

# RECLAMATION

*Managing Water in the West*

## FINDING OF NO SIGNIFICANT IMPACT

### Tulare Irrigation District – Canal Modernization Project


FONSI 12-19-MP

Recommended by:

  
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U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Regional Office  
Sacramento, California

April 2013

## **Introduction**

In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, the Mid-Pacific Regional Office of the Bureau of Reclamation (Reclamation) has determined that awarding Tulare Irrigation District (TID) with federal grant funding for the district's Canal Modernization Project (Project) is not a major federal action that will significantly affect the quality of the human environment and an Environmental Impact Statement is not required. This Finding of No Significant Impact (FONSI, 12-19-MP) is supported by the attached Environmental Assessment (EA), *Tulare Irrigation District Canal Modernization Project*, which is hereby incorporated by reference.

## **Proposed Action**

Reclamation proposes to award TID with a grant to fund a portion of the Project. The Project would involve making key site-specific improvements to TID's existing distribution system, consisting of installation of automated gates and flow measurement devices. The Project areas are located within TID's service area boundary in Tulare County, California (refer to Figure 2-1 in the EA). The Proposed Action includes avoidance and minimization measures, as noted in Section 2.2.1 of the EA, to avoid and/or reduce potential impacts to special-status biological resources.

## **Findings**

Reclamation's determination that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the referenced EA and is summarized in the following:

### **Indian Trust Assets (ITA)**

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.

### **Indian Sacred Sites**

The Proposed Action is not on federal lands, and will not affect and/or prohibit access to and ceremonial use of Indian sacred sites.

### **Environmental Justice**

There are no economically disadvantaged or minority populations that would be disproportionately affected by the Proposed Action.

### **Biological Resources**

Preconstruction surveys will be conducted for presence or signs of Western burrowing owl and San Joaquin kit fox. If surveys do not find presence or signs of either species, then it is unlikely that the species will be within the action area and will be affected by construction activities.

Reclamation and TID would coordinate with the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service (USFWS) if burrowing owl are present to avoid and/or minimize potential impacts to the species.

Taking into consideration the avoidance and minimization measures that will be implemented as part of the Proposed Action noted in Section 2.2.1 of the EA, and that SJKF are active at night when there will be no construction activities, Reclamation determined that SJKF is not likely to be adversely affected. In a memo dated January 17, 2013, the USFWS concurred with Reclamation's determination.

### **Cultural Resources**

The Proposed Action will occur within previously identified disturbed contexts. Actions to the canals, including the installation of supervisory control and data acquisition equipment, will occur within existing facilities. Reclamation applied the criteria of adverse effect and determined that the appropriate finding of effect for the project is no adverse effect to historic properties pursuant to 36 CFR Part 800.5(b). Reclamation consulted with the State Historic Preservation Officer on this finding; however, the SHPO did not respond within the 30 day review period as outlined in 36 CFR § 800.5(c) and § (d)(1).

# RECLAMATION

*Managing Water in the West*

**Environmental Assessment**

## **Tulare Irrigation District Canal Modernization Project**

**Agricultural Water Conservation and Efficiency Grant  
Grant No. R12AP20039**



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Regional Office  
Sacramento, CA**

**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.

# Section 1 Introduction

This Environmental Assessment (EA) has been prepared by the Bureau of Reclamation (Reclamation) to examine the potential direct, indirect, and cumulative impacts to the affected environment associated with providing federal grant funding to Tulare Irrigation District (TID) for their Canal Modernization Project (Project). The Project areas are located within TID's service area boundary in Tulare County, California (see Figure 2-1).

## 1.1 Need for the Proposal

TID needs to improve their water management capabilities by installing flow meters and automated control structures at targeted areas on their distribution system.

# Section 2 Proposed Action and Alternatives

## 2.1 No Action Alternative

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

## 2.2 Proposed Action

Reclamation proposes to award TID with a grant to fund a portion of the Project. The Project would involve making key site-specific improvements consisting of installation of automated gates and flow measurement devices at the headworks of the Packwood Creek and Evans Canal systems (refer to Figure 2-1 for project locations). More specifically, the Project involves the following TID facilities (refer to Appendix A for site plans and photos):

### **Facility 1 – Packwood Creek / Evans Canal Control Facility**

Install supervisory control and data acquisition (SCADA) monitoring and control station, which will house the programmable logic controller, radio, and electrical equipment to integrate with the existing SCADA control center at the district office. A flow measurement station will be installed on the Evans Canal and the Packwood Creek systems.

