



featherriver.org

UPPER FEATHER RIVER IRWM
PROJECT INFORMATION FORM

UPPER FEATHER RIVER IRWM
PROJECT INFORMATION FORM

Please submit by 5:00 p.m. on August 3, 2015, to UFR.contact@gmail.com

Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	East Quincy Services District
Name of Primary Contact	Mike Green - General Manager
Name of Secondary Contact	Vicki Poh – Administrative Assistant
Mailing Address	179 Rogers Avenue
E-mail	mike@eastquincycsd.com vicki@eastquincycsd.com
Phone	530-283-2390
Other Cooperating Agencies / Organizations / Stakeholders	Bastian Engineering – Daniel Bastian bastianengineeringinc@gmail.com 530-832-2644
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-42: Automatic Meter Reading (ARM) Project
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input checked="" type="checkbox"/> Municipal Services Water Supply/Water Quality Community Water/Wastewater <input type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>Replace the existing 850 water meters with Sensus I-Perl (or equivalent) meters with automatic reading capabilities. The measured groundwater pumped from EQSD wells is approximately 10% more than the water read at the current meters. Accurate and timely meter reading will provide the EQSD stakeholders with the information to better govern water use in accordance with the Governor’s drought proclamation and satisfy the IRWM goal to: “establish and maintain effective communication among water resource stakeholders in the region, enhancing the publics’ understanding of water management issues”.</p> <p>ARM water meters will allow for improved efficiency and reliability of the EQSD water-related infrastructure resulting in reduced groundwater pumping. And ARM water meters</p>

	would also enhance the District's ability to audit the system for leakage thereby improving water supply reliability and efficiency.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	This project is located in the East Quincy service district boundary, in the American Valley Groundwater Basin (5-10),
Latitude:	39.930747°
Longitude:	-120.898315°

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

For each of the objectives addressed by the project, provide a one to two sentence description of how the project contributes to attaining the objective and how the project outcomes will be quantified. If the project does not address *any* of the IRWM plan objectives, provide a one to two sentence description of how the project relates to a challenge or opportunity of the Region.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Reduced demand on local groundwater increases resources available for wildland fire suppression.	
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Communicated accurate information on District groundwater usage and water conservation methods to stakeholders in the Region.	
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		
Encourage municipal service providers to participate in regional water management actions that improve water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The project will facilitate reliable potable water for use by customers in the EQSD area. This project will reduce reliance on	

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
supply and water quality.		groundwater through conservation, thereby helping the Region meet drinking water demands that are threatened by drought restrictions. As a local, sustainable water supply, the groundwater saved by this project becomes available for future needs and is not vulnerable loss. Increased water supply due to early identification of customer leaks.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This project is dependent on grant funding. Early leak detection reduces District pumping demands and improves efficiency of service to customers.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Reduce groundwater consumption through early leak detection.	
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Reduced groundwater demand due to early leak identification addresses the water resource needs of East Quincy Services District customers.	
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Early identification of leaks, less ground water usage would be necessary.	
Improve coordination of land use and water resources planning.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Maximize agricultural, environmental and municipal	<input checked="" type="checkbox"/> Yes	EQSD relies entirely on groundwater sources for its	

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
water use efficiency.	<input type="checkbox"/> N/A	water source. The American Valley also includes agricultural users that access the same aquifer. Any reduction in groundwater supplies could result in local water restrictions to agricultural users. Accurate monitoring of groundwater usage as well as early leak detection reduces the Districts groundwater usage.	
Effectively address climate change adaptation and/or mitigation in water resources management.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Reduce groundwater pumping by providing stakeholders with more accurate and timely usage data.	
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	By providing the customers with timely and accurate water usage information helps lead to an understanding of how water is used.	
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Work with counties/communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		

If no objectives are addressed, describe how the project relates to a challenge or opportunity for the Region:

IV. PROJECT IMPACTS AND BENEFITS

Please provide a summary of the expected project benefits and impacts in the table below or check N/A if not applicable; **do not leave a blank cell**. Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	<input checked="" type="checkbox"/> N/A	
b. Disadvantaged Communities¹	<input type="checkbox"/> N/A	Increased monitoring and early leak detection reducing customer costs associated with undetected leaks.
c. Environmental Justice²	<input checked="" type="checkbox"/> N/A	
d. Drought Preparedness	<input type="checkbox"/> N/A	Less groundwater demand due to more efficient monitoring and leak detection.
e. Assist the region in adapting to effects of climate change³	<input type="checkbox"/> N/A	Reduced water demand. Reduced fossil fuel consumption necessary for current manual meter reading program. Has the potential to save 20+million gallons of water a year through early leak detection and repair: equal to one summer month worth of usage.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input type="checkbox"/> N/A	Reduces fuel use in district vehicles for manual reading of meters in the current program.
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input checked="" type="checkbox"/> N/A	
<p>¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/).</p> <p>² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.</p> <p>³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</p>		

