

RECLAMATION

Managing Water in the West

Environmental Assessment: 18-10-MP

Tulare Irrigation District Supervisory Control and Data Acquisition System Modernization Project



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

April 2018

Mission Statements

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

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

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List of Acronyms and Abbreviations

District	Tulare Irrigation District
EA	Environmental Assessment
ITA	Indian Trust Assets
NHPA	National Historic Preservation Act
Project	Tulare Irrigation District SCADA Modernization Project
Reclamation	U.S. Bureau of Reclamation
SCADA	Supervisory Control and Data Acquisition

1. Introduction

This Environmental Assessment (EA) was prepared by the Bureau of Reclamation (Reclamation) to examine the potential direct, indirect, and cumulative effects to the affected environment associated with providing a WaterSMART Small-scale Water Efficiency Grant to Tulare Irrigation District (District). The grant funding would be used to financially assist the District with the migration of software from 16 of the District's existing Supervisory Control and Data Acquisition (SCADA) computer stations to the District mainframe server, located in the District Administration Office within the District service area boundary (Project) (Figure 1-1).

1.1 Need for the Proposal

Presently, the District operates 16 of their SCADA control facilities with an outdated interface platform. The project intends to migrate 16 control facilities to a modern platform that will enhance real-time visualization of the District distribution system, provide alarms in the event of emergencies, provide automated controls to facilitate constant flow, and eliminate potential cyber security threats. This system will allow for real-time data to inform water management decisions and automated controls that will yield more flexibility in meeting grower demands and advancements in water conservation. Implementation of this project will also allow the District to more efficiently utilize SCADA acquired data, including enhancing the ability to monitor recharge capacity at District recharge basins.

