

RECLAMATION

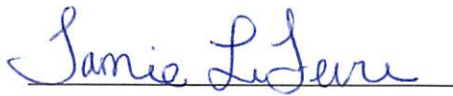
Managing Water in the West

Finding of No Significant Impact

Arvin-Edison Water Storage District Groundwater Well Metering Project

FONSI 19-03-MP

Prepared by:



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Natural Resource Specialist
Mid-Pacific Regional Office

Date: 3/6/19


Reviewed by:



Gene Lee
Water Conservation Specialist
Mid-Pacific Regional Office

Date: 3/6/2019

Approved by:



Richard Woodley
Chief, Resources Division
Mid-Pacific Regional Office

Date: 3/7/19

1 Background

In accordance with the National Environmental Policy Act of 1969, as amended, the Bureau of Reclamation (Reclamation) prepared an environmental assessment to analyze impacts of providing funding to Arvin-Edison Water Storage District (AEWSD) through the Agricultural Water Use Efficiency Program. The funding would allow AEWSD to install flow meters in 51 wells to quantify groundwater usage.

2 Alternatives Including the Proposed Action

2.1 No Action

Under the no action alternative, Reclamation would not award AEWSD an Agricultural Water Use Efficiency Program grant to purchase and install flow meters. The AEWSD could obtain the \$500,000 from other sources to continue with the project as described. However, if funding cannot be secured, the AEWSD would continue to estimate water usage from on-farm wells from crop and irrigation studies. The no action alternative assumes the AEWSD would not proceed with the project absent Reclamation funding.

2.2 Proposed Action

Reclamation proposes to award AEWSD with an Agricultural Water Use Efficiency Program grant of \$500,000 to purchase and install flow meters in their service area to quantify accurate groundwater usage. Approximately 51 flow meters would be installed on existing farm wells within the AEWSD service area. All devices would be installed above ground using a backhoe for lifting and placing the heavier fittings, small scale mechanical equipment, and hand tools per manufacturer's instructions by AEWSD maintenance staff.

3 Findings

Based on the attached environmental assessment, Reclamation finds that the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment and preparation of an environmental impact statement is not required. The environmental assessment was prepared in accordance with NEPA, Council on Environmental Quality regulations (40 CFR 1500-1508), and Department of the Interior Regulations (43 CFR Part 46); the attached environmental assessment is hereby incorporated by reference. Following are the reasons why the impacts of the proposed action are not significant:

1. The proposed action will not significantly affect public health or safety (40 CFR 1508.27(b)(2)).

2. The proposed action will not adversely affect any districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (40 CFR 1508.27(b)(8). Pursuant to 54 USC § 306108, commonly known as Section 106 of the National Historic Preservation Act, and its implementing regulations at 36 CFR Part 800, Reclamation determined the undertaking would not affect historic properties.
3. The proposed action will not affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).
4. The proposed action will not limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO 13007 and 512 DM 3).
5. The proposed action will not significantly impact natural resources and unique geographical characteristics such as historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); flood plains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3)).
6. The proposed action will not have possible effects on the human environment that are highly uncertain or involve unique or unknown risks (40 CFR 1508.27(b)(5)).
7. The proposed action will neither establish a precedent for future actions with significant effects nor represent a decision in principle about a future consideration (40 CFR 1508.27(b)(6)).
8. There is no potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).
9. The proposed action will not have significant cumulative impacts (40 CFR 1508.27(b)(7)).
10. The proposed action will not significantly affect listed or proposed threatened or endangered species (40 CFR 1508.27(b)(9)).
11. Implementing the proposed action will not disproportionately affect minorities or low-income populations and communities (EO 12898).

RECLAMATION

Managing Water in the West

Environmental Assessment
19-03-MP

Arvin-Edison Water Storage District Groundwater Well Metering Project

Agricultural Water Conservation and Efficiency Grant
Grant No. R15AP00157



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

January 2019

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

AEWSD	Arvin-Edison Water Storage District
AFY	acre-feet per year
Air Basin	San Joaquin Valley Air Basin
GSP	Groundwater Sustainability Plan
ITA	Indian Trust Assets
Program	Agricultural Water Conservation and Efficiency Program
Reclamation	Bureau of Reclamation
SHPO	State Historic Preservation Officer
SJVAPCD	San Joaquin Valley Air Pollution Control District

