALFED grant for its Advanced Metering Infrastructure System project (AMI Project). The STPUD completed an Initial Study (IS) in 2016 to disclose impacts associated with the AMI Project (Sierra Ecotone Solutions, 2016). The scope and magnitude of the AMI Project is much greater than the Proposed Action and involves installation of 5,300 water meters on existing residential water supply connections. Additionally, the Proposed Action is located in the same service area as the AMI Project and construction will occur in similar previously disturbed areas of roadways or compacted shoulders. Reclamation reviewed the 2016 IS and incorporates that document, and all of the analysis of effects by reference. The 2016 IS is available online at http://stpud.us/asset/?id=4789.

The IS prepared for the AMI Project evaluated the following resources; aesthetics, agricultural resources, air quality, biological resources (stream environment zones), cultural resources, geology, greenhouse gases and climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems (Sierra Ecotone Solutions, 2016). All of the resources analyzed in the IS were found to either have no effect, or less than significant effect and therefore no mitigation was developed for the project (Sierra Ecotone Solutions, 2016).

¹ Supervisory Control and Data Acquisition



Figure 1: STPUD Service Area 1.2 Need for the Proposed Action

The Proposed Action will improve STPUD system reliability by improving "real-time" monitoring capabilities at remote PRV stations. Real-time monitoring is needed to ensure system reliability during severe storm events or if other system issues arise. If system reliability is in question, then customers may experience periods when no water is available until the system can be fixed. Operational efficiency would also improve since the district staff would able to remotely operate the distribution system.

Section 2 Proposed Action and Alternatives

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not award STPUD with a CALFED grant for the Proposed Action. Although it is possible that the STPUD may find alternate sources of funding for the project, for the purposes of this EA, the consequences of Reclamation not providing funding for the Proposed Action would result in no construction of the project which may lead to water supply system reliability issues.

2.2 Proposed Action

Under the Proposed Action, Reclamation would award a CALFED grant to STPUD. STPUD would use the funding to install monitoring equipment at each PRV station within the STPUD service area (Figure 1). Each PRV station will involve:

- Installation of a digital flow meter;
- Installation of a digital suction and discharge pressure gauge;
- Installation of off-grid power supply and storage (may vary each site);
- Modification or replacement of existing vault structure, piping and valves to accommodate new instruments; and
- Integration of data, status and alarm signals into the existing SCADA system.

For PRV stations that do not require a vault replacement, the Proposed Action would include installation of a foundation for the control panel, and installation of an electrical conduit run from the existing PRV vault to the new control panel. The foundation is expected to disturb approximately 30 square feet and require 3 cubic yards of earth moving. For the longest anticipated conduit run of 180 feet, there will be 360 square feet of earth disturbance and 40 cubic yards of earth removed. All work will be constrained to the existing pavement and compacted shoulder right-of-way.

PRV stations that require a vault replacement will include the above work plus excavation for a new vault along with excavation for new piping and valves to connect the new vault with the existing water distribution system, and demolition of the old system. Excavation for construction of the new vault is expected to disturb 120 square feet, and move approximately 35 cubic yards of earth. The same amount of disturbance is expected for demolition of the existing vault. The longest anticipated water main to be replaced will be 240 feet and will disturb approximately 720

square feet and move approximately 80 cubic yards of earth. All work will be constrained to the existing pavement and compacted shoulder right-of-way.

Section 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 (ITAs), 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:

- ITAs: are legal interests in property or rights held in trust by the United States for Indian Tribes or individual Indians. Indian reservations, Rancherias, and Public Domain Allotments are common ITAs in California. The nearest ITA is Washoe Tribe of Nevada and California approximately 12.47 miles southeast of the Proposed Action. The proposed action does not have a potential to affect ITAs (Appendix A).
- 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.
- 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. 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.

3.2 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, Reclamation would not award STPUD a CALFED grant. Although it is possible that the STPUD may find alternate sources of funding for the project, for the purposes of this environmental assessment, the consequences of Reclamation not providing funding for the Proposed Action would result in no construction which may result in the STPUD not having a reliable drinking water source for its customers.