DWR encourages multiple benefit projects which address one or more of the following elements (PRC §75026(a)). Indicate which elements are addressed by your project.

a. Water supply reliability, water conservation, water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	g. Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	j. Planning and implementation of multipurpose flood management programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		

V. RESOURCE MANAGEMENT STRATEGIES

For each resource management strategy (RMS) employed by the project, provide a one to two sentence description in the table below of how the project incorporates the strategy. A description of the RMS can be found in Volume 2 of the 2013 California Water Plan (<http://featherriver.org/2013-california-water-plan-update/>).

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reduced use due to early leak detection and repair in this rural community
Improve Flood Management		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improved system efficiency due to early leak detection and repair allowing more water to be available for delivery to neighboring district.
System reoperation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Locates and reduces water loss from customer services reduce pumping and ground water depletion.
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Water Quality		
Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Accurate monitoring of gallons pumped vs. gallons metered. Early leak detection and resulting increased efficiency of distribution system.
Groundwater remediation/aquifer remediation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pollution prevention	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ecosystem restoration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Forest management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Land use planning and management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Recharge area protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sediment management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Watershed management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
People and Water		
Economic incentives	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	More information on water use available to customers. EQSD also distributes water conservation information/tips to our customers.
Water and culture	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water-dependent recreation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wastewater/NPDES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Other RMS addressed and explanation:

The September 16, 2014 groundwater management legislation that was passed in three bills “embraces the concept that groundwater is best managed locally”. This AMR Project responds to that groundwater management legislation.

Current service meter reading process requires manual inspection of each meter that takes 2 men several days to accomplish. Because the six water well meter readings can be read in a fraction of the service meter reading time, there exists a time delay nexus that cannot be reconciled.

The volume of water saved by the project could be one-two million gallons per month. The current annual losses, (estimated to be around 20 million gallons) are equal to one summer month worth of usage.

VI. PROJECT COST AND FINANCING

Please provide any estimates of project cost, sources of funding, and operation and maintenance costs, as well as the source of the project cost in the table below.

PROJECT BUDGET					
Project serves a need of a DAC?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Funding Match Waiver request?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	Direct Project Administration		\$31,750		\$31,750
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering / Environmental		\$20,125		\$20,125
d.	Construction/Implementation	\$604,708	\$12,850		\$617,558
e.	Environmental Compliance/Mitigation/Enhancement				
f.	Construction Administration		\$31,000		\$31,000
g.	Other Costs				
h.	Construction/Implementation Contingency	\$61,971			\$61,971
i.	Grand Total (Sum rows (a) through (h) for each column)	\$666,679	\$95,725		\$762,404
j.	Can the Project be phased? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, provide cost breakdown by phases				
		Project Cost	O&M Cost	Description of Phase	
	Phase 1				
	Phase 2				
	Phase 3				
	Phase 4				
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).	Annual operations and maintenance budget funded by monthly customer service rates.			
l.	Has a Cost/Benefit analysis been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
m.	Describe what impact there may be if the project is not funded (300 words or less)	Continual loss of tens of millions of gallons of potable water each year due to undetected leaks and inefficient and inaccurate monitoring data.			
*List all sources of funding. Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).					

VIII. PROJECT STATUS AND SCHEDULE

Please provide a status of the project, level of completion as well as a description of the activities planned for each project stage. If unknown, enter **TBD**.

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Cost/benefit analysis; ???	6/15	1 month after grant agreement
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Selection of meters and retail source for purchase	6/15	1 month after grant agreement
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	N/A		
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	The new meters are unlikely to require permitting	1 month after grant agreement	3 months after grant agreement
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	EQSD will install the new meters		
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Removal of existing meters and installation of new meters	1-3 months after grant agreement	2-4 months after grant agreement
Provide explanation if more than one project stage is checked as current status					

IX. PROJECT TECHNICAL FEASIBILITY

Please provide any related documents (date, title, author, and page numbers) that describe and confirm the technical feasibility of the project. See www.featherriver.org/catalog/index.php for documents gathered on the UFR Region.

