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	City of Portola
Name of Primary Contact	Robert Meacher
Name of Secondary Contact	Karen Downs
Mailing Address	P.O.Box1225 96122
E-mail	r.meacher@ci.portola.ca.us
Phone	530-832-4216
Other Cooperating Agencies / Organizations / Stakeholders	Plumas County & State of California
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-1: Wastewater System Infrastructure Improvements
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ■ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	This proposed solution to correct the increased inflow/infiltration (I&I) to the City system is a discrete plan to reconstruct aged, failing and failed sewer lines throughout the City as determined by existing video logs of the system. The attached mMaps on file at City Hall show where the reconstruction work is being proposed. Also attached, are documents with information on on file are types of reconstruction options, including open trench, fold and form linings, and point repairs with individual cost estimates.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	City of Portola Census Tract 33.07 Block group 3012
Latitude:	120.4697 W
Longitude:	39.8103 N

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		N/A
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ■ N/A		N/A
Build communication and collaboration among water resources stakeholders in the Region.	■ Yes ☐ N/A	By the very nature of the project this objective is met.	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	Project area receives water from DWR facility at Lake Davis.	Treated Lake Davis Water is being leaked into the aquifer from aged sewer infrastructure. Stopping the leaks would increase water supply
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Reconstructing aged, failing and failed sewer lines throughout the City will prevent leakage of raw sewage and improve water quality in the area.	N/A
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes ■ N/A		N/A
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	As a Severely Disadvantaged Community, Portola is dependent on grant funds to complete this project. The project will prevent leakage of raw sewage and contribute to better sanitation and water quality.	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)
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	The project will stop runoff and leakage into the Feather River and into groundwater.	
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	This project will reconstruct leaking/failing sewer lines to address the wastewater needs of Portola (SDAC).	Stop the leakage without raising rates
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Reduces leakage of untreated wastewater into groundwater basin	Stopping the effluent leakage will protect groundwater.
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ■ N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	☐ Yes ■ N/A		N/A
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Improves system capacity and reliability, and protects water supply from contamination.	Stops water waste by fixing leaks.
Enhance public awareness and understanding of water management issues and needs.	■ Yes ☐ N/A	Citizens understand that leaking sewage affects the local economy.	Public education and outreach.
Address economic challenges of agricultural producers.	☐ Yes ■ N/A		N/A
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	■ Yes ☐ N/A	The City of Portola will continue to work with the County to ensure the successful implementation of this project.	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 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	Saves ratepayers' valuable dollars in fees that would be required to complete this project without grant funding. Portola is a Severely Disadvantaged Community as per footnote 1 below
c. Environmental Justice[2]	☐ N/A	This project improves sanitation for all people in Portola, regardless of race, culture or income.
d. Drought Preparedness	■ N/A	///
e. Assist the region in adapting to effects of climate change[3]	■ N/A	///
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	Less energy used at treatment plant
g. Other expected impacts or benefits that are not already mentioned elsewhere	☐ N/A	Makes repairs less likely therefore saving the DAC $$$ and making the City a more attractive place to live.

[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 use efficiency	☐ Yes ■ N/A	g. Drinking water treatment and distribution	☐ Yes ■ N/A
b. Storm water treatment, management	■ Yes ☐ N/A	h. Watershed protection	■ 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 removal through other treatment technologies	☐ 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	
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ■ No	
System reoperation	☐ Yes ■ No	
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	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ■ No	
Groundwater remediation/aquifer remediation	☐ Yes ■ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Matching water quality to water use	☐ Yes ■ No	
Pollution prevention	■ Yes ☐ No	Prevent leakage of untreated sewage into ground and the Feather River.
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	
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	Reconstruction of failing/failed sewer lines to prevent leakage of untreated sewage

Other RMS addressed and explanation:

N/A

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**	6,000	0	0	6,000
b.	**Land Purchase/Easement**	29,500	0	0	29,500
c.	**Planning/Design/Engineering / Environmental**	255,000	0	0	255,000
d.	**Construction/Implementation**	969,520	0	0	969,520
e.	**Environmental Compliance/ Mitigation/Enhancement**	N/A	0	0	N/A
f.	**Construction Administration**	N/A	0	0	N/A
g.	**Other Costs**	35,000	0	0	35,000
h.	**Construction/Implementation Contingency**	129,502	0	0	129,502
i.	**Grand Total (Sum rows (a) through (h) for each column)**	1,424,522	0	0	1,424,522

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).**	City sewer fees
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)**	Leakage into ground water in summer months leakage into system in winter months. System Failure.

*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	Done	2015	2015
b. Final Design	☐	■ Yes ☐ No ☐ N/A	Done	2015	2015
c. Environmental Documentation (CEQA / NEPA)	☐	■ Yes ☐ No ☐ N/A	Done	2015	2015
d. Permitting	☐	■ Yes ☐ No ☐ N/A	Done	2015	2015
e. Construction Contracting	■	☐ Yes ■ No ☐ N/A	Awaiting Funding	3-4 months after funding depending on time of the year	4-5 months after funding
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Awaiting Funding	4-5 months after funding	10-12 months after funding
Provide explanation if more than one project stage is checked as current status			This project is shovel ready. All documents are on file at City Hall		

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.).	Portola General Plan Portola Wastewater Master Plan
b. List technical reports and studies supporting the feasibility of this project.	Fites Engineering Study Bastian Engineering Report CDBG Application supporting documents all on file at City Hall
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Video logs of the system documented the aged, failing and failed sewer lines and their locations throughout the City. Maps of the failing and failed sewer lines have also been generated.
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. Feather River / Sierra 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-1: Wastewater System Infrastructure Improvements

Project applicant: City of Portola

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

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

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.)

Reduces inflow to treatment plant. Saves energy, reduces GHG emissions, reduces threat of water pollution.

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

Sewer treatment is located in a critical floodplain. Project will reduce the threat of releasing untreated wastewater into the middle fork of the Feather River.

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

With a good sewer system the City of Portola will be more attractive for economic activities. With the reduced threat of discharges into the middle fork of the Feather River the fishery, and its endangered species, will be better protected for ecosystem and recreational benefits.

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

MS-1: Wastewater System Infrastructure Improvements

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 $MTCO_2e$
Pavers	1	20	6
Plate Compactors	1	60	1
Rollers	1	20	5
Signal Boards	2	120	15
Tractors/Loaders/Backhoes	2	115	62
Excavators	1	20	9
			0
			0
			0
			0
		Total Emissions	**97**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
6	100	**1**

[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 $MTCO_2e$
5	120	20	**4**

[ ] 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-1: Wastewater System Infrastructure Improvements

Project Operating Emissions

☐ The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
0	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 will reduce energy costs by reducing inflow to the treatment plant.

GHG Emissions Summary

Construction and development will generate approximately:	102	$MTCO_2e$
In a given year, operation of the project will result in:	0	$MTCO_2e$

featherriver.org

UPPER FEATHER RIVER IRWM

PROJECT INFORMATION FORM

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Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	City of Portola
Name of Primary Contact	Robert Meacher
Name of Secondary Contact	Phil Oels
Mailing Address	35 third Ave. Portola, Ca. 96122
E-mail	r.meacher@ci.portola.ca.us philoels7@gmail.com
Phone	530-832-4216
Other Cooperating Agencies / Organizations / Stakeholders	none
Is your agency/organization committed to the project through completion? If not, please explain	yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-2: Turner Springs Improvement
Project Category **Municipal**	**Agricultural Land Stewardship** **Floodplains/Meadows/Waterbodies** **X Municipal Services** **Tribal Advisory Committee** **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	The City owns a pre-1914 water source and approximately 25 acres at Turner Springs. It was used to supply water to town until Lake Davis was built. The project is to improve the spring, replace the old water lines and connect to existing lines along highway A-15. The property also has about 20 acres of second-growth timber land that is in desperate need of fire-hazard reduction/watershed enhancement work, as it is badly over-stocked with young growth. Areas of the timber stand are so dense that walking through them is difficult, bark beetle infestation has left trees diseased or dead, and the prevalent ladder fuels could be disastrous for rapid expansion of a wildland fire. This project will thin the trees and reduce ladder fuels to reduce the dangers

	of wildland fires, to improve water penetration into the ground and to improve overall watershed health.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	w. half of sw. quarter of sw. quarter, sec. 14 and 200 ft of e. half of sw quarter of sw quarter, sec. 15. t22n. R13e. Approx. 4 mi west of portola on A-15 to f.s. Rd 22n03y, then south to the end of the road. Property is in eastern Plumas county, CA.
Latitude:	39 degrees, 45ft
Longitude:	120 degrees, 30ft

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 X N/A	N/A	N/A
Reduce potential for catastrophic wildland fires in the Region.	X Yes N/A	Yes. The timber stand on approximately 20 acres is badly over-stocked. Thinning would reduce fire-hazard, make it more resistant to pine beetles and enhance water flow by reducing transpiration	20 acres of improved, fire and disease resistant timber.
Build communication and collaboration among water resources stakeholders in the Region.	Yes X N/A	N/A	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	X Yes N/A	Yes. Developing this spring would give Portola an average of somewhere around two million gallons of water per month. This would lessen our dependence on Lake Davis,	An additional two million gallons of water per month