3.3 Environmental Consequences of Funding the Proposed Action

Reclamation reviewed the 2016 IS prepared for the AMI Project to determine possible effects associated with the Proposed Action. Potential effects associated with the project would be temporary and would only occur during construction. All construction associated with the Proposed Action would be done in previously disturbed areas on paved roadways or compacted shoulders, similar to the AMI Project. The 2016 IS included project design features and best management practices for construction dewatering, fugitive dust control, surface water, groundwater and sediment control, control of invasive species, construction noise reduction, cultural resources protection, a traffic control plan, a hazard and safety control plan, and a migratory bird nest site protection program. The IS concluded the project would have less than significant effect to aesthetics, air quality, biological resources, geology and soils, greenhouse gas and climate change, hazards and hazardous material, hydrology and water quality, noise, transportation and traffic, and utilities and service systems (Sierra Ecotone Solutions, 2016). The Initial Study is available: <u>http://stpud.us/asset/?id=4789</u>.

3.4 Cumulative Effects

According to Council on Environmental Quality 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 reasonable 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).

Although the Proposed Action will result in a small construction related greenhouse gas emission, improved operational efficiency from installation of SCADA will operationally offset any small construction related greenhouse gas contribution by eliminating the need to drive to PRV stations (Sierra Ecotone Solutions, 2016).

Section 4 Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation consulted and coordinated with STPUD and used information included in the 2016 IS.

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

Section 7 of the Endangered Species Act 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 the critical habitat of these species.

Reclamation reviewed the IS and downloaded a new version of the Information for Planning and Consultation portal for endangered species and the list of species has not changed from the list of species included in the 2016 IS. As a result, Reclamation determined that the project would have no effect on federally-listed as endangered or threatened species. Therefore, no consultation is needed.

4.3 Title 54 U.S.C § 306108, Commonly Known as Section 106 of the National Historic Preservation Act

Title 54 U.S.C. § 306108 (formerly 16 U.S.C. 470 et seq.) requires Federal agencies to consider the effects of their undertakings on historic properties, properties determined eligible for inclusion in the National Register, and to afford the Advisory Council on Historic Preservation an opportunity to comment. Compliance with Section 106 follows a series of steps, identified in its implementing regulations found at 36 CFR Part 800, that include identifying consulting and interested parties, identifying historic properties within the area of potential effect, and assessing effects on any identified historic properties, through consultations with the State Historic Preservation Officer, Indian tribes and other consulting parties.

Based on historic properties identification efforts conducted by Dr. Susan Linström, Reclamation consulted with, and received concurrence from, the State Historic Preservation Officer on a finding of no historic properties affected pursuant to 36 CFR § 800.3(a)(1) on June 12, 2018 (Appendix B). As such, Reclamation has no further obligations under Title 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act.

Section 5 References

- Linström, Susan, Ph.D. 2016. South Tahoe Public Utilities District Water Meter Installation Project, Cultural Resources Inventory.
- Sierra Ecotone Solutions. 2016. South Tahoe Public Utility District Water Meter Installation Project, Phases III through V. July 7, 2016.

Appendix A: ITA Concurrence

Indian Trust Assets Request Form (MP Region)

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

Date: 12/21/2016

Requested by	Nathaniel Martin	
(office/program)		
Fund	16XR0680A1	
WBS	RX33080001150210E	
Fund Cost Center	RR02015200	
Region #		
(if other than MP)		
Project Name	Advanced Metering Infrastructure (AMI) System – South Tahoe Public Utilities District	
CEC or EA Number	NA	
Project Description (attach additional sheets if needed and include photos if appropriate)	The South Tahoe Public Utilities District (STPUD) is a special district that supplies approximately 14,000 drinking water connections with fresh potable water and 17,000 sewer service connections to the City of South Lake Tahoe and portions of El Dorado County. All drinking water supply sources are from 12 wells and produce and average annual water supply of 9,528 acre-feet per year (AFY). In order to comply with AB 2752 and reduce water demand by the year 2020, STPUD needs additional funding of \$297,606 in grant funds to finish Phase 3 and Phase 4 of its AMI installation. By regulating future was supply in the service area, and promoting conservation and meeting a 20% demand reduction, there will be water savings in the Truckee River downstream that will benefit tribes downstream near Pyramid Lake.	