Section 1 Introduction

In conformance with the National Environmental Policy Act of 1969, Council on Environmental Quality regulations (40 CFR 1500-1508), and Department of the Interior Regulations (43 CFR Part 46), the Bureau of Reclamation (Reclamation) prepared this environmental assessment to evaluate and disclose potential environmental impacts associated with providing funds to Arvin-Edison Water Storage District (AEWSD) to purchase and install water measurement devices in their service area to quantify accurate on-farm groundwater usage. Reclamation would provide \$500,000 through the Agriculture Water Use Efficiency Program (Program). The Program was established to promote water conservation improvements that facilitate on-farm water use efficiency and conservation projects. The AEWSD is located at the southern end of the San Joaquin Valley approximately 15 miles southeast of Bakersfield in Kern County, California.

1.1 Background and Need

AEWSD service area covers approximately 132,000 acres of land, including around 113,000 acres of highly productive irrigated cropland, with a variety of about 50 different annual and permanent high value crops. Nearly half of the 113,000 acres of irrigated cropland receives surface water delivered by the AEWSD and the other half is served by on-farm groundwater extraction wells. AEWSD delivers an average of 141,000 acre feet (AF) of water per year (not including losses) to customers in its surface water service area. The AEWSD also operates 1,800 acres of groundwater recharge facilities.

The AEWSD has an extensive data collection program for its own facilities but does not have access to actual water usage data from on-farm wells. Water use from on-farm wells are currently estimated during various activities (i.e. crop/irrigation surveys) and subsequent reports by AEWSD consultants. The installation of water measurement devices funded by the Program grant would fill a data gap by providing real-time groundwater extraction data. The groundwater metering information would help AEWSD establish a Groundwater Sustainability Plan which is required by the Sustainable Groundwater Management Act of 2014. Water measurement devices in themselves do not produce water savings. However, the data they collect is the only means available to determine actual groundwater usage and could provide an enforcement mechanism to practically implement mandates of the Sustainable Groundwater Management Act.

Section 2 Proposed Action and Alternatives

2.1 No Action Alternative

Under the no action alternative, Reclamation would not award AEWSD a Program grant to purchase and install water measurement devices. The AEWSD could obtain the \$500,000 from other sources to continue with the project as described. However, if funding cannot be secured, the AEWSD would continue to estimate water usage from on-farm wells from crop and irrigation

studies. The no action alternative assumes the AEWS D would not proceed with the project absent Reclamation funding.

2.2 Proposed Action

Reclamation proposes to award AEWS D with a Program grant of \$500,000 to purchase and install flow meters in their service area to quantify accurate groundwater usage. AEWS D service area and the location of the wells where the flow meters would be installed are included on Figure 1.

Access and Staging. Access to the sites would be via existing roadways. Vehicles would be parked on existing paved areas and materials will be stored on-site at AEWS D facilities.

Meter Installation. Approximately 51 flow meters would be installed on existing farm wells within the AEWS D service area. Installation of flow meters includes a 150 psi flanged meter tube, propeller type with an indicator displaying both flowrate in cubic foot per second and total acre feet, and discharge piping modifications. All devices would be installed above ground using a backhoe for listing and placing the heavier fittings, small scale mechanical equipment, and hand tools per manufacturer's instructions by AEWS D maintenance staff. The size of the flow meters could vary between 6-inch to 12-inch in diameter.

Maintenance. AEWS D would download and record the data on regular basis. Service life of the flow meters is expected to be 20 years with regular maintenance. Maintenance would be performed by the AEWS D.

Construction Schedule. Installation of the flow meters would occur over a one-year period beginning in 2019. Work hours would be limited to 7 a.m. to 7 p.m. six days a week.

2.3 Environmental Commitments

As part of the Proposed Action, the following environmental commitments would be implemented to avoid and minimize potential effects to the environment:

- There will be no construction work during night time hours.
- Access routes will be along established roads and driveways.
- If flow meter installation occurs during the bird nesting season (February 1 through August 31), the site would be inspected for active bird nests 30 days prior to installation out to a distance of 500 feet, where accessible, by a qualified biologist retained by the AEWS D. If a nest is found at a particular well site, the biologist would identify a suitable construction-free buffer around the nest. The buffer would be maintained until after September 1 or until a qualified biologist has determined the nest is no longer active.

