

# RECLAMATION

*Managing Water in the West*

## Environmental Assessment

# City of Sacramento Water Meter Retrofits and Expansion of the River Friendly Landscaping Program

15-24-MP

Bay-Delta Program: CALFED Water use Efficiency Grant  
Bureau of Reclamation, Mid-Pacific Region  
Sacramento, California



U.S. Department of the Interior  
Bureau of Reclamation

November 2015

## **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) examines the potential direct, indirect, and cumulative impacts to the affected environment associated with the U.S. Bureau of Reclamation (Reclamation) providing Bay-Delta Restoration Program: CalFed Water Use Efficiency Grant funding to the City of Sacramento (City) for its Residential Water Meter Retrofits and Expansion of the River Friendly Landscaping Program (Project). The water meter portion of the Project will be implemented in three Sacramento residential neighborhoods (Colonial Heights, Elmhurst, and Oak Park). Expansion of the River Friendly Landscaping Program would offer cash rebates to City of Sacramento residents that remove irrigated turf and replace it with approved drought tolerant vegetation. Both components of the Project would take place within the City of Sacramento (see Figure 1).

The City reviewed the Project under California Environmental Quality Act (CEQA) and determined it to be exempt. The project qualifies for CEQA exemption under the Guidelines Section 15061(b)(3), as the Project has no potential for causing a significant effect on the environment.

## 1.1 Need for the Proposal

As the State of California is currently experiencing record-breaking drought conditions, cities need to reduce water consumption and waste to the extent feasible. The City of Sacramento needs funding assistance to retrofit water meters for residential water users and to offer rebates for water customers that replace their water inefficient turf with water wise landscapes. This in turn reduces waste and increases water-use efficiency and supply flexibility. Water meters would enhance citywide monitoring capabilities and improve the City's ability to meet water conservation goals. Reclamation provides CalFed funding to entities with water or power delivery authority that propose projects seeking to conserve and use water more efficiently.

## 1.2 Resources Analyzed in Detail

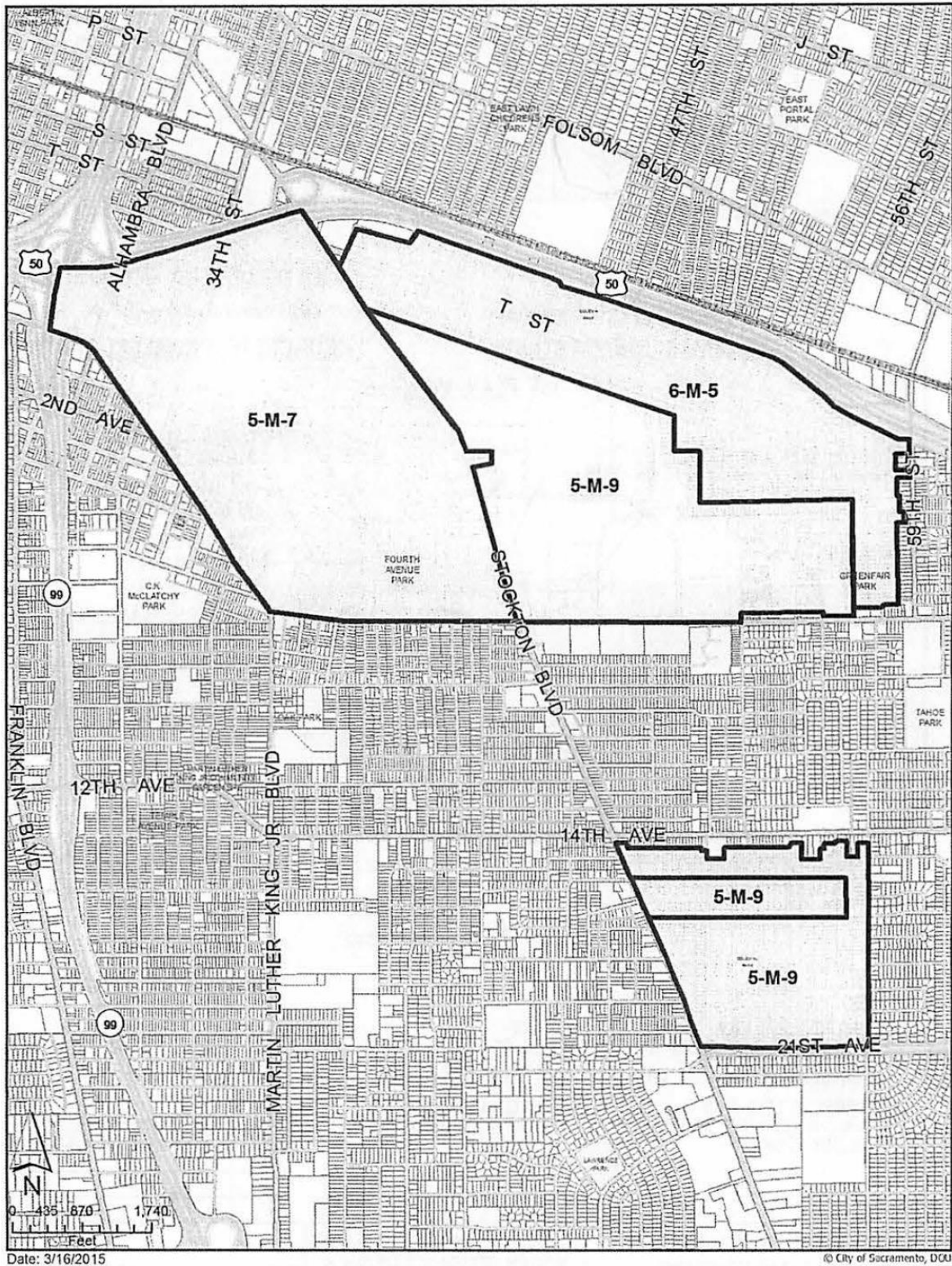
The range of potential impacts assesses whether the decision by Reclamation to partially fund the Proposed Action might cause significant effects on the human environment. This EA will analyze the affected environment of the Proposed Action and No Action Alternative in order to determine the potential impacts and cumulative effects to the following environmental resources:

- Water Resources
- Air Resources

- Cultural Resources

Impacts to the following resources were considered and found to be minor or absent. Brief explanations for their elimination from further consideration are provided below:

- Indian Trust Assets: The Proposed Action does not have the potential to affect Indian Trust Assets (see Appendix A).
- Indian Sacred Sites: The Proposed Action would not be located on or impact federal lands and therefore could not affect Indian sacred sites on federal lands.
- Environmental Justice: The Proposed Action would not have disproportionately negative impacts on low-income or minority individuals or populations within the Project area. Installation of water meters would allow water users to only pay for what they use rather than a flat rate based on number of rooms.
- Special Status Biological Resources: The Project area is within an urban residential area that has been developed over the past 100 plus years. The area has been repeatedly disturbed and is surrounded by urban development on all sides. As such there is no potential habitat for federally threatened or endangered species within the Project area and no potential to affect them.



**Figure 1. Project location map. Elmhurst, Oak Park, and Colonial Heights neighborhoods in Sacramento, CA.**

# Section 2 Proposed Action and Alternatives

## 2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not contribute financial assistance to the City of Sacramento through a program grant for the Project. The City would either need to find another source of funding, or not complete the Project. Water users would continue to receive flat rates based on the number of rooms, and no rebates would be given as an incentive to replace turf with more water-wise landscaping.

## 2.2 Proposed Action

Reclamation proposes to contribute \$750,000 to the City of Sacramento's Project through a CalFed Water Use Efficiency Grant, and the City would supply \$3,022,279 of non-federal funding in support of the Project. As part of this Project the City would install approximately 3,000 water meters on existing residential service connections (previously disturbed land), and would also offer rebates for up to 200,000 ft<sup>2</sup> of turf replacement (Figure 1).