### **Facility 2 - Basin #3 Automation**

In order to automate this facility, the district would install:

- A 36" actuated canal gate at the headworks of the Southwest Ditch;
- A 36" actuated canal gate at the headworks of the Northwest Ditch;
- A flow measurement station downstream of the headworks of Southwest Ditch;
- A flow measurement station downstream of the headworks of Northwest Ditch;
- Radio, telemetry equipment, and wiring from measurement stations to existing SCADA control station; and

- Wiring and telemetry equipment from gate actuators to existing SCADA control station.

### **Facility 3 - Basin #6 Automation**

In order to automate this facility, the district would install:

- A 36" actuated canal gate at the release from Regulation Basin #6 to Ditch #6;
- A flow measurement station downstream of the release from Regulation Basin #6 to Ditch #6;
- Radio, telemetry equipment, and wiring from the flow measurement station to the existing SCADA control station; and
- Wiring and telemetry equipment from the gate actuator to the existing SCADA control station.

### **Facility 4 – Packwood Spill Control Facility**

In order to automate this facility, the district would install:

- A water control gate at an existing check structure on Packwood Creek where a lateral takes water to Basin #8;
- A SCADA control station including radio and telemetry equipment to communicate with the existing SCADA control system; and
- Wiring from the water control gate to the SCADA control station.

### **Facility 5 - Basin #8 Automation**

In order to automate this facility, the district would install:

- Water control gate equipment at the headworks of the Sullivan Ditch where Packwood Creek delivers water into Basin #8;
- A flow measurement station downstream of the headworks of Sullivan Ditch;
- A 48" actuated canal gate at the release from Basin #8 to Ditch #8;
- Radio, telemetry equipment, and wiring from the flow measurement station to the existing SCADA control station; and
- Wiring and telemetry equipment from the gate actuator to the existing SCADA Control Station.

### **Facility 6 – Watte Basin Automation**

In order to automate this facility, the district would install:

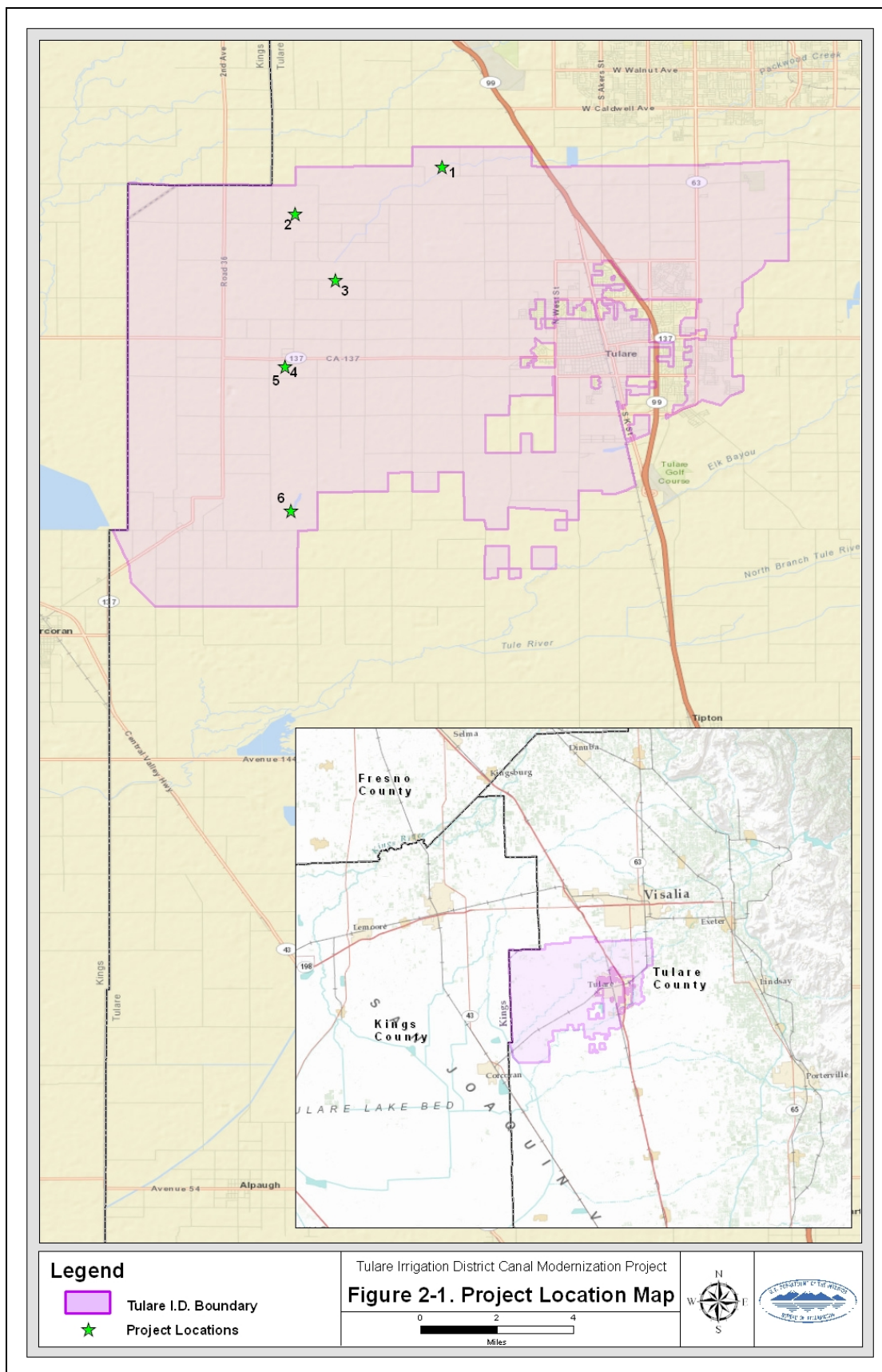
- An automated sluice gate actuator on the existing sluice gate from Watte Basin to Main Canal;
- A flow measurement station downstream of Watte Basin in the Main Canal;
- Radio, telemetry equipment, and wiring from the flow measurement station to the existing SCADA control station; and
- Wiring and telemetry equipment from the gate actuator to the existing SCADA control station.