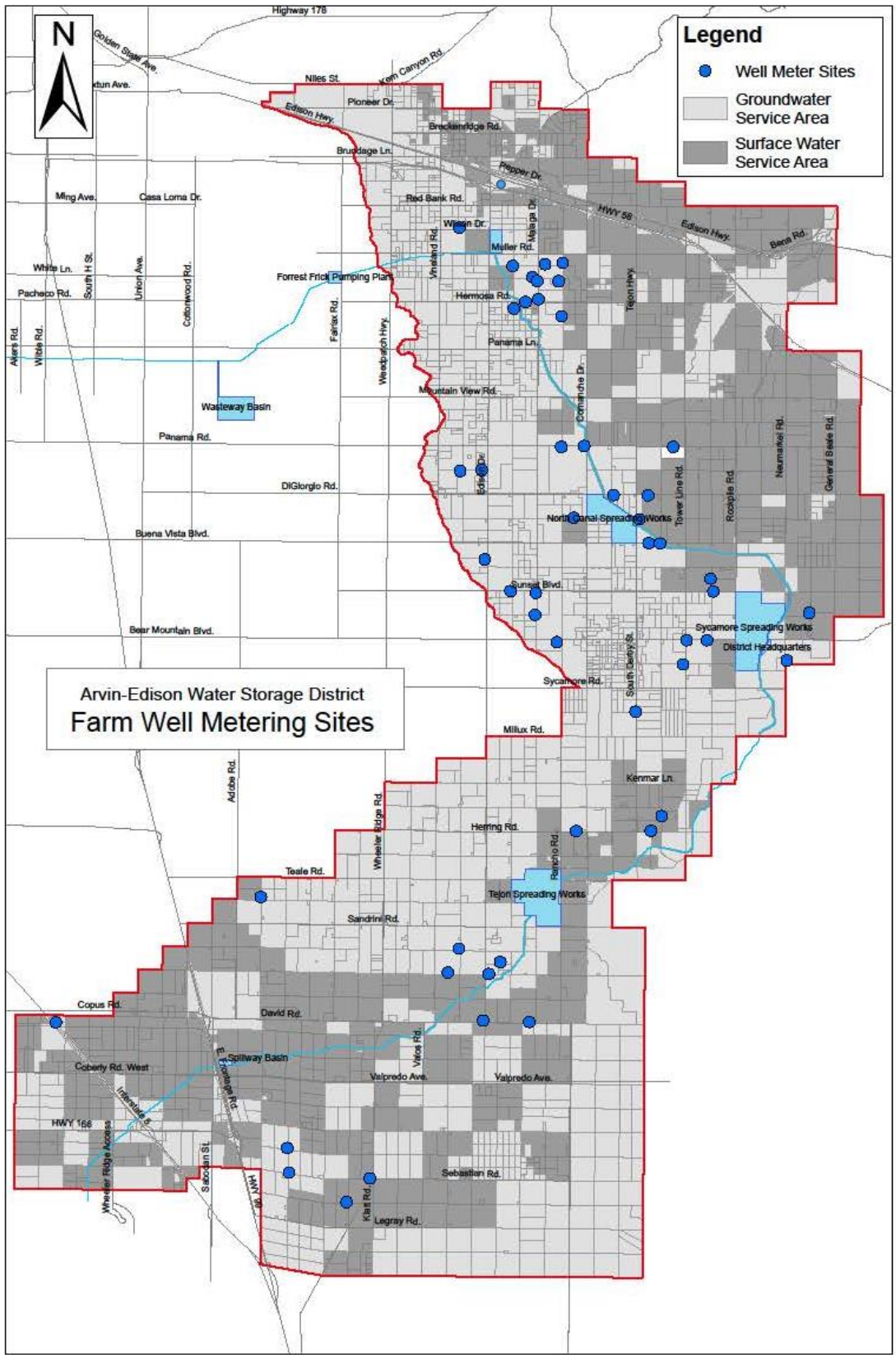


Figure 1. Arvin-Edison Water Storage District Service Area and Meter Installation Sites

Section 3 Affected Environment and Environmental Consequences

3.1 No Action Alternative

Under the no action alternative, Reclamation would not provide \$500,000 to the AEWS. As a result, there would be no change to existing conditions and current trends of the affected environment. Air quality would be influenced by climate and geographic conditions, local and regional emissions from vehicles and farming. Surface water quality would continue to be influenced by urban sources, and agricultural return flows, and groundwater quality would continue to be influenced by existing agricultural operations. There would be no construction related effects to special status species and their associated habitat, and conditions in the project area would remain the same.