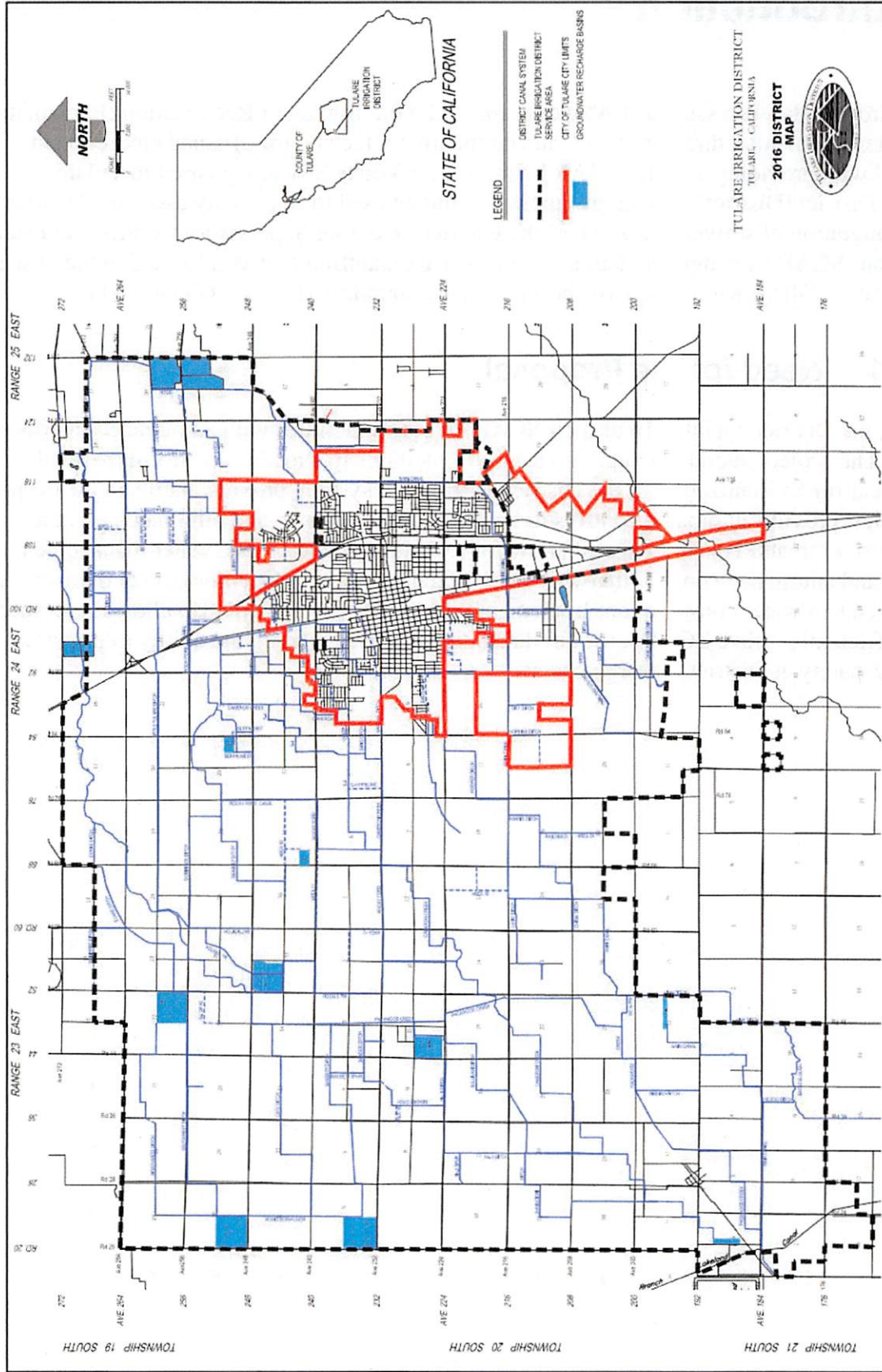


Figure 1-1. District Location Map

2. Alternatives Including the Proposed Action

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

2.1 No Action Alternative

Reclamation would not award the District with a grant. The District would continue to operate and maintain their distribution system under existing conditions.

2.2 Proposed Action

Reclamation proposes to award the District with a grant to fund a portion of the Project. Funds awarded through this grant combined with District funds will allow the District to upgrade its SCADA interface software from an older interface platform to a modern system. Funds will be used to implement new control and monitoring components beyond the existing system and include remote hand-held SCADA monitoring tablets. The District intends to add the following features while upgrading to the new platform:

- Monitoring sites will be programmed to output data into Microsoft Excel and Access formats for use in water management decisions.
- A large format screen will be installed in the District water operations department to monitor real-time District flows, levels and other data.
- 12 Microsoft Rugged Surface tablets will be purchased to be utilized by District ditchtenders and District staff to allow for real-time visualization of data.
- The system will be designed to produce an annual report of key data that will allow for observation and improvement in water management decisions and give users remote access via remote computer, tablet, or cell phone with the appropriate security clearance and access permissions.

The migration of existing Lookout systems to the Ignition platform will allow the District to more efficiently utilize the data the SCADA system monitors. The Ignition system will be designed to allow data to be recorded, stored, and backed up on the District mainframe server.

The proposed work will involve the migration of software and programming from the District existing SCADA computer station to the District mainframe server, which is housed in the District administration office. The District will not conduct any work on federal property or facilities. This project only includes the replacement of radios and communication equipment within existing housings (Figure 2-1), and does not involve physical changes or construction. The District anticipates that the project will take approximately 8-9 months of intensive SCADA programming and computer work by the SCADA consultant and District staff.