Ground disturbance for installation of the gates would be minimal, if any, since the gates would be attached to existing concrete structures. Excavation for a typical ramp flume would be approximately 40' in length, up to 36" in depth, and span the entire width of the canal, which is approximately 40'. Excavation for conduits housing electrical and SCADA wiring would be up to 24" deep and 30' long. All of the work involved with the Project would be performed in previously disturbed contexts, regularly-maintained canal infrastructure, and/or concrete structures. Construction activities take approximately 24 months to complete.

### **2.2.1 Avoidance and Minimization Measures**

As part of the Proposed Action, the U.S. Fish and Wildlife Service (USFWS) 2011 *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* will be implemented to avoid and/or minimize potential affects to the San Joaquin kit fox (SJKF).





## Section 3 Affected Environment and Environmental Consequences

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

- **Indian Sacred Sites:** The Proposed Action is not on federal lands, and will not affect and/or prohibit access to and ceremonial use of Indian sacred sites.
- **Indian Trust Assets (ITA):** 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.
- **Environmental Justice:** There are no economically disadvantaged or minority populations that would be disproportionately affected by the Proposed Action.

### 3.1 No Action Alternative

Under the No Action Alternative, there would be no change to existing conditions and current trends of the affected environment.

### 3.2 Proposed Action

#### 3.2.1 Special Status Biological Resources

The California Natural Diversity Database was queried and records indicate SJKF and Western burrowing owl occurrences within a ten-mile radius of the action areas.

This action has the potential to affect Western burrowing owl by directly impacting burrows on canal berms that the species could be using. Pre-construction surveys of the action areas will be conducted to determine the presence or signs of this species. If surveys find presence of Western burrowing owls, Reclamation and TID will coordinate with the California Department of Fish and Wildlife and USFWS to avoid and/or minimize potential impacts to the species due to construction activities. If surveys find no presence or signs of Western burrowing owl within the action areas then the species will not be impacted by the Proposed Action.

This action has the potential to affect SJKF since the species could use the action areas as a migration corridor. Land use around the action areas consist primarily of cultivated farmlands and provide poor habitat for SJKF prey base. Preconstruction surveys of the action areas for presence or signs of SJKF will be conducted. If surveys find presence or signs of SJKF and adverse impacts can't be avoided, then activities at these locations cannot begin until reconsultation with the USFWS has been completed. If surveys do not find presence or signs of SJKF, then it is unlikely that the species will be within the action area and would not be affected by construction activities. When taking into consideration the avoidance and minimization measures that will be implemented as part of the Proposed Action noted in Section 2.2.1, and

that SJKF are active at night when there would be no construction activities, Reclamation determined that the SJKF is not likely to be adversely affected.