3.2 Proposed Action

3.2.1 Resources Not Analyzed in Detail

Department of Interior Regulations, Executive Orders, and Reclamation guidelines require a discussion of Native American 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.

Indian Trust Assets

Indian Trust Assets (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 a Public Domain Allotment, approximately 27 miles northeast of the project location. Given the nature of the proposed action, there will be no effect on 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. Reclamation has not identified adverse human health or environmental effects on any population as a result of implementing the Proposed Action. Therefore, implementing the Proposed Action would not have a significant or disproportionately negative impact on low-income or minority individuals.

3.2.2 Air Quality

The project is located in the San Joaquin Valley Air Basin (air basin) which is under the jurisdiction of the SJVAPCD. The air basin is in non-attainment status for ozone and particulate matter (PM_{2.5}) under both the California and Federal standards, and also is in non-attainment under the California standard for particulate matter (PM₁₀). The air basin is in attainment for all other listed air pollutants under both the California and Federal standards (SJVAPCD 2012).

The proposed action is a short-term installation project and would not involve ground disturbing activities. All 51 flow meters would be installed within 12 months. Reading the flow meters and their maintenance would require AEWS staff to travel around the service area, thereby introducing additional vehicle trips. The activity size and vehicle trips are well below the annual activity levels for small actions screened by the SJVAPCD for California Environmental Quality Act significance (SJVAPCD 2012) and emissions fall below federal general conformity thresholds.

3.2.3 Biological Resources

A special status species list for the affected area was obtained from the U.S. Fish and Wildlife Service on December 19, 2018. In addition, a search of the California Natural Diversity Database was conducted for listed species occurrence documented in AEWS service area. There is no suitable habitat for species that are likely to occur and there is no designated critical habitat near the within AEWS service area. Installation of flow meters would occur at 51 wells within AEWS service area. The well sites are located in highly developed agricultural lands devoid of native vegetation. Due to this lack of native vegetation and suitable habitat within the footprint of the existing wells and implementation of the environmental commitments, the installation and maintenance of the flow meters would not affect listed species or their associated habitat.

Migratory birds such as American robin, common ground-dove, brewer's blackbird, and their habitats are protected under the Migratory Bird Treaty Act, as amended (16 U.S.C 703 et seq.). Implementation of the environmental commitments would reduce impact to migratory birds during installation of the flow meters. The Proposed Action would not change the land use patterns of the cultivated or fallowed fields that provided habitat to birds protected by the Migratory Bird Treaty Act. As a result, the installation and maintenance of the flow meters is not expected to have any effects on migratory birds.

3.2.4 Water Resources

The Proposed Action is located in the San Joaquin Valley Groundwater Basin, Kern County Subbasin (Basin Number 5-22.14). Natural recharge of the basin primarily occurs from stream seepage along the eastern subbasin and from the Kern River. However, recharge of applied irrigation water is the largest contributor to the groundwater basin (DWR, 2006). Changes in water levels in the basin from 1970 to 2000 showed decreases over 25 to 50 feet in the Bakersfield area McFarland/Shafter areas, respectively (DWR, 2006).

The flow information gathered from meters would be used to enforce pumping limits, to better estimate groundwater availability, and improve overall effectiveness of groundwater management. Flow meters would also provide individual farmers information that could help lower operating costs by detecting pump inefficiencies, as well as, giving an accurate portrayal

of water usage, which in turn could lead to changing irrigation practices. The conserved water would allow AEWS D more flexibility in meeting water demands that could be banked for future recovery. Therefore, the project would have a long-term, moderately beneficial effect on water resources available to AEWS D.

The Proposed Action would also help AEWS D establish a Groundwater Sustainability Plan which is required by the Sustainable Groundwater Management Act. The data collected from the flow meters would determine real-time groundwater usage and could provide an enforcement mechanism to practically implement mandates of the Sustainable Groundwater Management Act. Upon implementation of the Groundwater Sustainability Plan, the projected water saving would be approximately 13,750 acre-feet per year.

3.3 Cumulative Effects

According to Council of 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.