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)
increase water supply, recreational, and environmental benefits to the Region.		leaving more water for the fishery there and/or other users downstream	
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes X N/A	N/A	N/A
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	Yes X N/A	N/A	N/A
Address economic challenges of municipal service providers to serve customers.	X Yes N/A	Yes. Gravity fed, chlorinated spring water has to be significantly less expensive than treated Lake Davis water.	Can't quantify with the data currently available
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	Yes X N/A	N/A	N/A
Address water resources and wastewater needs of DACs and Native Americans.	X Yes N/A	This project would add 24 million gallons per year of less expensive water per year to Portola's water supply.	N/A
Coordinate management of recharge areas and protect groundwater resources.	Yes X N/A	N/A	N/A
Improve coordination of land use and water resources planning.	X Yes N/A	Yes. By managing our timber stand better, we should see an increase in our water supply	Approximately 20 acres of treated timber stand
Maximize agricultural, environmental and municipal	Yes	N/A	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)
water use efficiency.	X N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	X Yes N/A	Yes. Treated timber stands are more resistant to fire and pine beetle infestations. Reduces SWP dependence.	20 acres
Improve efficiency and reliability of water supply and other water-related infrastructure.	X Yes N/A	Yes. Turner springs would be a good additional source of water for the City. It has been in use from 1911 to the construction of Lake Davis and has never gone dry that we know of. Water from there would also gravity feed into our system because the spring is about 400 ft. higher in elevation than our tanks	An increase of supply of approximately two million gallons of water per month
Enhance public awareness and understanding of water management issues and needs.	Yes X N/A	N/A	N/A
Address economic challenges of agricultural producers.	Yes X N/A	N/A	N/A
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	X Yes N/A	Yes, Portola is a full-service City.	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 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]	Lower Cost of water
c. **Environmental Justice**[2]	Improve water supply for all people in service area regardless of race, culture or income.
d. **Drought Preparedness**	Fire proofing water source
e. **Assist the region in adapting to effects of climate change**[3]	Better use of surface and ground water sources results in better availability and reliability of water supplies
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

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	g. Drinking water treatment and distribution	Yes
b. Storm water capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	Yes
c. Removal of invasive non-native species, creation/enhancement of	N/A	i. Contaminant and salt removal through reclamation/desalting, other	N/A

wetlands, acquisition/protection/restoration of open space and watershed lands		treatment technologies and conveyance of recycled water for distribution to users	
d. Non-point source pollution reduction, management and monitoring	N/A	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	Yes	k. Ecosystem and fisheries restoration and protection	Yes
f. Water banking, exchange, reclamation, and improvement of water quality	Yes		

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	N/A	
Urban water use efficiency	No	
Improve Flood Management	No	
Flood management	No	
Improve Operational Efficiency and Transfers	Yes.	Water from Turner springs would gravity feed
Conveyance – regional/local	Yes	Re-connects spring to City
System reoperation	Yes	Turner used to be a domestic supply
Water transfers	No	
Increase Water Supply	Yes.	Turner Spring will add approximately 24 gallons per year
Conjunctive management	Yes	The coordinated management of both the Lake Davis Water and spring water will maximize the availability and reliability of water supplies.
Precipitation Enhancement	No	
Municipal recycled water	No	
Surface storage – regional/local	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	Turner springs will gravity feed into our existing system
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	Yes	High quality, inexpensive water for domestic use
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	Yes	Fire-hazard thinning over 20 acres
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	Yes	Thinning is also watershed management
People and Water		
Economic incentives	Yes	Water that is less expensive to produce
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	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

Funding Match Waiver request?: Yes

	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*
a.	**Direct Project Administration**	63000	N/A	N/A
b.	**Land Purchase/Easement**	7000	N/A	N/A
c.	**Planning/Design/Engineering/ Environmental Documentation**	41000	N/A	N/A
d.	**Construction/Implementation**	220000	N/A	N/A
e.	**Environmental Compliance/ Mitigation/Enhancement**	4000	N/A	N/A
f.	**Construction Administration**	Included in "a"	N/A	N/A
g.	**Other Costs**	65000	N/A	N/A
h.	**Construction/Implementation Contingency**	-0-	N/A	N/A
i.	**Grand Total (Sum rows (a) through (h) for each column)**	403000	N/A	N/A

j. Can the Project be phased? Yes If **yes**, provide cost breakdown by phases

	Project Cost	O&M Cost	Description of Phase
Phase 1	71200	N/A	Survey, environmental, engineering, permitting, and title searches on easements
Phase 2	293000	Portola City will maintain Turner Spring	Construction, administration, and chlorination facility
Phase 3	40000	N/A	Fire-hazard and watershed enhancement work
Phase 4			

k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**	By saving the difference in cost between Lake Davis treated water and gravity-fed spring water
l.	**Has a Cost/Benefit analysis been completed?**	**No**

m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Portola is a severely disadvantaged community. Therefore, without funding from outside sources, the project cannot be implemented, and the community will not have reliable water supplies during extended drought. Additionally, the dense forest with abundant ladder fuels will continue to pose a significant risk for wild fires.

*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	**x**	No	Concept and cost analysis. Forwarded to engineer.	When funding is awarded	2 months after funding awarded
b. Final Design		No	Engineering and design.	2 months after funding awarded	4 months after funding awarded
c. Environmental Documentation (CEQA / NEPA)		No		4 months after funding awarded	10 months after funding awarded
d. Permitting		No		4 months after funding awarded	10 months after funding awarded
e. Construction Contracting		No		10 months after funding awarded	12 months after funding awarded
f. Construction Implementation		No		12 months after funding awarded	14 months after funding awarded
Provide explanation if more than one project stage is checked as current status			Project is in conceptual stage and cannot move forward without financial assistance		

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.).	General plan, water master plan
b. **List technical reports and studies supporting the feasibility of this project.**	Legal documentation on Turner Springs tracked back to 1911. Department of Forestry and Fire Protection Notice of Inspection and site report documenting dead, dying and diseased trees, primarily due to bark beetle infestation, high tree density and fire fuel loading. This document also provides a long-term management goal that is in agreement with the plans in this proposal.
c. **Concisely describe the scientific basis** (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Turner springs was one of the original Portola Water Company properties from 1911 and provided water to the community from that time until 1967, when the Lake Davis water treatment plant came on line. The City Council, at the time, decided to cease maintenance on it, thinking Lake Davis was all we would ever need. This no longer seems to be the case.
d. **Does the project implement green technology** (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	Yes If yes, please describe. Water will be gravity-fed into the system. Turner Springs is approximately 400 ft. higher in elevation than the tanks on the south side of Portola
e. **Are you an Urban Water Supplier[1]?**	No
f. Are you are an Agricultural Water Supplier[2]?	No

g. Is the project related to groundwater?	Yes. Turner Springs is not in a designated groundwater basin. The spring is located on the north-west end of Beckwith Peak. This is near the lower end of a basin that is about 1000 acres covered by brush and rock on Forest Service Land.

[NN] 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-2: Turner Springs Improvement

Project applicant: City of Portola

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

(More Resilient) Redevelops a 40 gpm pre 1914 supply for water security. The project will reduce fire hazard by thinning the property and decrease GHGs by planting new trees after the dead trees are removed. There may be a wetlands component as well.

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

(More Resilient) This project by adding another source, will reduce demand on dwindling supplies and/or curtailed sources during drier months.

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.)

The project will decrease the threat of catastrophic wildfire by taking out dead and dying trees on approximately 20 acres of city owned watershed land. It will reduce GHGs by reducing the need for treatment plant operations, and will help protect the municipal and domestic water supply vulnerability due to drought.

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

Thinning of 20 acres with high mortality of trees due to drought conditions.

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

MS-2: Turner Springs Improvement

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 $MTCO_2e$
Excavators	1	2	1
Tractors/Loaders/Backhoes	1	10	3
Bore/Drill Rigs	1	2	2
Cement and Mortar Mixers	1	1	0
Other Construction Equipment	1	2	0
			0
			0
			0
			0
			0
		Total Emissions	**6**

[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	100	**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 $MTCO_2e$
3	10	X	**#VALUE!**

[ ] 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-2: Turner Springs Improvement

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
10	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

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

Acres Protected from Wildfire	Total $MTCO_2e$
20	**-126**

*A negative value indicates GHG reductions

[X] The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
5	**-22**

*A negative value indicates GHG reductions

[X] The project will include new trees. If yes:

Acres of Trees Planted	Total $MTCO_2e$
15	**-2,790**

*A negative value indicates GHG reductions

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

Reducing GHGs by using a gravity fed spring water supply to the City> Thus reducing the need for energy intinsive treatment of Lake Davis water. There will also be a benefit in less energy requiered to pump water to the "South Tank".

