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-43: Replace Copper Service Line Project
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** **Water Supply/Water Quality** **Community Water/Wastewater** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Replace 450 copper water service lines from the corporation stop at the water main to the service meter with polyethylene pipe of the same size. These older soft copper lines were not bedded in select material at the time of construction and have begun to develop wear holes that enlarge with the erosive force of high pressure flow. The native material is a coarse aggregate which does not result in surfacing of the leaks. The work would entail open trench construction, primarily in the county roads. Trench repair would satisfy the requirements of the to-be-obtained encroachment permit. Replacement of the copper service lines will lead to water conservation as the leaks that develop are difficult to locate due to aforementioned granular nature of the native material. Conservation would result in improved efficiency and reliability of the EQSD water-related infrastructure resulting in

	reduced groundwater pumping.
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 EQSD 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.	☐ Yes ■ N/A		
Reduce potential for catastrophic wildland fires in the Region.	■ Yes ☐ N/A	Improved supply reliability also allows water to be available to fight wildfires with a reduced impact on supplies needed to meet existing demands. The project also reduces wildfire risk by reducing contribution to the causes of climate change (greenhouse gas [GHG] emissions) and associated wildfire risk.	
Build communication and collaboration among water resources stakeholders in the Region.	☐ Yes ■ 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.	☐ Yes ■ N/A		

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)
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Replacing water service lines will significantly reduce water losses from leakage, which will reduce groundwater demand and make the water supply more reliable. Replacing the pipes that have large leaks will also reduce sources of possible contamination to make the water supply safer for users.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes ■ N/A		
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	This project is dependent on grant funding. Increasing water supply reliability will help to ensure that demands associated with the regional economy – including manufacturing, tourism and agriculture – can be met. This project provides a conservation measure to help buffer against prolonged drought. In addition, the reduction in leakage will result in less groundwater pumping and an associate cost savings to the Disctrict.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Repair and replacement of aging infrastructure will ensure safe, reliable water supply to the District's water users.	
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	Improve water quality to East Quincy Services District.	
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Repair of leaking infrastructure will lead to less ground water usage.	
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		

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)
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	EQSD relies entirely on groundwater sources for its 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. Local, drought-proof measures such as this line replacement project provides a local water supply buffer that allows the Region to minimize or avoid water use restrictions to agricultural users in times of drought.	
Effectively address climate change adaptation and/or mitigation in water resources management.	☐ Yes ■ N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Repairing aging infrastructure to minimize water loss from pipe leakage improves overall system efficiency.	
Enhance public awareness and understanding of water management issues and needs.	☐ Yes ■ N/A		
Address economic challenges of agricultural producers.	☐ Yes ■ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	■ Yes ☐ N/A	EQSD is committed to the successful implementation of this project. We will work with the County and other Stakeholders as necessary to implement the grant project.	

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 no 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	■ N/A	
b. Disadvantaged Communities[1]	☐ N/A	Improvement of system efficiency and increase system stability that serves East Quincy Services District.
c. Environmental Justice[2]	☐ N/A	Replacement of service water lines to eliminate leaks will ensure safe and reliable water supply for all people in the District regardless of race, culture or income.
d. Drought Preparedness	☐ N/A	Reduction of water loss from aging infrastructure pipe leakage will reduce groundwater pumping and allow the groundwater basin to be better managed for drought preparedness.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Reduction of water loss from aging infrastructure pipe leakage will reduce groundwater pumping and allow the groundwater basin to be better managed for drought preparedness. Additionally, more water will be available for emergency fire response.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	■ N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	■ N/A	

[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/) .

[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.