### **3.2.2 Cultural Resources**

Between 1951 and 1964, TID conducted a large-scale improvement and extension project on their distribution system, which included enlarging and/or relocating canals, constructing diversion structures, road crossings, check gates, siphons, and installing pipelines. According to TID, many of the features of their system within the project area of potential effects were constructed in the 1950s and 1960s. The Proposed Action will occur within previously identified disturbed contexts. Actions to the canals and laterals, including the installation of supervisory control and data acquisition equipment, will occur within existing facilities. For the purposes of this project, Reclamation assumed that the TID water delivery system was eligible for inclusion in the National Register of Historic Places (NRHP).

Reclamation applied the criteria of adverse effect and determined that the appropriate finding of effect for the project is no adverse effect to historic properties pursuant to 36 CFR Part 800.5(b). In addition, Reclamation applied the Secretary of the Interior Standards for the Treatment of Historic Properties for Rehabilitation and determined that the project met those standards. As a result, Reclamation prepared a cultural resources report and consulted with the State Historic Preservation Officer (SHPO) on the assumed eligibility of the TID water delivery system and the finding of no adverse effect to historic properties pursuant to 36 CFR 800.5(b).

## **3.3 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 (16 USC § 1531 et seq.)**

Section 7 of the ESA 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.

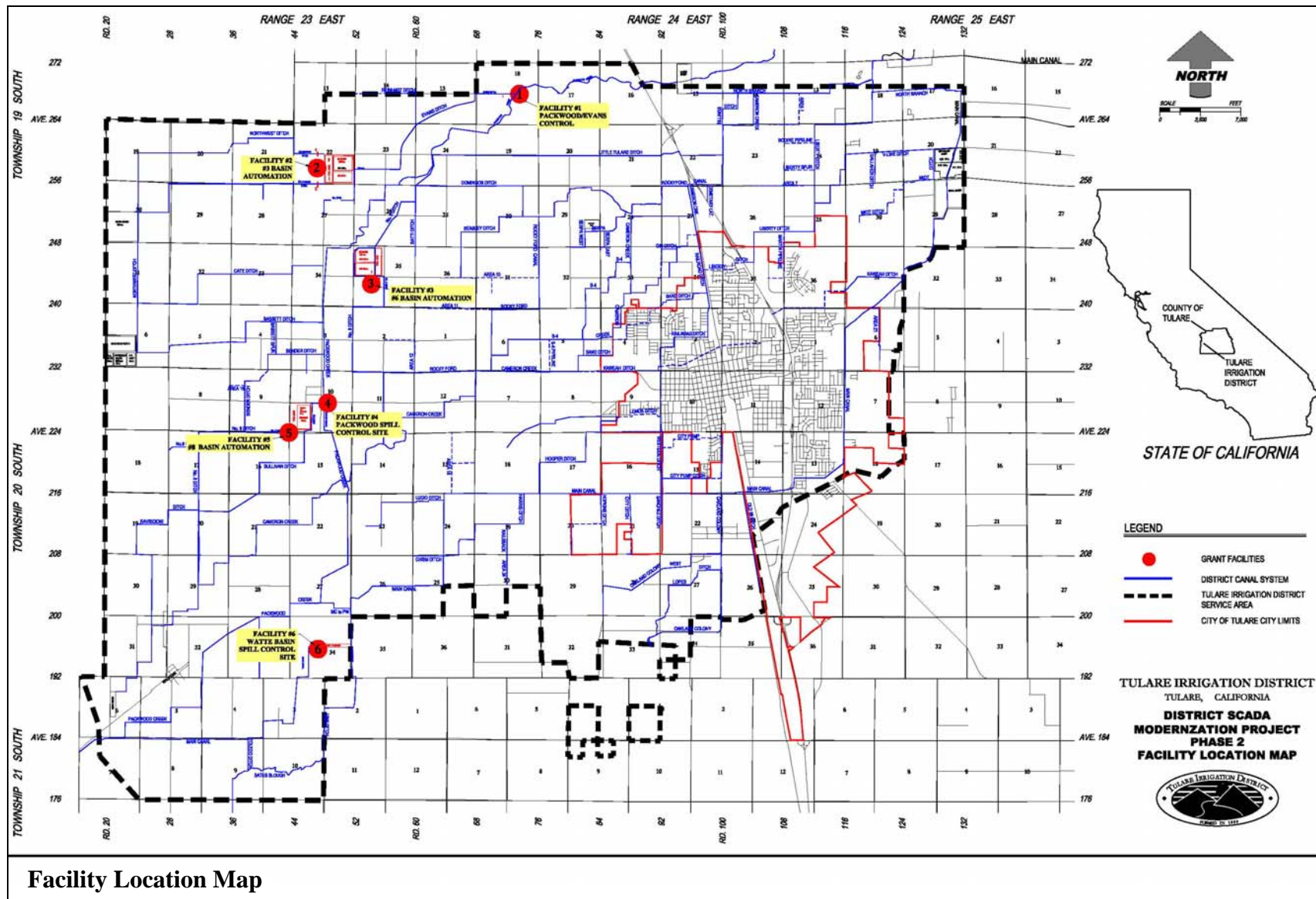
In a memo dated November 16, 2012, Reclamation requested written concurrence from the USFWS that the Proposed Action is not likely to adversely affect the SJKF. Reclamation sent the USFWS an addendum to the memo revising the avoidance and minimization measures via electronic mail on November 28, 2012. The USFWS concurred with Reclamation's determination in a memo dated January 17, 2013.