There are no adverse impacts associated with implementing the Proposed Action, and therefore there are no cumulative effects to consider.

Section 4 Consultation and Coordination

4.1 Agencies and Persons Consulted

Reclamation consulted and coordinated with the SHPO, pursuant to 54 USC § 306108, commonly known as Section 106 of the NHPA, and its implementing regulation found at 36 CFR Part 800.

4.2 National Historic Preservation Act

The National Historic Preservation Act 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 or properties that are eligible for inclusion in the National Register of Historic Places. The 36 CFR Part 800 regulations implement Section 106 of the National Historic Preservation Act. Compliance with Section 106 follows a series of steps that are designed to identify interested parties, determine the area of potential effects, conduct cultural resource inventories, determine if historic properties are present within the area of potential effects, and assess effects on any identified historic properties.

Reclamation determined the proposed action is the type of Federal undertaking that has no potential to cause effects on historic properties, assuming 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. The proposed action will result in no impacts to cultural resources.

Section 5 References

California Department of Fish and Game (CDFG). 2010. California Natural Diversity Database. Rarefind electronic database. <http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp>. Accessed December 19, 2018.

San Joaquin Valley Air Pollution Control District. Land Use and CEQA. http://www.valleyair.org/transportation/ceqa_idx.htm. Accessed January 10, 2019.

U.S. Fish and Wildlife Service. (USFWS) 2015. IPaC Trust Resource Report http://www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm. Accessed December 19, 2018.

California Department of Water Resources (DWR) 2006. California Groundwater Bulletin 118. San Joaquin Valley Groundwater Basin, Kern County Subbasin. Available: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-B118-Basin-Descriptions/B118_2003_BasinDescription_5_022_14.pdf. Accessed: 1/15/2019.

Appendix A: ITA Concurrence

Indian Trust Assets Request Form

**Please send your request to: Kevin Clancy

Date:

Requested by	Jamie LeFevre, x 5035
Fund	
WBS	
Cost Center	2015200
Region # (if other than MP)	(NA)
Project Name	Arvin-Edison Water Storage District Groundwater Well Metering Project
CEC or EA Number	19-03-MP
Project Description	Reclamation proposes provide \$500,000 through the Agriculture Water Use Efficiency Program to AEWSO retrofitted with 51 wells with flow meters.
*Project Location (Township, Range, Section, e.g., T12 R5E S10, or XY cords)	AEWSO service area is located southeast of the City of Bakersfield in Kern County, California. The city of Arvin is located at 35.188612, -118.834841

*Please include map with request, if available.

ITA Determination:

The closest ITA to the proposed Arvin-Edison Water Storage District Groundwater Well Metering Project is public land allotment (a parcel of land or real estate holding, that may or may not be affiliated with a particular tribe or is in the process of being recorded) which is approximately 27 miles northeast of the project site. (See attached image).

Based on the nature of the planned work it 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 not have any impacts on ITAs.