The Project would consist of the following activities:

- Installation of ~3,000, 1-in water meters (Figure 2)
  - Meters would be installed on paved or landscaped surfaces at current service connections
  - Locations are within landscaped, residential neighborhoods
  - Where landscape placements aren't feasible, meters will be placed in sidewalks
  - Each meter installation would require an approximate 3 ft by 3 ft disturbance area
- Implementation of River Friendly Landscaping Incentives
  - The City will develop promotional materials to advertise the program
  - An exterior water use survey will be conducted to assess rebate amounts
  - Rebates of \$1/ft<sup>2</sup> of turf replacement with a maximum rebate of \$1,000 per customer
  - No rebates are provided for labor
  - Turf conversion areas must be irrigated with functional irrigation to be applicable and will be measured by City staff

- Conversions must have a minimum 50% plant coverage (at plant grow out)
  - Plants listed on the City of Sacramento River-Friendly Landscape Rebates Very Low to Medium Water Use Plant List

City staff will compile reports (semi-annual, final project, and two post-project annual reports) to submit to Reclamation. The semi-annual report will contain combined participants' reimbursement invoices. A report will be submitted to Reclamation at conclusion of the project, and then for at least two years (annually) after that. The post-project reports will track the expected versus actual water savings.

Reclamation's action to award the grant may occur in December 2015 or January 2016. The City would begin residential water meter retrofits in early 2016. Installation of the meters is anticipated to take nine months. The River Friendly Landscaping Incentives would also begin early 2016 and continue for two years, or until funds are exhausted.

Construction equipment to be used includes but is not limited to:

- Small excavator
- Backhoe and/or Bobcat
- Saw cutting equipment
- Concrete truck
- Vac-con truck
- Compaction equipment
- Water truck