GHG Emissions Summary

Construction and development will generate approximately:	#VALUE!	$MTCO_2e$
In a given year, operation of the project will result in:	-2,938	$MTCO_2e$

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-4: Water Tank 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 the existing EQSD 800,000 gallon concrete tank with a steel tank of equal size. It is estimated that the project will reduce groundwater pumping by over 1 million gallons for any given year, to create a more reliable, drought-proof water supply.
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 on the southern flank of the American Valley Groundwater Basin (designated 5-10) and within the disadvantaged community block group in the EQSD boundary, located in Plumas County. The EQSD owned parcel (shown in pink on Figure 2) that the tank occupies is APN 116-280-020 and 1.13 Ac. In size. The tank footprint is approximately 6,600 sq. ft.

Latitude:	39.927422°
Longitude:	-120.891447°

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 water supply reliability allows water to be available to fight wildfires with a reduced impact on supplies needed to meet existing demands.	
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Increase water supply and quality by reducing leaks and possibility of contamination associated with tank leakage.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in 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)
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	This project is dependent on grant funding. A new water storage tank will reduce annual maintenance costs and costs associated with pumping well water. Increasing water supply reliability will help to ensure that demands associated with the regional economy – including manufacturing, tourism and agriculture – can be met.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Replacement of leaking storage tank reduces the groundwater demand for the District. Reduced groundwater pumping by over 1 million gallons per year will protect groundwater resources for other beneficial uses.	
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	Improve storage and water quality to DAC.	
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	This project will reduce reliance on groundwater by over 1 million gallons per uear, 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.	
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	EQSD relies entirely on groundwater sources for its potable water. The American Valley also includes agricultural users that access the same	

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)
		aquifer. Any reduction in groundwater supplies could result in local water restrictions to agricultural users. Local, drought-proof measures such as this tank project provide 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	This project improves water use efficiencies and groundwater storage as extended drought poses limitations on water resources.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Provide additional water storage supply and repair aging infrastructure to minimize water loss from tank leakage.	
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 the project, and is willing to work with any necessary cooperators/stakeholders.	

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

The project is a multi-benefit project that addresses conservation, health, safety, welfare and drought impacts and is able to be implemented and provide benefits within an expedited timeline. Expedited funding is needed for this high-priority project because it provides additional local potable water supplies that are critical in times of drought.

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	Additional water storage, protection of system stability and improved water quality that serves DAC.
c. Environmental Justice[2]	■ N/A	
d. Drought Preparedness	☐ N/A	Additional water storage and reduction of groundwater demand, reduction of water loss from aging tank leakage.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Added water storage.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	It is estimated that the project will reduce groundwater pumping by over 1 million gallons for any given year – reducing energy consumption for pumping.
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	Water management – improving water delivery systems
Urban water use efficiency	■ Yes ☐ No	Improving water delivery infrastructure
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	Improvement of existing operations and 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	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Surface storage – regional/local	■ Yes ☐ No	New additional water storage tank, replacement of old leaking water storage tank
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Replacing leaking tank will increase water quality by decreasing opportunity for infiltration.
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	Reduce current demand to groundwater sources by replacing leaking tank.
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**		$47,450		$47,450
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**		$76,450		$76,450
d.	**Construction/Implementation**	$1,090,600	$74,700		$1,165,300
e.	**Environmental Compliance/ Mitigation/Enhancement**		$800		$800
f.	**Construction Administration**		$9,200		$9,200
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$111,060			$111,060
i.	**Grand Total (Sum rows (a) through (h) for each column)**	1,201,660	$208,600		1,410,260

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).**	Annual Operations and Maintenance budget funded by monthly customer service rates.
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)**	Increase groundwater demand due to leakage. Increased risk of MCL violations due to contamination risks associated with tank leaks. Increased risk of catastrophic tank failure due to seismic shifts and instability.

Match funding will be provided by the EQSD Capital Improvement Program. Water rates have been structured to create a sinking fund for this purpose.

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.

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	Engineer's Assessment Completed		
b. Final Design	☐	☐ Yes ☐ No ☐ N/A		2 months after funding received	4 months after funding received
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☐ No ☐ N/A		4 months after funding received	7 months after funding received
d. Permitting	☐	☐ Yes ☐ No ☐ N/A		7 months after funding received	8.5 months after funding received
e. Construction Contracting	☐	☐ Yes ☐ No ☐ N/A		8.5 months after funding received	9 months after funding received
f. Construction Implementation	☐	☐ Yes ☐ No ☐ N/A		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 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 Capital Improvement Plan
b. List technical reports and studies supporting the feasibility of this project.	Engineers Report of the project (attached)
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Replacing the 800,000 gallon concrete tank with a new steel tank of equal size would save the Region about 1 million gallons per year of groundwater and ensure the District of a structurally sound, seismic force resisting tank for water storage and reliability. The volume of water saved by the project was calculated as the sum of the water that was observed leaking from the facility. The May 23, 2013 magnitude 5.7 earthquake that struck the south of Lake Almanor in Lassen Volcanic National Park created additional leaks and elevated the District's concern over potential failure and increased leaking.
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-4: Water Tank 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)

- X 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
- X Unmet local water needs (drought)
- ☐ Increased invasive species

Reliable water storage without the concerns of catastrophic tank failure of a 51-year-old leaking tank. Improved water quality.

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
- X Increasing seasonal water use variability
- ☐ Unmet in-stream flow requirements
- ☐ Climate-sensitive crops
- ☐ Groundwater drought resiliency
- ☐ Water curtailment effectiveness

Increased water storage and tank dependability

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
- X 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
- X Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

Improved municipal water supply reliability.

Improved water supply reliability allows water to be available to fight wildfires with a reduced impact on supplies needed to meet existing demands.

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

MS-4: Water Tank Project

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	2	0
Cranes	1	14	11
Graders	1	3	1
Tractors/Loaders/Backhoes	1	8	2
Other Construction Equipment	1	14	1
Cement and Mortar Mixers	1	1	0
			0
			0
			0
			0
		Total Emissions	**16**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
3	300	**1**

[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 $MTCO_2e$
5	20	10	**0**

[ ] 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-4: Water Tank Project

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
150	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

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

It is estimated that the project will reduce groundwater pumping by over 1 million gallons for any given year – reducing energy consumption for pumping.

GHG Emissions Summary

Construction and development will generate approximately:	18	$MTCO_2e$
In a given year, operation of the project will result in:	0	$MTCO_2e$

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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	Gold Mountain Community Service District (GM CSD)
Name of Primary Contact	Ivan Gossage, General Manager
Name of Secondary Contact	Rich McLaughlin, Board President
Mailing Address	150 Pacific Street, Portola, CA 96122
E-mail	gossageivan@gmail.com rich.mclaughlinGMCSD@gmail.com
Phone	(530) 832-5945
Other Cooperating Agencies / Organizations / Stakeholders	None
Is your agency/organization committed to the project through completion? If not, please explain	Yes. Project is included in our long-term capital plan.

II. GENERAL PROJECT INFORMATION

Project Title	MS-7: High Elevation Water Tank & Well
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** **Water Supply/Water Quality** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Phase 1: Construction of a new water storage tank at an elevation of 5670' to ensure a positive supply of domestic water distributed via gravity flow to all locations in the service area. The current domestic water system relies on two 125,000-gallon tanks at an elevation of 5170', which is insufficient to provide water pressure to roughly 32% of properties; currently served by multiple booster pump stations only. Phase 2: Drilling a high altitude well to service the new tank. Lower altitude existing wells and the limited distribution system are insufficient to meet long-term community requirements. Drought conditions, compounded by the hard rock geology, limit the groundwater supply even in wet years. Existing wells were originally rated at capacities over two

	times their current output. The new well combined with the new tank and associated distribution lines will help provide a sufficient and reliable water system to meet all community requirements. Domestic Water Reliability - This project will increase the reliability and efficiency of the CSD's domestic water system. The current system, installed by the original bankrupt developer, is insufficient to meet community demands, and due to the need to pump water to a large segment of the community, the system is complex, costly to maintain, and at times unreliable during peak use. Emergency Water Supply - The project will provide for a viable water supply for structural firefighting and wild land fire suppression through much of the community's hydrant systems that currently rely on booster pump pressure. Water conservation – The current pressurized system is prone to increase severity of water loss due to leaks. Booster pumps do not efficiently provide consistent pressure to the system and cause parts of the system to be unnecessarily prone to under/over-pressurization and increase the occurrence of leaks and pressure losses.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The new storage tank will be located on CSD property, GM lot P at the highest point on the Eagle's nest loop located in the SE corner of the CSD service area between lots 354 and 355. The location of the new well has not yet been identified but will depend on hydrologic studies of likely locations in proximity to the new storage tank.
Latitude:	39° 45' 20.81" N
Longitude:	120° 30' 14.89" W

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	The new well, in a different fractured granite aquifer, will reduce over pumping of existing wells allowing for more natural recharge rates for those deep wells.	The new well is anticipated to provide an additional 200 acre-feet or more annually to CSD supply.