## **4.2 National Historic Preservation Act (16 USC § 470 et seq.)**

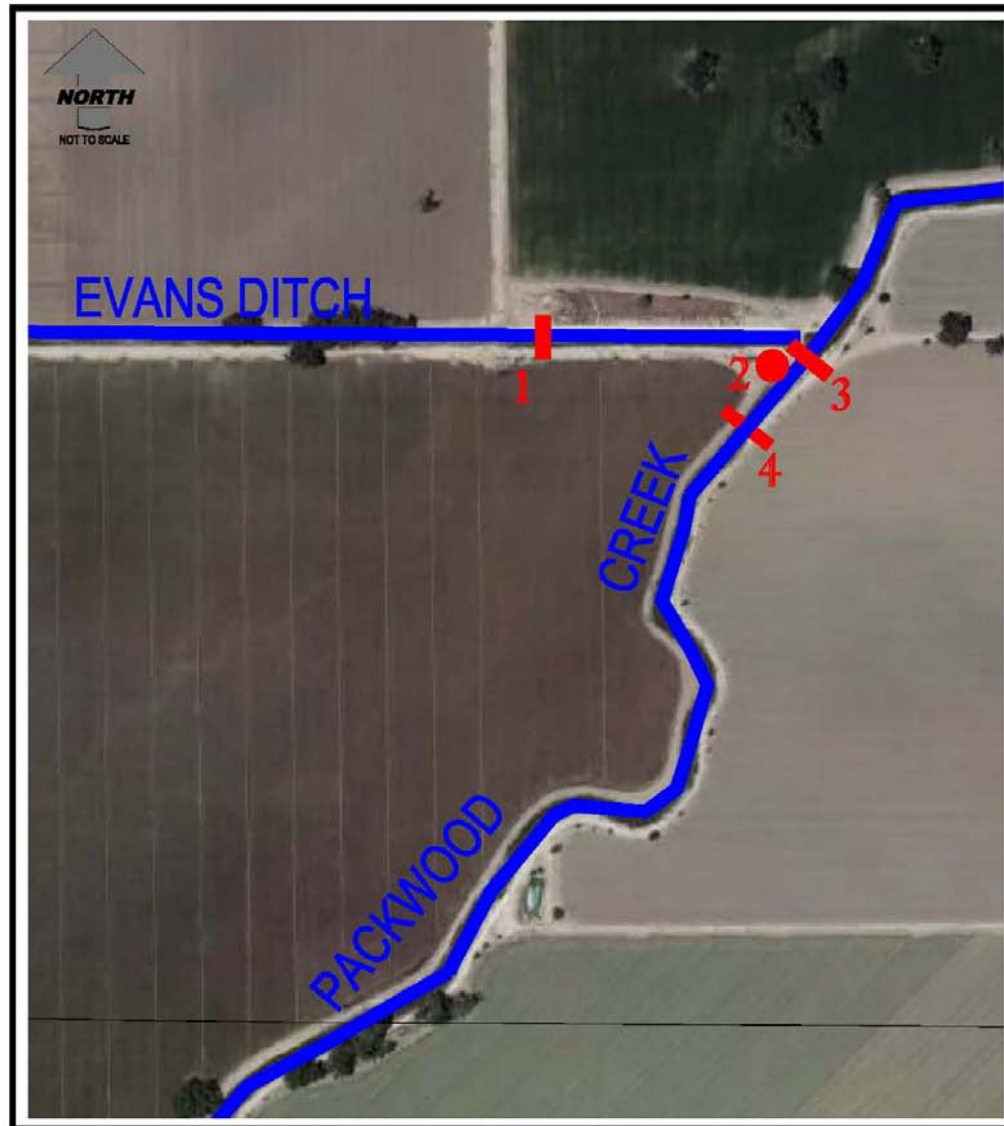
The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470 et seq.), requires that federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties, properties that are eligible for inclusion in the NRHP. The 36 CFR Part 800 regulations implement Section 106 of the NHPA. 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 NRHP.