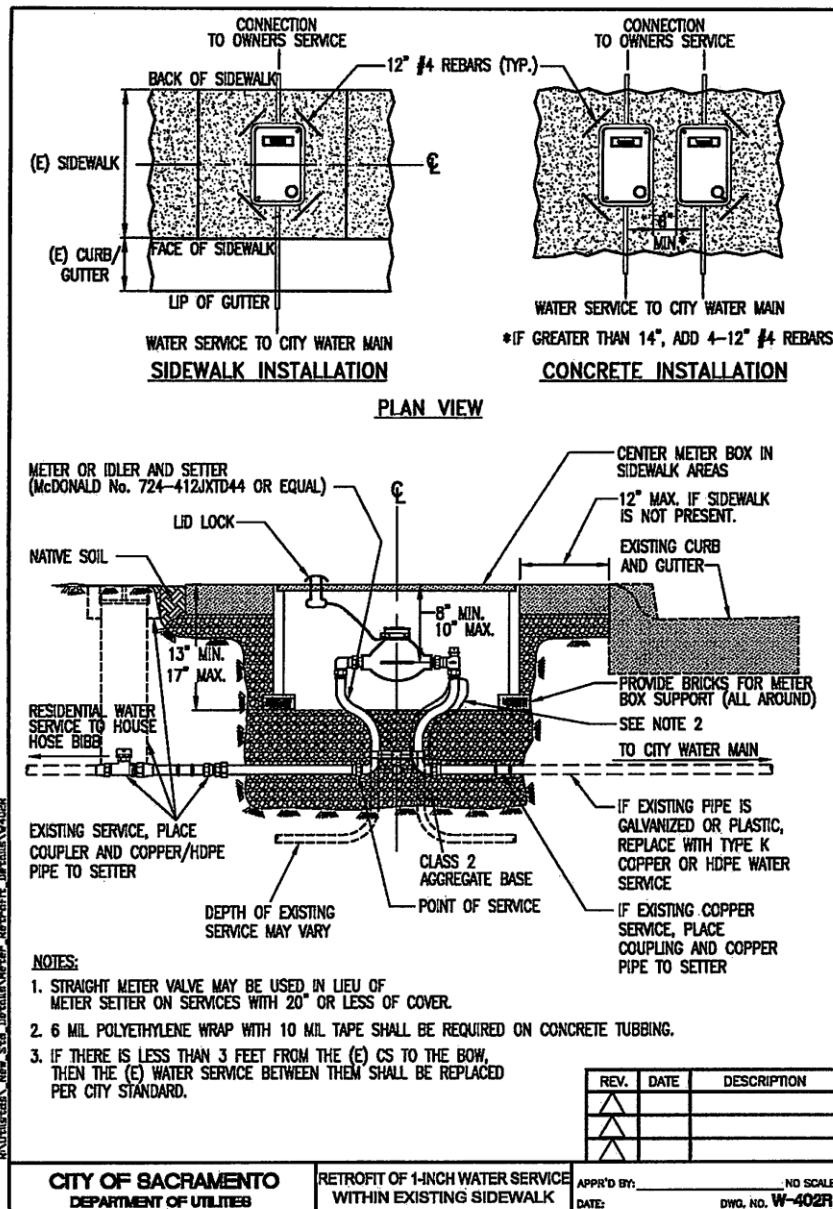


Figure 2. Typical Water Meter Install Diagram

## 2.2.1 Environmental Commitments and Best Management Practices

As part of the Proposed Action, the City of Sacramento will implement the following environmental commitments and Best Management Practices (BMP) in order to avoid and minimize potential effects to the affected environment:

- There will be no discharges to any bodies of water
- No construction will occur within wetland or riparian areas
- Stormwater BMPs will be adhered to, including protection of storm drains
- All spillage/solid waste will be removed immediately and disposed of off-site
- Water or dust palliative shall be applied



- Property owners will be given advance notice of construction
- Removal of on-street parking will be kept to a minimum
- All work will be conducted during normal business hours
- Construction will be phased
- Residential water shutdowns will be limited
- Existing improvements will be protected
- Existing trees will be avoided

## **Section 3 Affected Environment and Environmental Consequences**

### **3.1 No Action Alternative**

The No Action Alternative would consist of Reclamation not providing grant funding to partially fund water meter retrofits and a turf replacement incentive program. Under the No Action Alternative, there would be no change to existing conditions and current trends of the affected environment. Without the Proposed Action there would be no water savings from metered residential water, or incentives for homeowners to replace turf with water wise landscaping. Landscapes and irrigation systems currently in place would continue to operate and the City would continue to provide water to users.

### **3.2 Proposed Action**

#### **3.2.1 Water Resources**

The Project would save approximately 366 acre-feet per year. This is based on an assumed 15% water savings per single-family customer. This assumption is informed by the City's recent meter retrofits in other neighborhoods. With each single-family using approximately 0.73 acre-feet per year, the reduction per family is estimated at 0.11 acre-feet per year. Approximately 60% of water is used for exterior use, which translates to approximately 0.44 acre-feet per single-family customer for exterior use. Implementation of the River Friendly Landscaping portion of the Project would save an estimated 42% of that, or 0.18 acre-feet per year per single-family customer. For 3,000 new residential water meters and approximately 200 River Friendly Landscaping participants, annual water savings would be 366 acre-feet.

This water savings results in less water diverted from Folsom Dam, which leaves more water for other beneficial Bay-Delta uses. Water savings could be applied to meeting temperature objectives in the lower American River.

#### **3.2.2 Air Quality**

Equipment operation during meter installations will generate greenhouse gas emissions, but should be minimal and last only through construction. Ground disturbance should be very limited and not require extensive use of large equipment. Fugitive dust will be kept to a minimum by the use of water and/or dust palliative.

Replacing turf with water efficient trees and plants would reduce greenhouse gas emissions as the need to operate pollutant-emitting lawn mowers and leaf blowers decreases, and as any shade trees planted by homeowners reduce energy generation to cool homes or offices (EPA 2009).

### **3.2.3 Cultural Resources**

The Proposed Action would provide the City of Sacramento with federal funding to install residential water meters and provide water users with financial incentives to replace turf with water wise landscaping. Ground disturbance associated with water meter retrofits will be confined to water main connections at the street, on a paved (sidewalk) or landscaped surface. Landscaping activities would be limited to previously disturbed residential lawns. This type of activity has no potential to cause effects on historic properties. As such, Reclamation has no further obligations under Section 106 of the National Historic Preservation Act (NHPA), pursuant to 36 CFR Part 800.3(a)(1). There will be no significant impacts to cultural resources under the Proposed Action (see Appendix B).