<p>a. List the adopted planning documents the proposed project is consistent with or supported by (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).</p>	EQSD Water Capital Improvement Program.
<p>b. List technical reports and studies supporting the feasibility of this project.</p>	District Engineer Report (attached)
<p>c. Concisely describe the scientific basis (e.g. how much research has been conducted) of the proposed project in 300 words or less.</p>	A decade worth of gallons pumped vs. gallons metered reports show approx. 10% difference each month amounting to over 20million gallons of lost water each year which is equivalent to one summer month's worth of usage. Current service meter reading process requires manual inspection of each meter that takes 2 men several days to accomplish. Because the six water well meter readings can be read in a fraction of the service meter reading time, there exists a time delay nexus that cannot be reconciled.
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>Reduces the amount of gasoline required for current manual reading method.</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>f. Are you are an Agricultural Water Supplier²?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>g. Is the project related to groundwater?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>If yes, please indicate which groundwater basin.</p> <p>5-10 American Valley</p>

¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.

² Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.

Climate Change – Project Assessment Checklist

This climate change project assessment tool allows project applicants and the planning team to assess project consistency with Proposition 84 plan standards and RWMG plan assessment standards. The tool is a written checklist that asks GHG emissions and adaptation/resiliency questions.

Name of project: MS-42: Automatic Meter Reading (ARM) Project

Project applicant: East Quincy Services District

GHG Emissions Assessment

Project Construction Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- The project requires materials to be transported to the project site.
- The project requires workers to commute to the project site.
- The project is expected to generate GHG emissions for other reasons.
- The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Operating Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires energy to operate.
- The project will generate electricity.
- The project will proactively manage forests to reduce wildfire risk.
- The project will affect wetland acreage.
- The project will include new trees.
- Project operations are expected to generate or reduce GHG emissions for other reasons.

Adaptation & Resiliency Assessment

Water Supply

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water supply vulnerability issues:

- Not applicable
- Reduced snowmelt
- Unmet local water needs (drought)
- Increased invasive species

Reduction of GHG's due to the reduction in driving to read water meters.

Water Demand

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water demand vulnerability issues:

- Not applicable
- Increasing seasonal water use variability
- Unmet in-stream flow requirements
- Climate-sensitive crops
- Groundwater drought resiliency
- Water curtailment effectiveness

Expected to reduce water loss through more accurate metering and immediate leak detection and repair.

Water Quality

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water quality vulnerability issues:

- Not applicable
- Increasing catastrophic wildfires
- Eutrophication (excessive nutrient pollution in a waterbody, often followed by algae blooms and other related water quality issues)
- Seasonal low flows and limited abilities for waterbodies to assimilate pollution
- Water treatment facility operations
- Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

Flooding

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority flooding vulnerability issues:

- Not applicable
- Aging critical flood protection
- Wildfires
- Critical infrastructure in a floodplain
- Insufficient flood control facilities

Ecosystem and Habitat

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority ecosystem and habitat vulnerability issues:

- X Not applicable
- Climate-sensitive fauna or flora
- Recreation and economic activity
- Quantified environmental flow requirements
- Erosion and sedimentation
- Endangered or threatened species
- Fragmented habitat

Hydropower

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority hydropower vulnerability issues:

- X Not applicable
- Reduced hydropower output

MS-42: Automatic Meter Project (ARM)

GHG Emissions Analysis

Project Construction Emissions

The project requires non-road or off-road engines, equipment, or vehicles to complete. If yes:

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total MTCO ₂ e
Other Construction Equipment	2	46	7
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
Total Emissions			7

The project requires materials to be transported to the project site. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO ₂ e
2	160	0

The project requires workers to commute to the project site. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total MTCO ₂ e
4	46	10	1

The project is expected to generate GHG emissions for other reasons. If yes, explain:

The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

MS-42: Automatic Meter Project (ARM)

Project Operating Emissions

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
	kWh (Electricity)	0
	Therm (Natural Gas)	0

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will proactively manage forests to reduce wildfire risk. If yes:

Acres Protected from Wildfire	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
0	0

*A negative value indicates GHG reductions

Project operations are expected to generate or reduce GHG emissions for other reasons. If yes, explain:

Reduces the number of miles and hours driven each month to read water meters.

GHG Emissions Summary

Construction and development will generate approximately:	9 MTCO ₂ e
In a given year, operation of the project will result in:	0 MTCO ₂ e