Reclamation consulted with the SHPO on the finding of no adverse effect to historic properties on February 25, 2013. Pursuant to 36 CFR §800.5(c), the SHPO has 30 days from receipt of a project to review an agency finding. If after 30 days the SHPO has not responded, §800.5(c)(1) states that "...the agency official may proceed after close of the 30 day review period if the SHPO/THPO has agreed with the finding or has not provided a response...and the agency official shall then carry out the undertaking in accordance with paragraph (d)(1) of this section." As SHPO did not respond within the period of time provided to them for review, Reclamation concluded the Section 106 process on April 1, 2013.

# **Appendix A – Map, Site Plans, and Photos**







**LEGEND**

1. EVANS DITCH DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)
2. SCADA CONTROL STATION (CONTROL RTU, RADIO, ANTENNA, VANDALISM ENCLOSURE, SOLAR PANELS)
3. PACKWOOD STRUCTURE (TWO AUTOMATED GATES FOR DOWNSTREAM CONTROL OR UPSTREAM CONTROL) (UP TO 450CFS DOWNSTREAM)
4. PACKWOOD CREEK DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)



SITE NO. 1 EVANS DICTH DOWNSTREAM MEASURING LOCATION



SITE NO. 3 & 4 PACKWOOD STRUCTURE

**Facility 1 – Packwood Creek / Evans Canal Control Facility**



Facility 2 – Basin #3

#### LEGEND

1. SOUTHWEST HEAD 36" CANAL GATE (NEEDS ACTUATOR & PROGRAMMING) EXISTING SCADA CONTROL STATION (RTU, RADIO, ANTENNA, VANDALISM ENCLOSURE, SOLAR PANELS)
2. SOUTHWEST DITCH DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)
3. NORTHWEST HEAD 36" CANAL GATE (NEEDS ACTUATOR & SCADA STATION (RTU, RADIO, PROGRAMMING, ANTENNA, VANDALISM ENCLOSURE, SOLAR PANELS).
4. NORTHWEST DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)