### **3.2.4 Cumulative Impacts**

According to CEQ 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. As there would be no adverse impacts associated with implementing the action, there are no cumulative effects to consider.

## **Section 4 Consultation and Coordination**

### **4.1 Agencies and Groups Consulted**

Reclamation consulted with the City of Sacramento in the preparation of this EA.

### **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 determined that there would be no effect on federally-listed as endangered or threatened species; therefore, the USFWS was not consulted.

### **4.3 National Historic Preservation Act (54 U.S.C. § 300101 et seq.)**

54 U.S.C. § 304108, commonly known as Section 106 of the NHPA, requires that Federal agencies take into consideration the effects of their undertakings on historic properties. Historic properties are cultural resources that are included in, or eligible for inclusion in, the National Register. The 36 CFR Part 800 regulations implement Section 106 of the NHPA and outline the procedures necessary for compliance with the NHPA. Compliance with the Section 106 process follows a series of steps that are designed to identify if significant cultural resources are present in the proposed action project area and to what level they would be affected by the proposed Federal undertaking.

Reclamation determined that the Proposed Action is the type of activity that has no potential to cause effects on historic properties; therefore the California State Historic Preservation Officer was not consulted.

## Section 5 References

U.S. Environmental Protection Agency. 2009. Research Report on Turfgrass Allowance. EPA WaterSense. Web. 17 Sept. 2015.  
[http://www.epa.gov/watersense/docs/home\\_turfgrass-report508.pdf](http://www.epa.gov/watersense/docs/home_turfgrass-report508.pdf).

# Appendix A: ITA Concurrence

04/13/2015

## Indian Trust Assets Request Form (MP Region)

Submit your request to your office's ITA designee or to MP-400, attention Deputy Regional Resources Manager.

**Date: September 1, 2015**

<b>Requested by (office/program)</b>	Kylene Lang MP-152/Environmental Compliance & Conservation
<b>Fund</b>	15XR0680A1
<b>WBS</b>	RX.18527901.300SACA
<b>Fund Cost Center</b>	2015200
<b>Region # (if other than MP)</b>	
<b>Project Name</b>	City of Sacramento Water Meter Retrofits and Expansion of the River Friendly Landscaping Program
<b>CEC or EA Number</b>	15-24-MP
<b>Project Description (attach additional sheets if needed and include photos if appropriate)</b>	Reclamation proposes to contribute \$750,000 to the City of Sacramento's Project through a WaterSMART Program grant. The City of Sacramento would supply \$3,022,279 of non-federal funding in support of the Project. The City of Sacramento would install approximately 3,000 water meters on existing residential service connections (previously disturbed land) and would offer rebates for up to 200,000 ft <sup>2</sup> of turf replacement (Figure 1).
<b>*Project Location (Township, Range, Section, e.g., T12 R5E S10, or Lat/Long cords, DD-MM-SS or decimal degrees). Include map(s)</b>	Latitude: 38.531 Longitude: -121.443

  
Signature

Kylene Lang  
Printed name of preparer

9-1-15  
Date

04/13/2015

**ITA Determination:**

The closest ITA to the proposed Meter Installation and Turf Replacement activity is the Wilton Rancheria about 12.26 miles to the southeast (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.

