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## UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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

Please provide information in the tables below:

#### I. PROJECT PROPONENT INFORMATION

<b>Agency / Organization</b>	Grizzly Lake CSD
<b>Name of Primary Contact</b>	Jared D. Recasens, Chief Operator
<b>Name of Secondary Contact</b>	Larry Terrill, Chairman, Board of Directors
<b>Mailing Address</b>	119 Delleker Drive, Portola, CA 96122
<b>E-mail</b>	glrid@att.net; jrwastewater@gmail.com
<b>Phone</b>	530-832-5225 office; 530-927-8459 cell
<b>Other Cooperating Agencies / Organizations / Stakeholders</b>	
<b>Is your agency/organization committed to the project through completion? If not, please explain</b>	Yes

#### II. GENERAL PROJECT INFORMATION

<b>Project Title</b>	MS-11: Delleker Water Meters
<b>Project Category</b>	<input checked="" type="checkbox"/> <b>Water Supply/Water Quality</b> <input type="checkbox"/> <b>Environmental Protection/Restoration</b> <input checked="" type="checkbox"/> <b>Community Water/Wastewater</b> <input type="checkbox"/> <b>Stakeholder/Public Collaboration and Education</b> <input type="checkbox"/> <b>Working Landscape Viability</b>
<b>Project Description</b> (Briefly describe the project, in 300 words or less)	Project will consist of replacing mainline as needed. Estimate approx 1000 lineal feet of mainline. Replace several service laterals and install approx 400 radio read meters and computer software necessary to read the system. All related appurtenances (meter box, yoke, meters, misc. fittings) will also need to be replaced. System is approx 50 - 60 years old and consists of asbestos cement service mains, most laterals are 3/4" soft roll copper configures so that one 3/4" service line feeds two households. The rest of the lines are boiler pipe that was used for the sawmill in Delleker in the early 1900s.
<b>Project Location Description</b> (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Project is located 3 miles west of Portola, CA

<b>Latitude:</b>	39.8114DegreesNorth
<b>Longitude:</b>	120.4978Degrees West

### 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.

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification (e.g. acres of streams/wetlands restored or enhanced)</b>
Restore natural hydrologic functions.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Reduce potential for catastrophic wildland fires in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Build communication and collaboration among water resources stakeholders in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Grizzly Lake CSD is a municipal service provider. Replacing asbestos containing water lines and other old lines with new, up-to-code water lines will improve water quality and delivery. We estimate approx 25 -30% reduction in water use.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Grant funding is necessary to provide safe, reliable water supplies to the local community. The existing system is 35-45 years old, was not installed properly, and is nearing the end of its useful life. Needs to be brought up to UPC.	
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	Will be able to perform water loss audits and account for water loss.	
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project is located in a Severely Disadvantaged Community.	
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Protection of groundwater resources by reducing approx 25 - 30% reduction in water use.	
Improve coordination of land use and water resources planning.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project will reduce consumption of water by approx 9 million gallons of water annually	
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	There will be less of a tax on power system by eliminating majority of leaks in system.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project will reduce wear and tear on well pump. Improve efficiency by eliminating majority of leaks in system.	
Enhance public awareness and understanding of water management issues and needs.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The Grizzly Lake CSD is fully prepared to work with the IRWM and the County to administer any	

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
actual administration and implementation of grant funding.		resultant grant and see this project through to completion. We are prepared to resource accordingly.	

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.

<b>If applicable, describe benefits or impacts of the project with respect to:</b>		
<b>a. Native American Tribal Communities</b>	<input checked="" type="checkbox"/> N/A	
<b>b. Disadvantaged Communities<sup>1</sup></b>	<input type="checkbox"/> N/A	Entire project is located in a Severely Disadvantaged Community.
<b>c. Environmental Justice<sup>2</sup></b>	<input type="checkbox"/> N/A	Improve water supply to an area that is primarily composed of minorities. The Grizzly Lake CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
<b>d. Drought Preparedness</b>	<input type="checkbox"/> N/A	Will be able to monitor use with installed meters. Account for missing water by performing comprehensive water audits.
<b>e. Assist the region in adapting to effects of climate change<sup>3</sup></b>	<input type="checkbox"/> N/A	Reducing water use by approx 9 million gallons per year.
<b>f. Generation or reduction of greenhouse gas emissions (e.g. green technology)</b>	<input checked="" type="checkbox"/> N/A	
<b>g. Other expected impacts or benefits that are not already mentioned elsewhere</b>	<input checked="" type="checkbox"/> N/A	

<sup>1</sup> 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/>).

<sup>2</sup> 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.