K. Clancy

Signature

Kevin Clancy

Printed name of approver

01/14/2019

Date

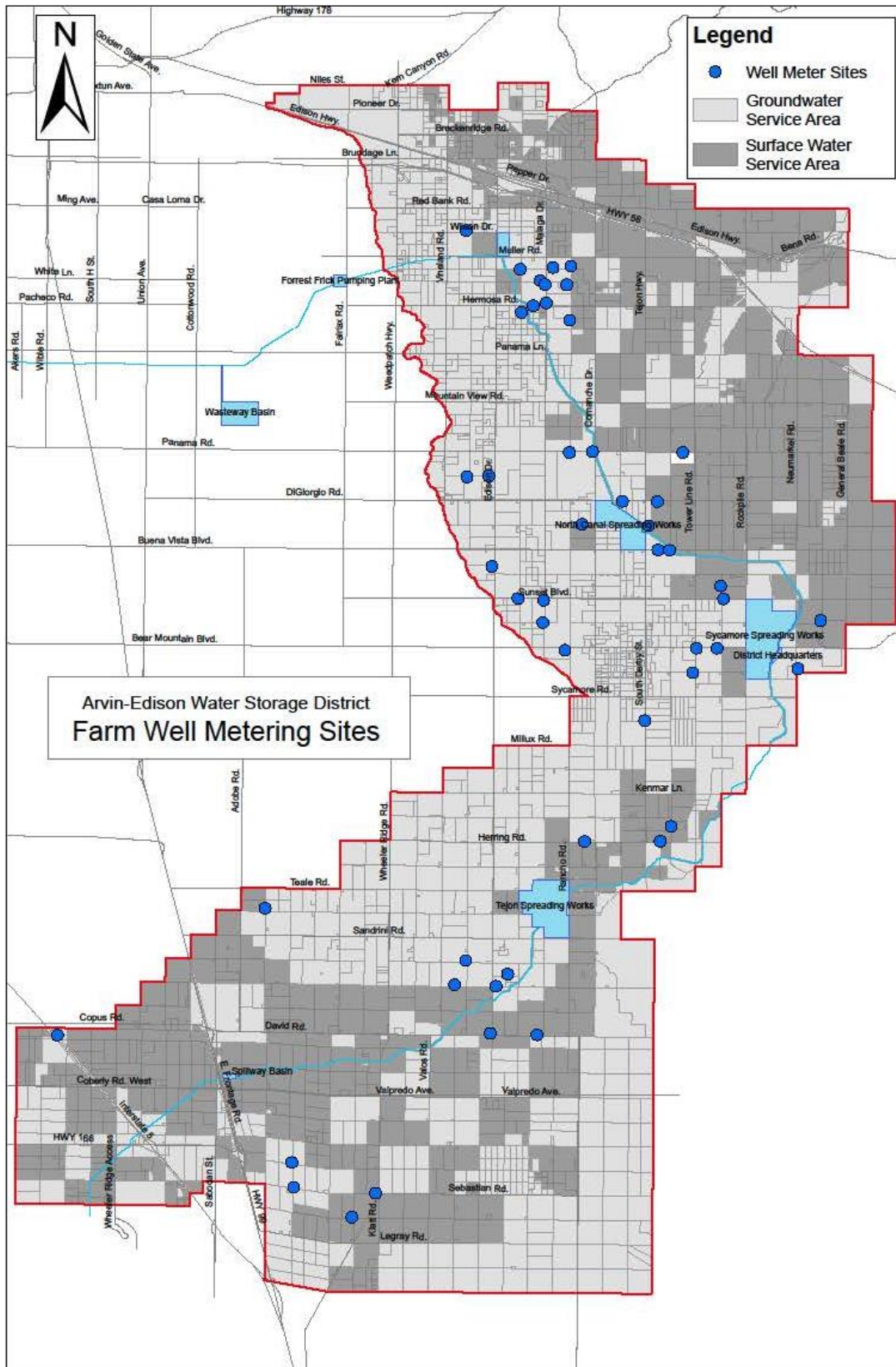
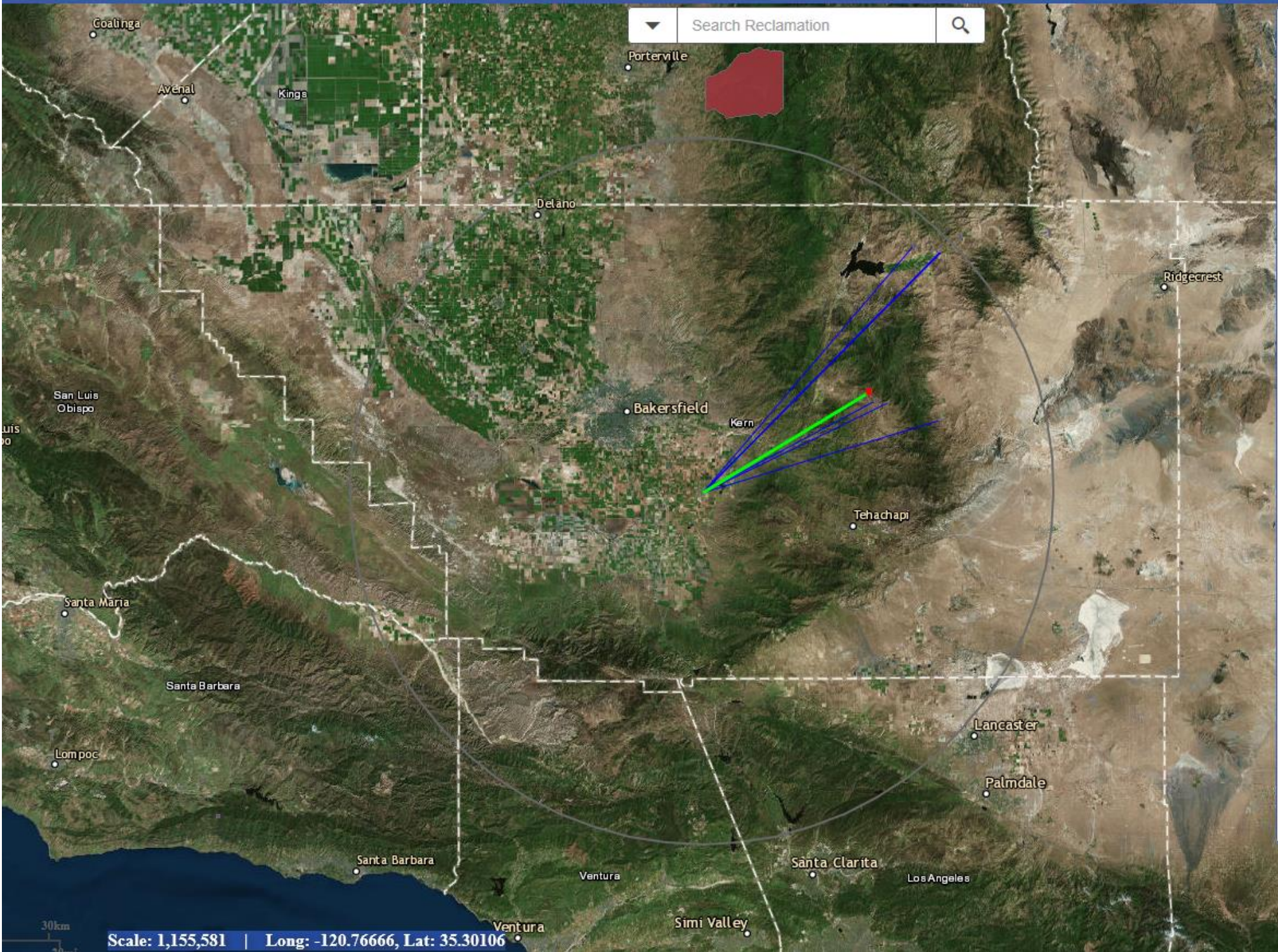