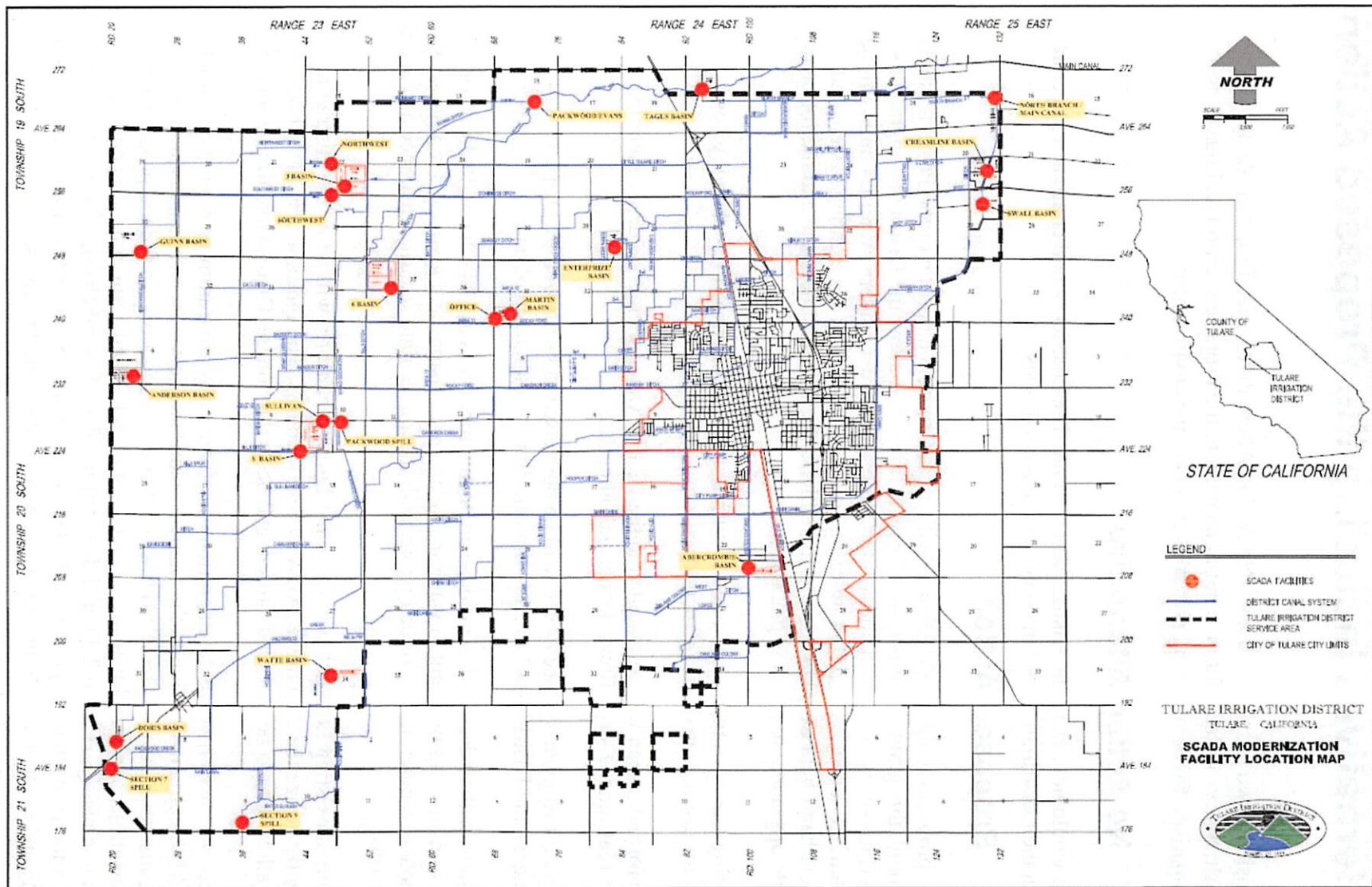


Figure 2-1. Tulare Irrigation District SCADA location sites, including those not under consideration for this grant award.

3. Environmental Consequences

3.1 Required Resource Discussions

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

3.1.1 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the U.S. for Indian Tribes or individual Indians. Indian reservations, Rancherias, and Public Domain Allotments are common ITAs in California. The nearest ITA is the Santa Rosa Reservation, approximately 16 miles west of the Project locations. The Proposed Action does not have the potential to affect ITA (See Appendix A).

3.1.2 Indian Sacred Sites

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

3.1.3 Environmental Justice

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

3.1 Environmental Consequences of the No Action Alternative

Under the No Action Alternative, Reclamation would not award the District with a WaterSMART grant. Although it is possible the District may find alternate sources for funding the Proposed Action, for the purposes of this EA, the consequences of Reclamation not providing funding for the Proposed Action would result in no software upgrades. This may result in the District not being able to implement the Proposed Action and increase water management efficiency. The District would continue to operate 16 of their SCADA control facilities using the Lookout interface platform and would not implement new control monitoring components to allow for real-time visualization.