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)
Reduce potential for catastrophic wildland fires in the Region.	■ Yes ☐ N/A	A secondary objective of the high altitude storage tank/well is to provide greatly increased availability of emergency water supplies available to firefighters.	Thousands of acres of wild land will benefit by the reduced wildfire potential.
Build communication and collaboration among water resources stakeholders in the Region.	■ Yes ☐ N/A	These improvements will present significant collaboration opportunities between the CSD, the HOA, and commercial entities in the district	Many community members, businessmen and women and resource managers will work together.
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Gold Mountain Community Service District is a municipal service provider. This project represents a very pro-active action to contribute in a positive way to regional water supply management and long-term water quality.	Many State and local water management officials interact together.
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	Project solves a major challenge for the CSD by providing a long-term solution for domestic water supply management.	Small CSD's must overcome daunting economic challenges.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Project will significantly relieve pressure on two existing wells to protect the fragile fractured granite aquifers allowing more natural recharging.	40,000 gallons per day or more of water pumping from existing wells can be eliminated.

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)
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.	All people benefit directly when water resources are protected.
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Project will reduce the amount of pumping required from existing wells and will allow for a more balanced approach to aquifer management, groundwater withdrawal and aquifer recharge.	An approximate 33% reduction of groundwater pumping from existing sources can be achieved if the new high altitude well is brought on-line.
Improve coordination of land use and water resources planning.	■ Yes ☐ N/A	A major commercial golf course operates within the CSD region with their own private wells. Managing ground water resources across the district is required. Coordination and planning by all concerned entities including the golf course and the HOA will be enhanced.	Golf course water well impacts on CSD supply and the shared aquifer will be less if the project is implemented.
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	Developing a gravity flow domestic water system for the entire community will materially improve district efficiency/reliability and reduce operating costs.	Consistent water pressure in the system will reduce leaks and other system failures. Pumping costs will be reduced.
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	An important element of this project is to increase the CSD's tolerance for continued drought by increasing storage and delivery capacity to ensure adequate supplies of domestic water to district users.	Declining water levels in community wells can be better managed with the project's addition of a well in a different aquifer with a gravity fed delivery system.
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	The major objective of this project in improved reliability and efficiency of the district's domestic water supply.	360,000 gallons of new water storage will ensure peak water demands are met.

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)
Enhance public awareness and understanding of water management issues and needs.	■ Yes ☐ N/A	The CSD has undertaken a major outreach effort to inform our owners of the IRWM project and goals, and the importance of long-term capital projects to ensure workable and effective CSD services.	Hundreds of community members will be aware of the projects benefits.
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	The GM CSD is fully prepared to work with the IRWM and the county to administer any resultant grant and see this project through to completion. We are prepared to resource accordingly.	Numerous project stakeholders will be able participate in developing and implementing this important IRWM project.

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

The GM CSD sees wide benefits to this project across the spectrum of Municipal Service Group IRWM objectives. The foremost benefit of this project is efficient long-term delivery of domestic water to our residential and commercial customer in the growing region of Eastern Plumas County. Other important benefits include improved management of groundwater resources, reliable water supply during peak demand, installation of sustainable infrastructure, implementation of green systems, and operational and managerial preparation for climate change impacts.

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	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.
c. Environmental Justice[2]	☐ N/A	The GM CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	☐ N/A	Project will reduce the demand on two existing community wells which are experiencing slow degradation as the drought continues. This project will ensure delivery capacity and allow a more efficient recharge to our fractured granite aquifer.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	CSD is aggressively responding to the California drought emergency through outreach programs, limitations on outdoor irrigation, reducing hazardous fuel loads, and other measures. As of December 31, 2015 we have reduced water usage by 27% since 2013. Our owners are very aware of the need to adapt to changing climate patterns.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	If the CSD can reduce the amount of fossil fuel generated electricity it uses for pumping, there will be a net positive reduction in greenhouse gas emissions. The project will eliminate the reliance of booster pump stations to pressurize water service zones. Systems pressure will be maintained by gravity, thus reducing electrical energy and greenhouse gas emissions.
g. Other expected impacts or benefits that are not already mentioned elsewhere	☐ N/A	While the primary objectives of this project is are to improve the ability of the CSD to reliably and efficiently deliver domestic water, secondary benefits include increased emergency water capacity and reliability as well as improved overall water conservation.

[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	The existing district distribution system is terribly inefficient due to the dependence on pumping stations to supply roughly 32% of the community including emergency water (hydrant) supplies. This project will all but eliminate the need for pumps except to fill and transfer water between storage tanks
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Project will dramatically improve efficiency of domestic water conveyance across large segments of our service area.
System reoperation	■ Yes ☐ No	Project will include re-engineering of the existing distribution system to improve reliability and efficiency of domestic water delivery
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	■ Yes ☐ No	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources. Coordinate use of wells across the system will allow water managers to better manage limited ground water reserves.
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	☐ Yes ■ No	
Surface storage – regional/local	■ Yes ☐ No	Increase storage capacity will better ensure the district's ability to deliver domestic water to all service area users.
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	This project is a critical element of the district's long-term capital plan to deliver domestic, potable water to all customers.
Groundwater remediation/aquifer remediation	■ Yes ☐ No	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources. Coordinate use of wells across the

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		system will allow water managers to better manage limited ground water reserves.
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	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources allowing the existing aquifers to efficiently recharge.
Sediment management	☐ Yes ■ No	
Watershed management	☐ Yes ■ No	
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	■ Yes ☐ No	CSD is aggressively responding to the California drought emergency through outreach programs to engage our customers in water discussions. The need for this project has been widely discussed among owners in the small district
Water and culture	☐ Yes ■ No	
Water-dependent recreation	☐ Yes ■ No	
Wastewater/NPDES	☐ Yes ■ No	

Other RMS addressed and explanation:

Education: the project offers an opportunity to inform the community water resource management.
Planning for Sustainability: the project helps to build sustainable systems and project elements.
Operational Strategies: the project improves operational efficiency and enhances operational performance strategies.

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**	$0	$20,000	$0	$20,000
b.	**Land Purchase/Easement**	$0	$0	$0	$0
c.	**Planning/Design/Engineering / Environmental**	$115,150	$76,850	$0	$192,000
d.	**Construction/Implementation**	$1,430,000	$0	$0	$1,430,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$0	$10,000	$0	$10,000
f.	**Construction Administration**	$199,000	$0	$0	$199,000
g.	**Other Costs**	$0	$0	$0	$0
h.	**Construction/Implementation Contingency**	$286,000	$0	$0	$286,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$2,030,150	$106,850	$0	$2,137,000

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	$1,733,107	$5,000	High Altitude Storage Rank
	Phase 2	$403,893	$12,000	High Altitude Well
	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).**	Increased annual cost of O&M will be included in water user fees.
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)**	Without outside funding this project will not be implemented in the conceivable future. The reliability of water supply delivery to approximately 1/3 of the CSD will remain a primary concern for CSD operations. Current inefficient multiple lift pumping systems will remain in operation.

*List all sources of funding: *We could contribute matching funds from our reserves. If that is insufficient, the district currently has no debt, but incurring long-term debt may be a necessary consideration.*
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	Tank site review complete. Pipe route analyzed. Need to select well location.	4/16	9/16
b. Final Design	■	☐ Yes ■ No ☐ N/A	Prepare design and construction drawings, specifications and bidding documents.	12/15	6/15
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Submit request to Plumas County to renew Project Exemption.	12/15	3/16
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Obtain well drilling permits; County Health plan review.	12/15	4/16
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Project Bidding and Award.	6/16	8/16
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Construction and Construction Administration.	9/16	9/17
Provide explanation if more than one project stage is checked as current status			Final location of well to be determined and test hole drilling and pump tested. A preliminary schematic design/plan for the project has been developed. All other design work is on hold pending project funding.		

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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	Hydrogeological Evaluation and Groundwater Development Recommendations for GM CSD 2006 Groundwater Monitoring Network Recommendations November 2006 Master Plan Report for GM CSD 2007
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	CSD has completed a review of all known documents and regulations. We are well versed in both water storage and well development through previous projects. We've completed initial engineering design review including site location and evaluation for the new tank. We have also completed initial hydrologic studies of possible well sites including one test well but have not yet identified the best site.
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. Modern technologies, including new energy efficient equipment and processes, that will enhance project sustainability are proposed. Gravity fed delivery reduces the need for booster pumping. The project will utilize natural green processes to manage stormwater runoff at both the tank and well sites.
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. Groundwater basin undefined; however project is located in Hydro Unit Number 518.3 of the Basin Plan.

[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-7: Stage 1, High Elevation Water Tank

Project applicant: Gold Mountain Community Service 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

New water tanks will substantially increase the district's ability to deal with drought conditions through increasing the district's annual water storage capacity. Storing water in periods of abundant supply and thereby reducing pressure on the district's wells during periods of drought provides for better resiliency for the overall watershed.

The high altitude tank will also significantly reduce energy use as it will allow the district to convert a large percentage of our customers currently on a pressurized domestic water system to be gravity fed. The tank project is in conjunction with a high elevation well to service the new tank.

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

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new tank will reduce pressure on the current system as well as on our two critical domestic water wells. Increased storage capacity during the wet months will further reduce pressure on our wells in the drier months, allowing for the aquifers to more efficiently recharge during the dry months.

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.)