  
Signature

RICHARD M. STEVENSON  
Printed name of approver

9/2/15  
Date

04/13/2015

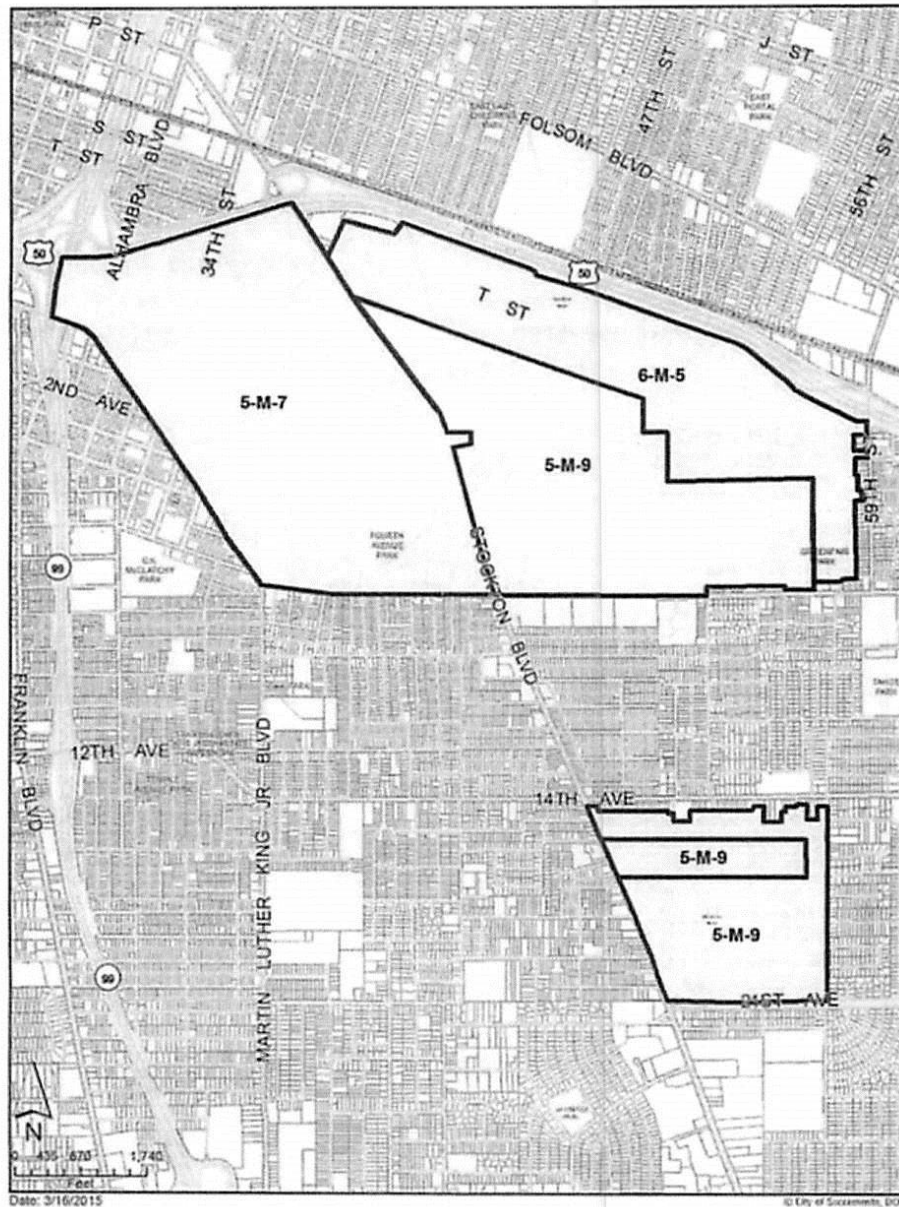


Figure 1. Project location map. Elmhurst, Oak Park, and Colonial Heights neighborhoods in Sacramento, CA.



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# Appendix B: NHPA, Section 106 Compliance

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

**MP-153 Tracking Number:** 15-CCAO-194

**Project Name:** City of Sacramento Water Meter Retrofits and Expansion of the River Friendly Landscaping Program

**NEPA Document:** CEC-15-24-MP

**NEPA Contact:** Kyleene Lang, Natural Resource Specialist



**MP 153 Cultural Resources Reviewer:** Scott Williams, Archaeologist

**Date:** September 9, 2015

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Reclamation proposes to provide grant funding to the City of Sacramento to install approximately 3,000 water meters on existing residential service connections (previously disturbed land) and offer rebates for turf replacement. From project descriptions provided in the draft Environmental Assessment (EA), it was concluded that this is the type of undertaking that does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the NHPA Section 106 regulations codified at 36 CFR § 800.3(a)(1). Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1).

The City of Sacramento has proposed to install approximately 3,000 water meters on existing residential service connections and would offer rebates of turf replacement with drought resistant landscaping. The meters would be installed at the current service connections, under landscaping or under sidewalks. Activities associated with the Implementation of River Friendly Landscaping Incentives would be limited to existing residential lawns.

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