SITE NO 1. SOUTHWEST DITCH HEAD GATE AND SCADA

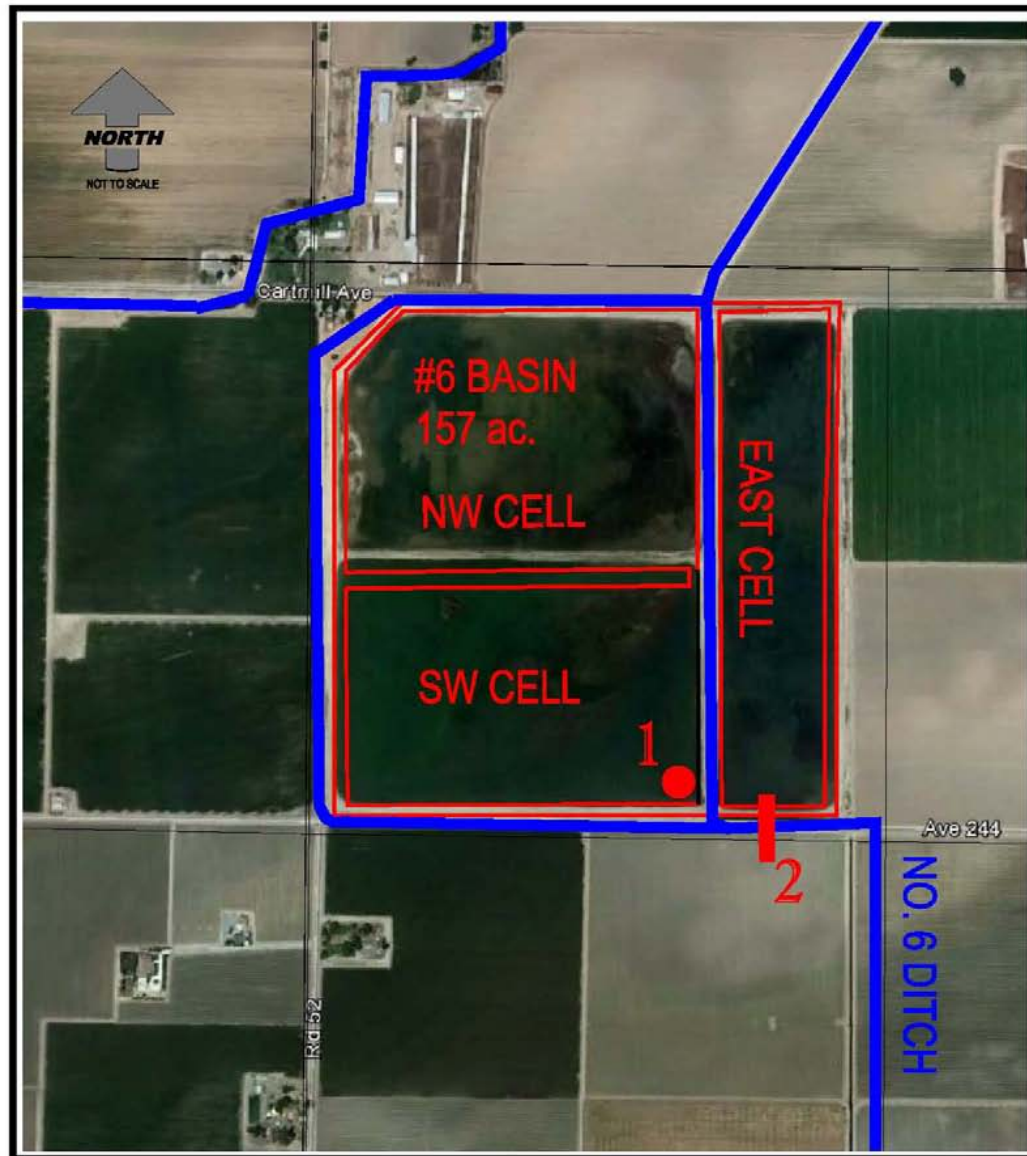


SITE NO 3. NORTHWEST DITCH HEAD GATE



SITE NO 2. SOUTHWEST DITCH DOWNSTREAM





Facility 3 – Basin #6

**LEGEND**

1. BASIN NO. 6 REGULATION AUTOMATION EXISTING 36" CANAL GATE (NEEDS ACTUATOR) (EXISTING SCADA CONTROL STATION RTU, RADIO, ANTENNA, VANDALISM ENCLOSURE, SOLAR PANELS)

2. NO. 6 DITCH DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)



SITE 1. NO. 6 36" CANAL GATE & SCADA



SITE 2. NO. 6 DITCH (RAMP OR LINED)



**Facility 4 – Packwood Spill Control Facility**

**LEGEND**

1. PACKWOOD SPILL CONTROL FACILITY  
EXISTING 30" CANAL GATES (TWO  
AUTOMATED GATE FOR DOWNSTREAM FLOW  
CONTROL)
2. PACKWOOD SPILL CONTROL FLOW  
MEASUREMENT STATION FOR FLOW. (RAMP  
FLUME OR LINED SECTION WITH SENSOR)