*Project Location	There would be approximately 7,000 coordinates for this water
(Township, Range,	meter installation. So for the sake of saving time, see the two
Section, e.g., T12	additional attachments.
R5E S10, or	
Lat/Long cords,	
DD-MM-SS or	
decimal degrees).	
Include map(s)	

12/21/2016	Nathaniel Martin	Nathaniel Martin	
	Signature	Printed name of preparer	Date

ITA Determination:

The closest ITA to the proposed <u>Advanced Metering Infrastructure</u> (AMI) System – South Lake Tahoe Public Utilities District activity is the <u>Washoe Tribe of Nevada & California</u> about <u>12.47</u> miles to the <u>southeast</u>. (See attached image).

Based on the nature of the planned work it <u>does not</u> 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 <u>will not</u> have any impacts on ITAs.

K.Clancy	Kevin Clancy	12/22/2016	
Signature	Printed name of approver	Date	



Appendix B: NHPA, Section 106 Concurrence

CULTURAL RESOURCES COMPLIANCE Division of Environmental Affairs Cultural Resources Branch (MP-153)

MP-153 Tracking Number: 17-LBAO-196.001

Project Name: Pressure Reducing Valve and Supervisory Control and Data Acquisition Upgrades Project, South Lake Tahoe Public Utilities District (STPUD), El Dorado County California

NEPA Contact: Nate Martin, Natural Resource Specialist

EA Number: 18-07-MP

MP 153 Cultural Resources Reviewer: Lex Palmer, Architectural Historian

Date: June 13, 2018

Reclamation is proposing to award Small-Scale Water Efficiency Projects funds to the STPUD to assist with this project. The award of Federal funding constitutes an undertaking as defined in 36 CFR § 800.16(y) and is a type of activity that has the potential to cause effects on historic properties under 36 CFR § 800.3(a), requiring compliance under Title 54 USC § 306108, commonly known as Section 106 of the of the National Historic Preservation Act (NHPA) as amended.

Based on historic properties identification efforts conducted by Dr. Susan Lindstrom, Reclamation consulted with, and received concurrence from, the State Historic Preservation Officer (SHPO) on a finding of no historic properties affected pursuant to 36 CFR §800.4(d)(1). Consultation correspondence between Reclamation and the SHPO has been provided with this cultural resources compliance document for inclusion in the administrative record for this action.

This document serves as notification that Section 106 compliance has been completed for this undertaking. Please note that if project activities subsequently change, additional NHPA Section 106 review, including further consultation with the SHPO, may be required.

Attachments:

Letter: Reclamation to SHPO dated May 14, 2018 Letter: SHPO to Reclamation dated June 12, 2018



United States Department of the Interior

BUREAU OF RECLAMATION Mid-Pacific Regional Office 2800 Cottage Way Sacramento, CA 95825-1898 MAY 1 4 2018

MP-153 ENV-3.00

SPECIAL DELIVERY - HAND DELIVERED

Ms. Julianne Polanco State Historic Preservation Officer Office of Historic Preservation 1715 23rd Street, Suite 100 Sacramento, CA 95816

Subject: National Historic Preservation Act (NHPA) Section 106 Consultation South Tahoe Public Utility District (STPUD) Pressure Reducing Valve (PRV) Supervisory Control and Data Acquisition (SCADA) Project El Dorado County, California (Project #17-LBAO-196.001)

Dear Ms. Polanco:

The Bureau of Reclamation is initiating consultation under Title 54 U.S.C. § 306108, commonly known as Section 106 of the NHPA, and its implementing regulations found at 36 CFR Part 800, for the proposed STPUD PRV and SCADA Project located in El Dorado County (Figure 1, Enclosure 1). Reclamation is proposing to award Small-Scale Water Efficiency Projects funds to the STPUD to assist with this project. The award of Federal funding constitutes an undertaking as defined in 36 CFR § 800.16(y) and is a type of activity that has the potential to cause effects on historic properties under 36 CFR § 800.3(a). We are entering into consultation with you on this undertaking and are notifying you of our finding of no historic properties affected pursuant to 36 CFR § 800.4(d)(1).