Figure 1. Arvin-Edison Water Storage District Service Area and Meter Installation Sites



Search Reclamation

Native American Lands

Close App

This application locates Native American Lands trust assets within the selected search radius and lists the results with distances.

Step 1. Select a search radius (miles)

50

Step 2. Longitude and Latitude

If you CLICK on the map, the coordinates for the location will be inserted below. Or, you can type them manually.

Longitude:

-118.82833

Latitude:

35.20030

Step 3. Find closest Native American Lands

Search

Distance to closest native american land: 27.43 miles
Name: 50H IN106
Tribe:

Help

Appendix B: Cultural Resources

CULTURAL RESOURCE COMPLIANCE
Reclamation Division of Environmental Affairs
MP-153

MP-153 Tracking Number: 15-SCAO-192

Project Name: Arvin-Edison WSD NRCS Grant

NEPA Document: 19-03-MP

NEPA Contact: Jamie LeFevre, Natural Resources Specialist

MP-153 Cultural Resources Reviewer: Jeremy Foin, Archaeologist

Date: January 10, 2019

Reclamation proposes to award federal funding to the Arvin-Edison Water Storage District (AEWSD) to fund the installation of water measurement devices on 51 privately-owned wells to more accurately quantify end-user consumption rates. Currently, usage rates are estimated using surveys and consultant reports; metering the wells will assist the AEWSD in establishing a more accurate measure of on-farm water usage. All flow metering devices will be installed above ground, and all wells will be accessed via existing roads. Installation is scheduled to occur over a one-year period. Ground disturbance, if any, will be negligible, consisting of possible re-siting of the cyclone fencing surrounding the wells.

Reclamation determined the proposed action is the type of Federal undertaking that has no potential to cause effects on historic properties, assuming 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. The proposed action will result in no impacts to cultural resources.

This document conveys the completion of the cultural resources review and Section 106 process for this undertaking. Please retain a copy of this document with the administrative record for the proposed action. Should the proposed action change, additional review under Section 106, possibly including consultation with the State Historic Preservation Officer, may be required.