The district currently as limited water storage capacity, both in tanks and available surface sources to fight either house or wildland fires. The high altitude tank both increases capacity but just as importantly provides a gravity pressurized source of emergency water in the event the district suffers from lack of power likely to be expected during an emergency.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows.

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

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production and storage capacity results in relatively full time production from our wells and frequent turnover of water storage. The increased capacity of this system will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

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

MS-7: Stage 1-High Elevation Tank

GHG Emissions Analysis

Project Construction Emissions

Y 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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	14	4
Excavators	1	14	6
Surfacing Equipment	1	14	10
Cranes	1	5	4
			0
			0
			0
			0
			0
			0
		Total Emissions	**24**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	120	**1**

Y 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 $MTCO_2e$
3	45	120	**6**

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

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

MS-7: Stage 1-High Elevation Tank

Project Operating Emissions

N The project requires energy to operate. If yes:

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

N The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
3	**-19**

*A negative value indicates GHG reductions

N The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

Y The project will include new trees. If yes:

Acres of Trees Planted	Total $MTCO_2e$
1	**-186**

*A negative value indicates GHG reductions

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

GHG Emissions Summary

Construction and development will generate approximately:	31	$MTCO_2e$
In a given year, operation of the project will result in:	-205	$MTCO_2e$

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-7: Stage 2, High Elevation Well

Project applicant: Gold Mountain Community Service 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

The new well will substantially increase the district's ability to deal with drought conditions by reducing pressure on the district's two existing wells. Additionally, this well is planned as stage 2 of the planned high elevation water project. The well will provide an immediate and local source of domestic water to feed the new high altitude water storage tanks. Storing water in periods of abundant supply and thereby reducing pressure on the district's wells during periods of drought provides for better resiliency for the overall watershed.

The high altitude well/tank will also significantly reduce energy use as it will allow the district to convert a large percentage of our customers currently on a pressurized domestic water system to be gravity fed. Even without the tank, the district has a long term plan for a high altitude well to tap into and as yet untapped aquifer zone.

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

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new well/tank will reduce pressure on the current system as well as on our two critical domestic water wells. Increased storage capacity during the wet months will further reduce pressure on our wells in the drier months, allowing for the aquifers to more efficiently recharge during the dry months.

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.)

The district currently as limited water storage capacity, both in tanks and available surface sources to fight either house or wildland fires. The high altitude well/tank increases capacity but just as importantly provides a gravity pressurized source of emergency water in the event the district suffers from lack of power likely to be expected during an emergency.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows.

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

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production capacity results in relatively full time well production during the summer months. The increased capacity of this system will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

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

MS-7: Stage 2-High Elevation Well

GHG Emissions Analysis

Project Construction Emissions

Y 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 $MTCO_2e$
Bore/Drill Rigs	1	7	7
Excavators	1	7	3
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**10**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	120	**1**

Y 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 $MTCO_2e$
2	10	120	**1**

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

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

MS-7: Stage 2-High Elevation Well

Project Operating Emissions

Y The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
39,420	kWh (Electricity)	**8**
	Therm (Natural Gas)	**0**

N The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
1	**-3**

*A negative value indicates GHG reductions

N The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

N The project will include new trees. If yes:

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

*A negative value indicates GHG reductions

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

GHG Emissions Summary

Construction and development will generate approximately:	12	$MTCO_2e$
In a given year, operation of the project will result in:	5	$MTCO_2e$

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	Gold Mountain Community Service District (GM CSD)
Name of Primary Contact	Ivan Gossage, General Manager
Name of Secondary Contact	Rich McLaughlin, Board President
Mailing Address	150 Pacific Street, Portola, CA 96122
E-mail	gossageivan@gmail.com rich.mclaughlinGMCSD@gmail.com
Phone	(530) 832-5945
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. Project is included in our long-term capital plan.

II. GENERAL PROJECT INFORMATION

Project Title	MS-8: GM CSD Water Reclamation Facility
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)	**Background.** Gold Mountain was developed in the 1990's with a limited wastewater supply, insufficient to meet long-term plans of the community. All 408 home sites were sold prior to the original developer declaring bankruptcy and prior to installation of promised infrastructure improvements. The community reorganized into a public community service district (CSD) in 1996 with essentially zero initial funding. Through sound fiscal management, establishing a practical rate structure, and investing in professional engineering studies, the CSD developed a master plan for wastewater and domestic water management. The CSD master plan is based on trigger points in long-term service requirements that will

	call for improvements to wastewater handling capacity and effluent quality, as well as for domestic water supply, storage and distribution improvements to complete required infrastructure. **Description.** The existing wastewater system in the CSD is comprised of individual Septic Tank Effluent Pumping (STEP) at each home site, which pump effluent into a common low pressure wastewater main feeding two community leach fields for disposal. The CSD needs to install a modern Water Reclamation treatment and pumping facility to reclaim wastewater for irrigation at a golf course and to increase water reserves available to fight wildfilres within the Gold Mountain CSD service area. Reclaiming treated effluent to the golf course will reduce the depletion of groundwater resources that are shared by the CSD and Golf Course operator; and improve the water quality of the effluent being discharged into the groundwater by the CSD. This project will significantly increase the quality of wastewater to the leach fields, as well as provide additional filtration of the treated wastewater effluent for reclaim to a golf course or use in fire fighting in the area.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The project site is located approximately 4.5 miles SW of the intersection of State Route 70 and Highway A15 in Portola, CA. The middle fork of the Feather River is located approximately 800 feet NW of the project site.
Latitude:	39° 45’ 58.5” N
Longitude:	120° 32’ 09.29” W

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	Wastewater reclamation will reduce demand on community wells allowing for more efficient recharging of our shared fractured granite aquifers.	Ground water pumping can be reduced 43,000 gallons per day or more.
Reduce potential for catastrophic wildland fires in	■ Yes	A secondary effect of this project is to provide a new source of	Thousands of acres of wild land

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)
the Region.	☐ N/A	water for wildland firefighting and irrigation of public areas in the community. Both uses complement our aggressive hazardous fuel reduction program.	will benefit by the reduced wildfire potential.
Build communication and collaboration among water resources stakeholders in the Region.	■ Yes ☐ N/A	Reclaiming community wastewater and reusing for irrigation on public areas and the private golf course represents significant collaboration between the CSD, the HOA, and commercial entities in the district.	Many community members, businessmen and women and resource managers will work together.
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	This project represents a very pro-active action to contribute in a positive way to regional water supply management and long-term water quality.	Many State and local water management officials interact together.
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	Project solves a major challenge for the CSD by providing a long-term solution for wastewater management.	Small CSD's must overcome daunting economic challenges.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Project will significantly improve effluent quality through advanced wastewater treatment and reclamation to further protect the aquifer that supports the community.	Groundwater sources serving 1,290 acres of the CSD community will benefit from wastewater reclamation.

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)
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	The GM CSD falls entirely within the greater Eastern Plumas County disadvantaged community.	All people benefit directly when water resources are protected.
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	High quality treatment and reclamation of wastewater for irrigation use is an important component of managing our recharge capability and protecting ground water resources.	As much as 360 acre-feet annually can be delivered to reclamation use protecting ground water sources.
Improve coordination of land use and water resources planning.	■ Yes ☐ N/A	The GM CSD shares an aquifer with private golf course operators (private wells). Coordination of scarce resources is critical to the success of both entities.	Golf course water demands will be less on the local aquifer if the project is implemented.
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	Reclaiming wastewater for use on natural and developed landscape environments will have a significant positive effect on our community water use efficiency.	More than 150 acres of open space and landscape environment will be benefited.
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	Wastewater reclamation is a key component of the CSD's overall drought strategy to reduce demand on our wells offsetting potential negative impacts from climate change.	Declining water levels in community wells will abate with better resource management.
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Reclaiming community wastewater will materially improve aquifer reliability and enhance overall water supply and delivery efficiency.	2,300,000 gallons of treated WW can be used to replace well water demands annually.
Enhance public awareness and understanding of water management issues and needs.	■ Yes ☐ N/A	While a secondary benefit, this project will have a direct impact on both our community and commercial awareness of the importance.	Info on the project and water conservation will be provided to hundreds of community members through the HOA.

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)
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	The GM CSD is fully prepared to work with the IRWM and the county to administer any resultant grant and see this project through to completion. We are prepared to resource accordingly.	Numerous project stakeholders will be able to participate in developing and implementing this important IRWM project.

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

The GM CSD sees wide benefits to this project across the spectrum of Municipal Service Group IRWM objectives. The foremost benefit of this project is long-term water conservation which is critical to the growing region of Eastern Plumas County. Other important benefits include protection of groundwater sources, more efficient use of groundwater resources, installation of sustainable infrastructure and green systems, preparation for climate change impacts and protecting the Feather River.

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	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.
c. Environmental Justice[2]	■ N/A	
d. Drought Preparedness	☐ N/A	Project will reduce the demand on community wells which are experiencing slow degradation as the drought continues. Wastewater reclamation will allow a more efficient recharge to our shared fractured granite aquifer.

e. Assist the region in adapting to effects of climate change[3]	☐ N/A	As Eastern Plumas County has shifted to a recreational based economy, the demand for parks and golf courses is incongruent with the need to conserve water. Wastewater reclamation will become an important component in adapting to climate change.
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	The project presents an opportunity to inform the community about the importance of the management of water resources and allows members of the community to participate in protecting important natural resources, sustaining infrastructure systems and improving the environment and quality of life.