<sup>3</sup> Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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
<b>Reduce Water Demand</b>		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Rural water use efficiency
<b>Improve Flood Management</b>		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Improve Operational Efficiency and Transfers</b>		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Upgrade infrastructure facilities.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
System reoperation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The improvement of existing operations and management procedures of water facilities to meet needs more efficiently and reliably
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Increase Water Supply</b>		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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	
<b>Improve Water Quality</b>		
Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improve infrastructure by upgrading mainlines, distribution lines and installing water meters.
Groundwater remediation/aquifer remediation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improved infrastructure will allow system operation to improve water quality.
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	
<b>Practice Resource Stewardship</b>		
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	
<b>People and Water</b>		
Economic incentives	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Outreach and engagement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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:

**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	10,000			10,000
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering / Environmental	75,000			75,000
d.	Construction/Implementation	1,200,000			1,200,000
e.	Environmental Compliance/Mitigation/Enhancement				
f.	Construction Administration	11,000			11,000
g.	Other Costs				
h.	Construction/Implementation Contingency	204,000			204,000
i.	Grand Total (Sum rows (a) through (h) for each column)	1,500,000			1,500,000
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).	Anticipated revenue will help maintain infrastructure. Removal of illegal service connections will result in a reduction of maintenance costs.			
l.	Has a Cost/Benefit analysis been completed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
m.	Describe what impact there may be if the project is not funded (300 words or less)	Unable to met CA water reductions. The need for system upkeep will increase while reliability will decrease. Fire flow will be dramatically affected.			

\*List all sources of funding.

Note: See Project Development Manual, Exhibit B, for assistance in completing this table  
[\(http://featherriver.org/documents/\)](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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Evaluated by district staff. Will need Engineer/expert assistance.	Upon execution of grant agreement	1 month after funding agreement
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Create final design & engineering for project.	2 months after funding received	4 months after funding received
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Anticipate negative declaration. Approve & file CEQA	4 months after funding received	7 months after funding received
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Project engineer will prepare & submit necessary permits	7 months after funding received	8.5 months after funding received
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Request for proposal thru notice to proceed.	8.5 months after funding received	9 months after funding received
f. Construction Implementation	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Complete installation of water meters & sign off on project.	9 months after funding received	12 months after funding received
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](http://www.featherriver.org/catalog/index.php) for documents gathered on the UFR Region.

<b>a. List the adopted planning documents the proposed project is consistent with or supported by</b> (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).	Grizzly Lake CSD Capital Improvement Plan
<b>b. List technical reports and studies supporting the feasibility of this project.</b>	Anticipate an Engineer's Report
<b>c. Concisely describe the scientific basis</b> (e.g. how much research has been conducted) <b>of the proposed project in 300 words or less.</b>	Installation of new pipelines and the necessary appurtenances, the radio read meters and the appropriate software will ensure OSHA compliance and that NFPA and AWWA codes are met. The project's improved efficiency will save approx. 9 million gallons of water per year and improve fire protection.
<b>d. Does the project implement green technology</b> (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If yes, please describe.
<b>e. Are you an Urban Water Supplier<sup>1</sup>?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
<b>f. Are you an Agricultural Water Supplier<sup>2</sup>?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
<b>g. Is the project related to groundwater?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin. Humbug Valley
<p><sup>1</sup> 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.</p> <p><sup>2</sup> 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.</p>	

## 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-11: Delleker Water Meters

Project applicant: Grizzly Lake CSD

## 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 from outside of the UFR watershed.
- The project requires workers from outside of the UFR watershed.
- 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.

## 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

This project meets drought preparedness by achieving long-term reduction of water use and promoting water conservation. Having meters will allow GLCSD to perform water audits and help us to measure gallons used by each household. We estimate 25 - 30% savings in water usage.

### 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

This project will help the District to better meet drought preparedness by achieving long-term reduction of water use and promoting water conservation. Having meters will allow GLCSD to perform water audits and help measure actual gallons used by each household. Using meters we estimate 25 - 30% savings in water usage. People using metered rather than flat rates cut down on their water use.

### 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.)

Best guess is approximately 9 million gallons of water saved each year. GLCSD will be able to perform water audits and help measure actual gallons used by each household. We estimate overall a 25 - 30% savings each year in water usage.

### 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:

- 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:

- Not applicable
- Reduced hydropower output

Upper Feather River IRWMP  
Project Assessment - GHG Emissions Analysis

MS-11: Delleker Water Meters

**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 <sub>2</sub> e
Dumpers/Tenders	2	10	1
Excavators	2	90	79
Concrete/Industrial Saws	2	45	19
Rubber Tired Loaders	1	10	4
Skid Steer Loaders	1	10	1
Other Construction Equipment	1	15	1
			0
			0
			0
			0
<b>Total Emissions</b>			<b>105</b>

The project requires materials to be transported from outside of the UFR watershed. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO <sub>2</sub> e
15	90	2

The project requires workers from outside of the UFR watershed. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total MTCO <sub>2</sub> e
10	90	200	62

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.

Upper Feather River IRWMP  
Project Assessment - GHG Emissions Analysis

MS-11: Delleker Water Meters

**Project Operating Emissions**

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO <sub>2</sub> e
	kWh (Electricity)	<b>0</b>
	Therm (Natural Gas)	<b>0</b>

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

**GHG Emissions Summary**

Construction and development will generate approximately:	168 MTCO <sub>2</sub> e
In a given year, operation of the project will result in:	0 MTCO <sub>2</sub> e

Upper Feather River IRWMP  
Project Assessment - GHG Emissions Analysis



Upper Feather River IRWMP  
Project Assessment - GHG Emissions Analysis