The STPUD system is divided into pressure zones with remote PRV Stations located in buried vaults either in, or adjacent to, a roadway (Figure 2, Enclosure 1). The PRV Stations currently do not have a power source and cannot be monitored remotely. STPUD is currently unable to monitor water delivery into the zones for distribution or to monitor breaks in the system for emergency response. The options for instrumentation and data transmission from remote PRV Stations are limited without electrical power. Data transmission to the STPUD District Headquarters is problematic due to limited cellular network availability, severe weather, extreme topography, and extensive tree cover. The proposed project would improve system reliability by using SCADA real-time monitoring capabilities at the new remote PRV Stations.

The proposed PRV and SCADA replacement project would require trenching at 19 locations into existing paved roads and the adjacent right-of-way for the installation of electrical conduit to electrical control boxes and utility vaults. Each PRV location would require the following:

installation of a digital flow meter, digital suction and discharge pressure gauge, an off-grid power supply and storage (may vary at each site); modification or replacement of existing vault structures; piping and valves to accommodate new instruments; and integration of data, status and alarm signals into the existing SCADA system. The lands surrounding the project area are characterized by single-family residences and rural open space.

Reclamation determined that the area of potential effects (APE) includes all project-related activities as described above. The vertical APE would be a maximum of 3 feet deep for the electrical conduit runs. The horizontal APE would be 12 inches wide and be of varying lengths, with the longest anticipated conduit run being 180 feet. Equipment and materials would be staged on the existing paved roads. The 2.2-acre project area is located in multiple sections (refer to Enclosure 2).

Efforts to identify historic properties in the APE were conducted by Dr. Susan Lindstrom on behalf of STPUD. The results of these efforts are documented in the enclosed cultural resources inventory reports (Lindstrom 2017, 2018, Enclosure 3). Dr. Lindstrom conducted background research; a records search at the North Central Information Center at California State University, Sacramento; and a Sacred Lands File search with the Native American Heritage Commission; and performed an intensive archaeological inventory of the APE. No historic properties were identified in the APE through these efforts. The potential for effects to archaeological resources was determined to be minimal, given the low likelihood for intact subsurface deposits at the proposed installation points, due to previous disturbance associated with road and residential house construction.

Reclamation identified the Washoe Tribe of Nevada and California as a tribe who might attach religious and cultural significance to historic properties within the APE, pursuant to the regulations at 36 CFR § 800.3(f)(2). To date, Reclamation has not received a response from the tribe. If any Native American concerns are subsequently raised, Reclamation will work to address them and notify your office as appropriate.

Based on the above and enclosed information, Reclamation has reached a finding of no historic properties affected for the current undertaking. We invite your comments on our delineation of the APE and the efforts to identify historic properties in the APE. We are also notifying you of our finding of no historic properties affected, pursuant to 36 CFR § 800.4(d)(1). If you have any questions or concerns regarding this project, please contact Mr. Lex Palmer, Architectural Historian, at 916-978-5213 or kpalmer@usbr.gov.

Sincerely

Anastasia T. Leigh Regional Environmental Officer

Enclosures - 3

Edmund G. Brown Jr., Governor

Lisa Ann L. Mangat, Director

State of California • Natural Resources Agency

DEPARTMENT OF PARKS AND RECREATION OFFICE OF HISTORIC PRESERVATION 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

June 12, 2018

In reply refer to: BUR_2018_0515_001

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

Subject: Section 106 Consultation for South Tahoe Public Utility District (STPUD) Pressure Reducing Valve (PRV) Supervisory Control and Data Acquisition (SCADA) Project El Dorado County, California (Project #17-LBAO-196.001)

Dear Ms. Leigh:

The State Historic Preservation Officer (SHPO) received on May 15, 2018 your letter initiating consultation on the above referenced undertaking to comply with Section 106 of the National Historic Preservation Act of 1966 (as currently amended) and its implementing regulations found at 36 CFR Part 800. The Bureau of Reclamation (Reclamation) is proposing to award Small-Scale Water Efficiency Projects funds to the STPUD to assist in providing power to monitor water delivery to PRV pressure zone stations. Reclamation requests comments on delineation of the Area of Potential Effects (APE), appropriateness of historic properties identification efforts, and a finding of *No Historic Properties Affected.* Documents included with the submittal are:

- Enclosure 1: Maps Figure 1: Project Vicinity Map (overlaid County Map); Figure 2: Project APE Map (overlaid general topography map)
- Enclosure 2: 17-LBAO-196.001 Legal Descriptions (A table with township, range, section for the 19 separate loci of the APE [one locus has two meter locations]).
- Enclosure 3: Two Reports:
 - South Tahoe Public Utility District Water Meter Installation Project Cultural Resource Inventory, June 2016 [By: S. Lindstrom, PhD, Consulting Archaeologist, Truckee, CA] [For: South Tahoe Public Utilities District, South Lake Tahoe, CA].
 - South Tahoe Public Utility District 2018 Improvement Project Pine Valley PRV Improvements Cultural Resource Inventory, February 2018 [By: S. Lindstrom, PhD, Consulting Archaeologist, Truckee, CA] [For: South Tahoe Public Utilities District, South Lake Tahoe, CA].

The STPUD system is divided into pressure zones with remote PRY Stations located in buried vaults either in, or adjacent to, a roadway. The PRY Stations lack a power source and cannot be monitored remotely to check water delivery into the zones for distribution or to monitor breaks in the system for emergency response. Data transmission to the STPUD District Headquarters is problematic due to limited cellular network availability, severe weather, extreme topography, and extensive tree cover.

The proposed project is designed to improve system reliability by using SCADA real-time monitoring capabilities at the new remote PRY Stations. The replacement project requires trenching at nineteen (19) locations into existing paved roads and the adjacent right-of-way to install electrical conduit to electrical control boxes and utility vaults. Each PRY location requires the following items:

Ms. Anastasia T. Leigh June 12, 2018 Page 2

installing a digital flow meter; add a digital suction and discharge pressure gauge, connect to an off-grid power supply and storage (may vary at each site); modifying or replacing existing vault structures; adding piping and valves to accommodate new instruments; and integrating data, status and alarm signals into the existing SCADA system. The surrounding lands are characterized by single-family residences and rural open space.

The area of potential effects (APE) includes all described project-related activities, is located in multiple sections and is about 2.2 acres in total. The horizontal APE is 12 inches wide and of varying lengths, with the longest estimated conduit run being 180 feet. The vertical APE is a maximum of 3 feet deep for the electrical conduit runs. Equipment and materials are to be staged on existing paved access roads.

Identification efforts were conducted by Dr. Susan Lindstrom on behalf of STPUD. Results of the efforts are documented in the submitted cultural resources inventory reports (Lindstrom 2017, 2018) and include background research; a records search; and a Sacred Lands File search with the Native American Heritage Commission. Pedestrian survey was conducted multiple times, most recently on December 15, 2017 with negative results. No historic properties were identified in the APE through these efforts. Given the previous disturbance from road and residential house construction, there is minimal potential for affecting any unknown archaeological resources.

Reclamation contacted the Washoe Tribe of Nevada and California as a tribe who might attach religious and cultural significance to historic properties within the APE and asked for assistance. To date, no response has been received. Should any Native American concerns be subsequently raised, Reclamation will work to address them and make notifications as required.

Based on a review of past land use, and the scope of current project activities, Reclamation finds that the project is a *no historic properties affected* outcome and seeks concurrence with this effect finding. After documentation review, the following comments are offered.

- Pursuant to 36 CFR 800.4(a)(1), there are no objections to the discontinuous APE of nineteen (19) locations as defined and illustrated (Figure 2 & Enclosure 2-table);
- Pursuant to 36 CFR 800.4(b), Reclamation has documented a reasonable and good faith effort to appropriately identify historic properties;
- Reclamation finds that the proposed undertaking is a no historic properties affected outcome. Pursuant to 36 CFR 800.4(d)(1), I do not object.

Please be advised that under certain circumstances, such as unanticipated discovery or a change in project description, Reclamation may have additional future responsibilities for this undertaking under 36 CFR Part 800 (as currently amended). Should you require further information, please contact Jeanette Schulz at <u>Jeanette.Schulz@parks.ca.gov</u> or her desk phone is: (916) 445-7031.

Sincerely,

Julianne Polanco State Historic Preservation Officer