3.2 Environmental Consequences of Funding the Proposed Action

The proposed action includes the installation of software, replacement of radios and communications equipment, and incorporates the use of digital tablets, which does not require any construction or physical modification of facilities. The installation and use of the new equipment will not increase operations or maintenance activities at the SCADA facilities. The proposed action will increase water management efficiency by providing real time data acquisition and a timelier implementation of water management decisions. The District does not anticipate any negative impacts to the surrounding environment, cultural resources, protected or endangered species.

3.3 Cumulative Effects

According to the 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 reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Because there are no adverse effects from the action, there are no cumulative effects to consider.

4. Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation consulted and coordinated with Tulare Irrigation District.

4.2 Endangered Species Act

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

The proposed action does not include ground disturbance or construction activities. It also does not result in changes in operations and maintenance activities from current levels. Therefore, there would be no effect to Federally listed species or their critical habitat. Consequently, Reclamation determined consultation under Section 7 is not necessary.

4.3 National Historic Preservation Act

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

The activities associated with the Proposed Action would include no ground disturbance, no change in land use, or a change in the use of existing conveyance infrastructure. Reclamation 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 B).

Appendix A Indian Trust Assets Compliance

Indian Trust Assets Request Form (MP Region)

Indian Trust Assets Request Form (MP Region)

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

Date:

Requested by <small>(office/program)</small>	Gwen Robson
Fund	17XR0680A1
WBS	RY.30180013.TIDCA03
Fund Cost Center	RR02015200
Region # (if other than MP)	MP
Project Name	Tulare Irrigation District SCADA Modernization Project
CEC or EA Number	18-10-MP
Project Description (attach additional sheets if needed and include photos if appropriate)	Reclamation proposes to award the Tulare Irrigation District with a grant to upgrade its Supervisory Control and Data Acquisition interface software from an older (Lookout) interface platform to a modern system called the Ignition platform. Funds will also be used to implement new control and monitoring components beyond the existing system and include remote hand-held Supervisory Control and Data Acquisition monitoring tablets.

<p>*Project Location (Township, Range, Section, e.g., T12 R5E S10, or Lat/Long cords, DD-MM-SS or decimal degrees). Include map(s)</p>	<p>Long: -119.44 Lat: 36.15</p>
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 Signature

Gwen Robson
 Printed name of preparer

2-7-2018
 Date

ITA Determination:

The closest ITA to the Proposed Action is The Santa Rosa Indian Community which is about 16 miles to the WEST. (See attached image).

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


 Signature

Kevin Conroy
 Printed name of approver

2-08-2018
 Date

Appendix B NHPA Cultural Resources Compliance

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

MP-153 Tracking Number: 17-SCAO-197.001

Project Name: Tulare Irrigation District SCADA System Modernization Project

NEPA Document: EA-18-10-MP

NEPA Contact: Gwen Robson, Natural Resources Specialist

MP 153 Cultural Resources Reviewer: Gary Scholze, Archaeologist

Date: February 7, 2018



Reclamation is proposing to approve funding to Tulare Irrigation District (District) for a WaterSMART small-scale water efficiency grant. The grant funding would be used to financially assist the District with the migration of software from the District's existing Supervisory Control and Data Acquisition (SCADA) computer station to the District mainframe server, located in the District Administration Office within the District service area boundary. The Project includes the installation of software and implementation of digital tablets, which does not require any construction or physical modifications of facilities in order to complete the Proposed Action.

Reclamation determined that the proposed action is the type of undertaking that does not have the potential to cause effects on historic properties, should such properties be present, pursuant to 36 CFR § 800.3(a)(1). As such, Reclamation has no further obligations under 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA).

Reclamation cultural resources staff has reviewed the draft Environmental Assessment for this project and agrees the current language in the EA is sufficient for cultural resources analysis. No additional language will be provided.

This document is intended to convey the completion of the NHPA Section 106 process for this undertaking. I concur that this action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by Reclamation (LND 02-01) (43 CFR 46.215 (g)). 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.