[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	Reclaiming wastewater for irrigation use decreases demand on wells and contributes to the long-term health of the aquifer.
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Providing operational ability to irrigate a golf course with recycled water rather than ground water.
System reoperation	■ Yes ☐ No	Improvement of existing operations and management procedures to meet water needs more efficiently and reliably.
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	■ Yes ☐ No	Recharging groundwater storage using recycled water maximizes the availability and reliability of community water supplies.
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	■ Yes ☐ No	Project involves reclaiming domestically produced wastewater and recycling it for irrigation with a resulting significant reduction well production.
Surface storage – regional/local	☐ Yes ■ No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ■ No	
Groundwater remediation/aquifer remediation	■ Yes ☐ No	Reducing demand on community wells will result in more efficient aquifer recharge and long-term remediation.
Matching water quality to water use	■ Yes ☐ No	Using reclaimed water for irrigation is a sound practice and reduces demand for fresh water production from community wells.
Pollution prevention	■ Yes ☐ No	The project reduces the possibility of ground water contamination from leached water and eliminates the future possibility of leach field failure as the system ages. If the system fails the wastewater could contaminate local surface waters.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
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	Wastewater reclamation through additional treatment reduces the amount of lesser-treated water returning to the aquifer. Increasing the treatment of wastewater improves the quality of water returned to the ground to recharge the aquifer.
Sediment management	☐ Yes ■ No	
Watershed management	■ Yes ☐ No	Using reclaimed water will reduce pressure on the shared aquifer thereby improving ground water retention and storage
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	■ Yes ☐ No	Convincing the community at large that the use of recycled water for irrigation is a safe and efficient practice improves the public's awareness of water issues and the important need for long-term new solutions.
Water and culture	■ Yes ☐ No	As stated above, changing public attitudes towards water recycling has cultural impacts as to how the public views the use and conservation of this important resource.
Water-dependent recreation	■ Yes ☐ No	In the case of the GM CSD, the local commercial golf course is the primary recreational resource in the community. This project will use the reclaimed water as an important source for golf course irrigation, which will assist in "keeping the course green" for recreational purposes.
Wastewater/NPDES	☐ Yes ■ No	

Other RMS addressed and explanation: Education: the project offers an opportunity to inform the community of water resource management. Planning for Sustainability: the project helps to build sustainable systems and project elements. Operational Strategies: the project improves operational efficiency and enhances operational performance strategies.

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**	$0	$20,000	$0	$20,000
b.	**Land Purchase/Easement**	$0	$0	$0	$0
c.	**Planning/Design/Engineering / Environmental**	$110,000	$57,500	$0	$167,500
d.	**Construction/Implementation**	$1,280,000	$0	$0	$1,280,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$0	$15,000	$0	$15,000
f.	**Construction Administration**	$108,000	$0	$0	$108,000
g.	**Other Costs**	$0	$0	$0	$0
h.	**Construction/Implementation Contingency**	$260,000	$0	$0	$260,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$1,758,000	$92,500	$0	$1,850,500

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	$1,850,000	$120,000	Planning/Design/Construction
	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).**	Increased cost O&M will be included in sewer user fees.
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)**	Without outside funding this project will not be implemented in the conceivable future. Existing primary wastewater sub-surface effluent disposal fields will remain in service. The disposal fields may be near their service life. The topography and geography of the CSD severely limits the expansion of leach field capacity. The fields do not have the capacity to service project buildout. If the fields reach their service life or otherwise become overwhelmed there is a risk

		the wastewater will surface and runoff into local ephemeral streams that are tributary to the Feather River. An opportunity to protect water resources may be lost.

*List all sources of funding: *We could contribute matching funds from our reserves. If that is insufficient, the district currently has no debt, but incurring long-term debt may be a necessary consideration.*

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	Site review complete. Pipe route analyzed.		
b. Final Design	■	☐ Yes ■ No ☐ N/A	Select treatment process and equipment; prepare construction drawings, specifications and bidding documents.	12/15	6/15
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Submit application for Project Exemption.	12/15	3/16
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Special Use Permit. RWQ Report of Waste Discharge and preliminary Engineering Report.	12/15	4/16
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Project Bidding and Award.	6/16	8/16
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Construction and Construction Administration.	9/16	7/17
Provide explanation if more than one project stage is checked as current status			A preliminary schematic design/plan for the project has been developed. All other design work is on hold pending project funding.		

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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins Water Quality Order No. 97-10-DWQ-XXXX GW CSD Wastewater Treatment and Disposal System (in discovery)
b. List technical reports and studies supporting the feasibility of this project.	Master Plan Report for GM CSD 2007 Disposal Field Seepage Investigation October 2014 GM Leachfield Capacity Study 2015
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	GM CSD personnel have collected many years of data from both the wastewater and water operations. Soils investigations have been conducted to evaluate wastewater disposal field performance and infiltration rates. Extensive research on reclamation system compatible with the district's STEP primary treatment systems has been completed. Wastewater disposal capacity analysis has been conducted. Numerous domestic water well exploratory test wells have been drilled and tested. Pumping testing have been conducted on the domestic water supply wells serving the CSD.
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. Modern technologies, including new energy efficient equipment and processes, that will enhance project sustainability are proposed. The project will utilize natural green processes to manage storm water runoff at the reclamation site.
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. Groundwater basin undefined; however project is located in Hydro Unit Number 518.3 of the Basin Plan.

[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-8: Water Reclamation Facility

Project applicant: Gold Mountain Community Service 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

Currently all district waste water is treated in two large community drain fields. All water used to district landscaping currently comes from our domestic water system. In addition, the district's largest customer is a golf resort with an 18 hole golf course. While the resort has its own private wells for golf course irrigation, those wells tap into the same aquifers as those tapped by the district's two domestic wells. The district's planned water reclamation facility will produce a source of irrigation water for both district landscaping and for golf course irrigation which will significantly reduce pressure on the districts domestic water supply as well as the underlying aquifers. Water conservation measures enacted this year have already had a demonstrable effect the aquifer, water reclamation will help to continue to reduce pressure on the watershed.

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

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new water reclamation project will reduce pressure on the current system by reducing pressure on district wells as well as private customer wells. Reducing well demand during the drier months when irrigation requirements are at their peak will allow the aquifers to more efficiently recharge during these drier periods.

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.)

Using reclaimed water for irrigation use will reduce pressure on limited water storage reserves and enhance the community's ability to prevent catastrophic fires.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows. By providing reclaimed water for golf course and engineered habitat requirements in the dry months limits pressure on the aquifer during these critical months.

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

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production capacity results in relatively full time well production during the summer months. Reclaiming a significant percentage of waste water and applying it to irrigation will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

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

MS-8: GM CSD Water Reclamation Facility

GHG Emissions Analysis

Project Construction Emissions

Y 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 $MTCO_2e$
Excavators	1	15	7
Cement and Mortar Mixers	1	4	0
Cranes	1	2	2
Tractors/Loaders/Backhoes	2	15	8
Dumpers/Tenders	1	5	0
			0
			0
			0
			0
			0
		Total Emissions	**17**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
8	120	**1**

Y 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	100	120	**16**

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

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

MS-8: GM CSD Water Reclamation Facility

Project Operating Emissions

Y The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
438,000	kWh (Electricity)	**86**
	Therm (Natural Gas)	**0**

N The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
2	**-13**

*A negative value indicates GHG reductions

N The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

N The project will include new trees. If yes:

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

*A negative value indicates GHG reductions

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

Wastewater treatment operations are sources of GHGs such as CO2 and N2O. Modern, efficent and natural processes will be employed as part of the proposed project to reduce GHGs.

GHG Emissions Summary

Construction and development will generate approximately:	34 $MTCO_2e$
In a given year, operation of the project will result in:	73 $MTCO_2e$

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	Grizzly Lake CSD
Name of Primary Contact	Jared Recasens, Chief Operator
Name of Secondary Contact	Larry Terrill, Chairman, Board of Directors
Mailing Address	119 Delleker Drive, Portola, CA 96122
E-mail	glrid@att.net, jrwastewater@gmail.com
Phone	530-832-5225 Office, 530-927-8459 Cell
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. The CSD staff and board members will be instrumental in overseeing the grant process and ensuring proper implementation.

II. GENERAL PROJECT INFORMATION

Project Title	MS-9: Crocker Water Service Meters
Project Category	■ **Water Supply/Water Quality** ☐ **Environmental Protection/Restoration** ■ **Community Water/Wastewater** ☐ **Stakeholder/Public Collaboration and Education** ☐ **Working Landscape Viability**
Project Description (Briefly describe the project, in 300 words or less)	Project will consist of replacing all the illegal service laterals to meet UPC and install new water meters. Project is located in extremely steep elevation with several different pressure zones ranging from 85 psi to 230 psi. Every lateral needs to be upgraded from property line to mainline and install approx 120 radio read meters and computer software to monitor and read the system. Meters will be calibrated to accurately measure flow of water to meet Mfg. Specs. Additional fire hydrants will be added to meet NFPA standards to improve overall fire protection. Age of the system is 35-45 years. All laterals are DB120 electrical conduit not rated for potable water service use. Project will increase water conservation, ability to identify leaks and make system repairs to prevent water losses in the distribution system.

Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Project is located approximately 15 miles North of Portola, CA
Latitude:	39.870167degreesN
Longitude:	120.452727degreesW

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	We estimate there will be a 25-30% reduction in water use by identifying leaks and conservation by users when required to pay for actual use of water.	25-30% reduction in water use
Continue to actively engage in FERC relicensing of hydroelectric facilities in 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)
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	System is 35-45 years old - was not installed property. Nearing the end of its useful life. Needs to be brought up to UPC.	This project cannot be completed without grant funding.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Will be able to perform water loss audits and account for water loss.	Accounting of water losses. Repairing leaks to reduce losses.
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	The Crocker Water Meter Project falls entirely within a greater Eastern Plumas County DAC.	Replace unsafe pipes with new water delivery pipes.
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Protecting groundwater resources by reducing water use/loss by 25-30%.	Reduce water use/loss by 25-30%.
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	Will reduce municipal water use by approximately 25-30%.	Reduce water use/loss by 25-30%.
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	Project will reduce consumption of water by approximately 25-30%.	Reduce water use/loss by 25-30%.
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Will improve efficiency by eliminating the majority of leaks in system & reduce wear and tear on well pump and related appurtenances.	Replace unsafe and leaky pipes with new water delivery pipes.
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	GLCSD will work with the County to ensure proper administration and implementation of grant funding for this 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	The project is located entirely within a greater Eastern Plumas County disadvantaged community.
c. Environmental Justice[2]	☐ N/A	The CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	☐ N/A	Will be able to monitor use with installed meters and account for missing water. Perform comprehensive water audits.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Water use will be reduced by approximately 25 - 30 % per year.
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	
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Upgrade infrastructure facilities.
System reoperation	■ Yes ☐ No	Improvement of existing operations and management procedures of water facilities to meet needs more efficiently and reliably
Water transfers	Yes x No	
Increase Water Supply		
Conjunctive management	☐ Yes ■ No	
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	☐ Yes ■ No	
Surface storage – regional/local	☐ Yes ■ No	
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Improve infrastructure by upgrading distribution lines & installing water meters.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
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	
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**	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?** ☐ **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).**	Anticipated revenue from user fees will help maintain. Cut down on maintenance costs by removing illegal service laterals which cost several thousand dollars to repair each time system breaks.
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)**	Continue to repair lines. Will be unable to meet CA water reductions. System upkeep will increase, 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/).

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	Evaluated by district staff. Needs expert evaluation	TBD Pending Funding	
b. Final Design	☐	☐ Yes ■ No ☐ N/A	Create final design & engineering for project	TBD	
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Approve & file CEQA documentation including negative declaration	TBD	
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Project engineer will prepare & submit necessary permits	TBD	
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Request for proposal thru notice to proceed.	TBD	
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Complete project and sign off	TBD	
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.).	
b. List technical reports and studies supporting the feasibility of this project.	
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Water meters will enable GLCSD to perform water loss audits and account for water loss. The US EPA Water Conservation Plan Guidelines include water metering and water accounting and loss control as Level 1 measures for water conservation. According to Renwick and Green (2000) and Beecher et al. (1994) charging customers by volume sends a price signal to customers to use the resource more efficiently. Additionally data from other water purveyors indicate reductions in individuals' use of water when users are required to pay for the amount of water used as compared to a flat rate for water.
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. Grizzly Valley GWB

[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-9 Crocker Water Service 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 non road 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

Project will consist of replacing all the illegal service laterals to meet UPC. This project meets drought preparedness by achieving long-term reduction of water use and promoting water conservation. Objective of this project is to be able to find and fix leaks in water system and be able to record usage by individuals; enforce reduction in water usage. Having meters installed, we estimate 25 - 30% reduction 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 improve efficiency by eliminating the majority of leaks in an old system that was not installed properly. It needs to be brought up to UPC. We estimate the groundwater resources will be protected by reducing water use by 25 - 30% by user conservation of water. Having meters will allow us to monitor usage by meter.

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.)

We will be protecting groundwater resources by reducing domestic water use by 25 - 30%. Efficiency will be improved by eliminating the majority of leaks in the system and will also reduce wear and tear on well pump. Additional fire hydrants will be added to meet NFPA standards to improve overall fire protection.

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

MS-9 Crocker Water Service Meters

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 $MTCO_2e$
Excavators	2	150	131
Paving Equipment	1	30	8
Off-Highway Trucks	3	150	559
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**697**

[X] 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 $MTCO_2e$
10	90	**1**

[X] 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 $MTCO_2e$
10	150	100	**51**

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

CO produced by construction activities

[ ] 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-9 Crocker Water Service Meters

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	750 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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

II. GENERAL PROJECT INFORMATION

Project Title	MS-10: Crocker Welch Ground Tank Repair
Project Category	■ **Water Supply/Water Quality** ☐ **Environmental Protection/Restoration** ■ **Community Water/Wastewater** ☐ **Stakeholder/Public Collaboration and Education** ☐ **Working Landscape Viability**
Project Description (Briefly describe the project, in 300 words or less)	This project includes repairing and bringing up to code the Crocker/Welch 211,000-gallon water tank. Project will retrofit the deteriorated water storage tank to provide a reliable water supply to customers. The tank is rusting on the inside and needs to be made OSHA Compliant and meet NFPA and AWWA codes. Tank was built in 2002.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Project is located approximately 15 miles North of Portola, CA
Latitude:	39.870167 degrees N
Longitude:	120.452727 Degrees W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Grizzly Lake CSD is a municipal service provider. This project will improve water quality and supply by meeting water standards.	
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	Grant funding for this project is necessary to ensure that Grizzly Lake CSD will be able to continue to provide drinkable water to approximately 120 households using existing water supply.	

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)
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Funding is urgently needed to reduce the amount of groundwater used to provide a reliable water supply for both domestic use and emergency fire protection.	Repairing this water storage tank will save approximately 20% of the groundwater currently being pumped from the deep well.
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	Project is located entirely within a greater Eastern Plumas County disadvantaged community.	
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	By reducing leakage more water will be available to users, which will in turn help protect groundwater resources.	Project will save approximately 20% of the groundwater currently being pumped from the deep well.
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	By saving approx 20% of current water used, efficiency of water use is increased.	20% more efficient???
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	Use 20% less groundwater in a climate when drought limits surface and groundwater supplies.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Maintaining infrastructures will allow system operation to improve efficiency of water supply.	
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	The Grizzly Lake CSD is fully prepared to work with the IRWM and the County to administer any 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 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	Will address water needs of a dis-advantaged community which is located within a greater Eastern Plumas County DAC
c. Environmental Justice[2]	☐ N/A	The Grizzly Lake CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. The repaired tank will benefit all users in the service area.
d. Drought Preparedness	☐ N/A	Repairing this water storage tank will save approximately 20% of water currently used.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	We need to be aware and take action to conserve water whenever we can.
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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Repair and improve infrastructure
System reoperation	☐ Yes ■ No	More efficient water use to reduce demand on groundwater.
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	
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Maintain and upgrade infrastructure facilities.
Groundwater remediation/aquifer	☐ Yes ■ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
remediation		
Matching water quality to water use	☐ Yes ■ No	
Pollution prevention	■ Yes ☐ No	Replacing the rusting and leaky tank with a tank compliant with current regulations will reduce the possibility of water contamination
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	
People and Water		
Economic incentives	■ Yes ☐ No	Will reduce wear and tear on well pump
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**	1,000			1,000
b.	**Land Purchase/Easement**	0.00			0.00
c.	**Planning/Design/Engineering/ Environmental**	22,000			22,000
d.	**Construction/Implementation**	165,000			165,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	0.00			0.00
f.	**Construction Administration**	2,000			2,000
g.	**Other Costs**	0.00			0.00
h.	**Construction/Implementation Contingency**	10,000			10,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	200,000			200,000

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).**	Operation and maintenance costs will be absorbed by our existing employees.
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)**	System upkeep will increase. Reliability of safe drinking water for 120 households will decrease. Unable to meet CA water reductions.

*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	Evaluated by district staff. Will need Engineer/expert evaluation.	Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ■ No ☐ N/A	Create final design & engineering for project.	2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Anticipate negative declaration for CEQA	4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Project engineer will prepare & submit necessary permits	7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Request for proposal thru notice to proceed	8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Complete project and sign off	9 months after funding secured	12 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.).	Grizzly Hill CSD Capital Improvement Plan???
b. List technical reports and studies supporting the feasibility of this project.	Anticipate an Engineer's Report
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Retrofitting the deteriorating 211,000-gallon water tank will ensure OSHA compliance and that NFPA and AWWA codes are met. The project's improved efficiency will reduce groundwater use by approximately 20%, and provide safe drinking water to 120 households and a water supply for emergency fire protection.
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. Grizzly Valley GWB

[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-10 Crocker Welch Ground Tank Repair

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 will help achieve long-term reduction of water use and promote water conservation. Project will retrofit the deteriorated water storage tank to provide a reliable water supply to customers. Needs to be made OSHA compliant and meet NFPA and AWWA codes.