[3] 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	■ Yes ☐ N/A	g. Drinking water treatment and distribution	■ Yes ☐ N/A
b. Stormwater capture, storage, clean-up, treatment, management	☐ Yes ■ N/A	h. Watershed protection and management	■ Yes ☐ N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	☐ Yes ■ N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	☐ Yes ■ N/A
d. Non-point source pollution reduction, management and monitoring	☐ Yes ■ N/A	j. Planning and implementation of multipurpose flood management programs	☐ Yes ■ N/A
e. Groundwater recharge and management projects	■ Yes ☐ N/A	k. Ecosystem and fisheries restoration and protection	☐ Yes ■ N/A
f. Water banking, exchange, reclamation, and improvement of water quality	■ Yes ☐ 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	☐ Yes ■ No	
Urban water use efficiency	■ Yes ☐ No	Reduction of water loss from aging infrastructure pipe leakage in this rural community
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	System stability and efficiency improvement
System reoperation	■ Yes ☐ No	The improvement of existing operations and management procedures of water facilities to meet needs more efficiently and reliably
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	☐ Yes ☐ No	
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	☐ Yes ■ No	
Surface storage – regional/local	☐ Yes ■ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Aging system infrastructure repair results in a safer, more reliable drinking water supply.
Groundwater remediation/aquifer remediation	☐ Yes ■ No	
Matching water quality to water use	☐ Yes ■ No	
Pollution prevention	☐ Yes ■ No	
Salt and salinity management	☐ Yes ■ No	
Urban storm water runoff management	☐ Yes ■ No	
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ■ No	
Ecosystem restoration	☐ Yes ■ No	
Forest management	☐ Yes ■ No	
Land use planning and management	☐ Yes ■ No	
Recharge area protection	☐ Yes ■ No	
Sediment management	☐ Yes ■ No	
Watershed management	■ Yes ☐ No	Reduction in groundwater pumping will allow the groundwater basin to retain and store more water.
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	☐ Yes ■ No	
Water and culture	☐ Yes ■ No	
Water-dependent recreation	☐ Yes ■ No	
Wastewater/NPDES	☐ Yes ■ 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?: ■ Yes ☐ No
Funding Match Waiver request?: ■ Yes ☐ 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**		$32,175		$32,175
d.	**Construction/Implementation**	$1,003,000	$71,843		$1,074,843
e.	**Environmental Compliance/ Mitigation/Enhancement**		$395		$395
f.	**Construction Administration**		$14,300		$14,300
g.	**Other Costs**	Inc.			Inc.
h.	**Construction/Implementation Contingency**	$104,685			$104,685
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$1,107,685	$150,463		$1,258,148

j.	**Can the Project be phased?** ☐ **Yes** ■ **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).**	Through our operations and maintenance annual budget funded with monthly service charges.
l.	**Has a Cost/Benefit analysis been completed?**	■ **Yes** ☐ **No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Continued loss of water due to leaks in the unmetered portion of the system. Higher demand on groundwater pumping to keep up water supply. System instability and possibility of contamination of water system through infiltration via holes in pipes.

*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	☐	■ Yes ☐ No ☐ N/A	Cost/benefit analysis, evaluation of project needs	5/15	6/15
b. Final Design	■	☐ Yes ■ No ☐ N/A		Upon procurement of grant funding	1 month after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A		1 month after funding secured	2-3 months after funding secured
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Encroachment permit	1 month after funding secured	3-4 months after funding secured
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A		3-4 months after funding secured	4-5 months after funding secured
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A		4-5 months after funding secured	8-10 months after funding secured
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.

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.).	EQSD Water Capital Improvement Program.
b. List technical reports and studies supporting the feasibility of this project.	District Engineer Report (attached)
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Several years of pumped vs. metered reports showing unaccounted for water loss. Increased service lateral repairs in affected area in last several years.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	☐ Yes ■ No ☐ N/A If yes, please describe.
e. Are you an Urban Water Supplier[1]?	☐ Yes ■ No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes ■ No ☐ N/A
g. Is the project related to groundwater?	■ Yes ☐ No ☐ N/A If yes, please indicate which groundwater basin. 5-10 American Valley

[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-43: Replace Copper Service Lines 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)

- X The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- X The project requires materials to be transported to the project site.
- X 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.
- X 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
- X Reduced snowmelt
- X Unmet local water needs (drought)
- ☐ Increased invasive species

Reduces GHG by reducing needless pumping due to leakage, saving water resources and energy.

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
- X Groundwater drought resiliency
- ☐ Water curtailment effectiveness

Reduces unmetered water loss and helps sustain ground water table.

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:

X 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:

X 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

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GHG Emissions Analysis

Project Construction Emissions

[X] 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 $MTCO_2e$
Rollers	1	14	3
Tractors/Loaders/Backhoes	2	30	16
Paving Equipment	1	10	3
Concrete/Industrial Saws	1	15	3
Plate Compactors	1	15	0
Other Construction Equipment	2	30	5
			0
			0
			0
			0
		Total Emissions	**31**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
2	160	**0**

[X] 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 $MTCO_2e$
4	90	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.

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Project Operating Emissions

☐ The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
	kWh (Electricity)	**0**
	Therm (Natural Gas)	**0**

☐ The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

☐ The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

☐ The project will include new trees. If yes:

Acres of Trees Planted	Total $MTCO_2e$
0	**0**

*A negative value indicates GHG reductions

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

This project is expected to replace leaky copper pipe reducing well pumping saving water and electricity.

GHG Emissions Summary

Construction and development will generate approximately:	32 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$