**SITE #1. PACKWOOD SPILL STRUCTURE  
(TWO 36" GATES)**

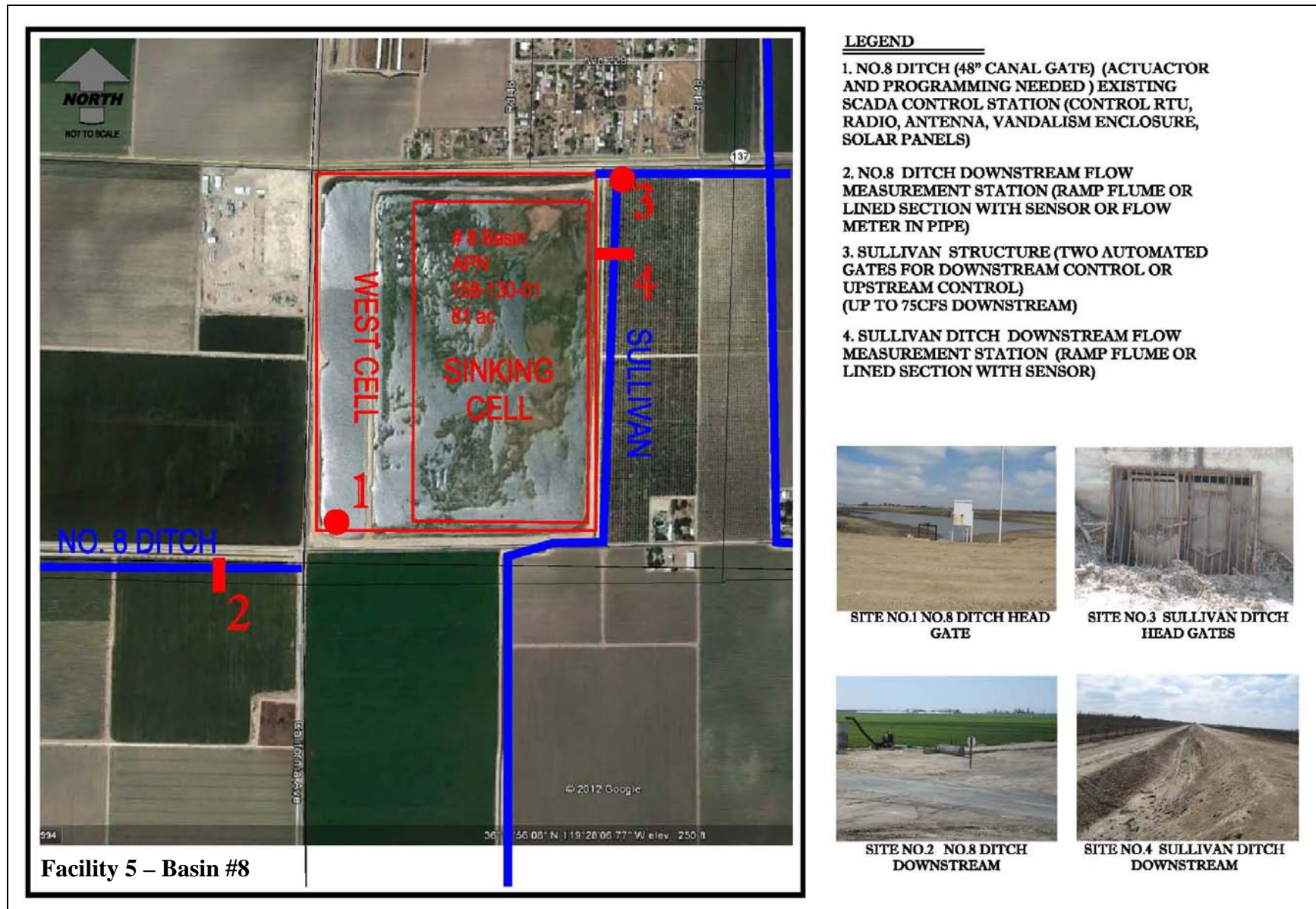


**SITE #1 PACKWOOD SPILL  
STRUCTURE (TWO 36" GATES)**



**SITE #2 PACKWOOD CREEK  
DOWNSTREAM RAMP OR LINED SECTION**







Facility 6 – Watte Basin

**LEGEND**

1. WATTE BASIN SPILL CONTROL (EXISTING SLUICE GATE) (NEEDS ACTUATOR) EXISTING SCADA STATION (RTU, RADIO, ANTENNA, VANDALISM ENCLOSURE, SOLAR PANEL)

2. MAIN CANAL DOWNSTREAM FLOW MEASUREMENT STATION (RAMP FLUME OR LINED SECTION WITH SENSOR)



SITE NO. 1 WATTE BASIN SPILL CONTROL (SLUICE GATE)



SITE NO. 2 MAIN CANAL DOWNSTREAM