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

By reducing leakage more water will be available to users, which will in turn help protect groundwater resources. Repairing this water storage tank will save approximately 20% of the groundwater currently being pumped from the deep well.

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.)

By saving approximately 20% of current water used, efficiency of water is increased.

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

MS-10: Crocker Welch Ground Tank Repair

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 $MTCO_2e$
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**0**

[X] 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 $MTCO_2e$
4	100	**1**

[X] 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 $MTCO_2e$
4	30	100	**4**

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

[X] 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-10: Crocker Welch Ground Tank Repair

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	5 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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

II. GENERAL PROJECT INFORMATION

Project Title	MS-11: Delleker Water Meters
Project Category	■ **Water Supply/Water Quality** ☐ **Environmental Protection/Restoration** ■ **Community Water/Wastewater** ☐ **Stakeholder/Public Collaboration and Education** ☐ **Working Landscape Viability**
Project Description (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.
Project Location Description (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

Latitude:	39.8114DegreesNorth
Longitude:	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.

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ 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.	☐ 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)
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ 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.	■ Yes ☐ 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.	■ Yes ☐ N/A	Project is located in a Severely Disadvantaged Community.	
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Protection of groundwater resources by reducing approx 25 - 30% reduction in water use.	
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ 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.	■ Yes ☐ 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.	■ Yes ☐ 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.	☐ Yes ■ N/A		
Address economic challenges of agricultural producers.	☐ Yes ■ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for	■ Yes ☐ N/A	The Grizzly Lake CSD is fully prepared to work with the IRWM and the County to administer any	

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)
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 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	Entire project is located in a Severely Disadvantaged Community.
c. Environmental Justice[2]	☐ 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.
d. Drought Preparedness	☐ N/A	Will be able to monitor use with installed meters. Account for missing water by performing comprehensive water audits.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Reducing water use by approx 9 million gallons per year.
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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Upgrade infrastructure facilities.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
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	
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Improve infrastructure by upgrading mainlines, distribution lines and installing water meters.
Groundwater remediation/aquifer remediation	☐ Yes ■ No	
Matching water quality to water use	■ Yes ☐ No	Improved infrastructure will allow system operation to improve water quality.
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	
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**	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?** ☐ **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).**	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?**	☐ **Yes** ■ **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/).

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	Evaluated by district staff. Will need Engineer/expert assistance.	Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ■ No ☐ N/A	Create final design & engineering for project.	2 months after funding received	4 months after funding received
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Anticipate negative declaration. Approve & file CEQA	4 months after funding received	7 months after funding received
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Project engineer will prepare & submit necessary permits	7 months after funding received	8.5 months after funding received
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Request for proposal thru notice to proceed.	8.5 months after funding received	9 months after funding received
f. Construction Implementation	☐	■ Yes ☐ No ☐ 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 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.).	Grizzly Lake CSD Capital Improvement Plan
b. List technical reports and studies supporting the feasibility of this project.	Anticipate an Engineer's Report
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	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.
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. Humbug 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-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

MS-11: Delleker Water Meters

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 $MTCO_2e$
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
		Total Emissions	**105**

[X] 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 $MTCO_2e$
15	90	**2**

[X] 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 $MTCO_2e$
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.

MS-11: Delleker Water Meters

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	168 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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

II. GENERAL PROJECT INFORMATION

Project Title	MS-12: Delleker Water Tank Rehab
Project Category	■ **Water Supply/Water Quality** ☐ **Environmental Protection/Restoration** ■ **Community Water/Wastewater** ☐ **Stakeholder/Public Collaboration and Education** ☐ **Working Landscape Viability**
Project Description (Briefly describe the project, in 300 words or less)	Grizzly Lake CSD in Portola, CA, stores water in a 300,000-gallon storage tank that was built in 2000. It provides approximately 400 households in this severely disadvantaged community with essential domestic water supply and water for emergency fire protection. The Delleker Tank requires repairs to bring it up to meet OSHA, NFPA, AWWA and EPA codes. It is estimated that approximately 4,200,000 gallons of water will be saved annually by repairing the leaks and refurbishing this tank.
Project Location Description (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

Latitude:	39.8114Degrees N
Longitude:	120.4978DegreesW

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	Grizzly Lake CSD is a municipal service provider. This project will support regulatory compliance with current and future state and federal water quality standards. Project will allow system operator to improve water quality.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in 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)
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	Project would improve overall system-wide energy efficiency by reducing leaks/water losses and therefore, reduce energy use by pumping and treating less water to meet needs of this rural DAC	Project will save approximately 4 Million gallons of water annually
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ Yes ■ N/A		
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	Project serves a community that is classified as Severely Disadvantaged.	
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	Be repairing this tank less water will be lost which will in turn protect the groundwater resource.	Save approximately 4,200,000 gallons of water annually
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	Will help district achieve the mandatory state reductions in water usage.	Will save approximately 4.2 million gallons of water annually
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	By saving approximately 4,200,000 gallons of water efficiency of water is increased.	Repair/rehab existing infrastructure
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	■ Yes ☐ N/A	The Grizzly Lake CSD is fully prepared to work with the IRWM and the County to	

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)
actual administration and implementation of grant funding.		administer any 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 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	This project will benefit residents of the Delleker area, which is classified as a Severely Disadvantaged community.
c. Environmental Justice[2]	☐ N/A	A large majority of water users that live in this DAC are racial minorities and the Grizzly Lake CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	☐ N/A	Project will allow action to conserve water and meet state mandated water reductions.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Fixing the leak in this tank will result in approximately 4.2 million gallons of water saved each year.
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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Repair and improve infrastructure
System reoperation	☐ Yes ■ No	More efficient water use to reduce demand on groundwater.
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	
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Maintain and upgrade infrastructure facilities
Groundwater remediation/aquifer remediation	☐ Yes ■ No	
Matching water quality to water use	■ Yes ☐ No	Allow system operation to improve water quality
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	
People and Water		
Economic incentives	■ Yes ☐ No	Will reduce wear and tear on well pump
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**	1,000			1,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	22,000			22,000
d.	**Construction/Implementation**	165,000			165,000
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**	2,000			2,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	10,000			10,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	200,000			200,000

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).**	Operation and maintenance costs will be absorbed by our existing employees using O&M funds.		
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)**	District will continue to lose over 4 million gallons of water due to leaks in tank. Will have difficulty meeting state mandated water use reductions.		

*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	Project has been evaluated by staff. Will need Engineer/ expert evaluation.	Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ■ No ☐ N/A	Create final design & engineering for project.	2 months after funding received	4 months after funding received
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Anticipate a CEQA negative declaration. Approve/file	4 months after funding received	7 months after funding received
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Project engineer will prepare & submit necessary permits	7 months after funding received	8.5 months after funding received
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Request for proposal thru notice to proceed	8.5 months after funding received	9 months after funding received
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Complete repair of tank and 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 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.).	Grizzly Lake CSD Capital Improvement Plan
b. List technical reports and studies supporting the feasibility of this project.	Anticipate an Engineer's Report
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Retrofitting the deteriorating 300,000-gallon water tank will ensure OSHA compliance and that NFPA and AWWA codes are met. The project's improved efficiency will reduce groundwater use by approximately 4,200,000 gallons annually and provide safe drinking water to 400 households. It will also provide a water supply for emergency fire protection.
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. Humbug 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-12: Delleker Water Tank Rehab

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. This water tank leaks. It also needs to be brought up to OSHA, AWWA, NFPA, and EPA codes and standards.

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 tank provides approximately 400 households in this severely disadvantaged community with essential domestic water supply and water for emergency fire protection. The tank requires repairs to bring it up to meet OSHA standards.

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.)

The 300,000-gallon water tank will be repaired and we will be able to continue to serve the community of Delleker. Estimated savings of water is 4,200,000 gallons annually. The project will repair an existing aging water supply tank. Will help meet fire flow requirements for the local area. It will increase system flexibility and resiliency to adapt to climate variability.

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

MS-12: Delleker Water Tank Rehab

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 $MTCO_2e$
			0
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**0**

[X] 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 $MTCO_2e$
5	100	**1**

[X] 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 $MTCO_2e$
4	30	100	**4**

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

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

MS-12: Delleker Water Tank Rehab

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	5 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Environmental Health
Name of Primary Contact	Pat Sanders, REHS III
Name of Secondary Contact	Gerald Sipe, Director Environmental Health
Mailing Address	270 County Hospital Rd. Ste. 127, Quincy, CA 95971
E-mail	patsanders@countyofplumas.com
Phone	(530) 283-6355
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-13: Groundwater Monitoring
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** X **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	This project will compile and input existing groundwater monitoring data into GIS layer(s) that will be publicly available. The goal is to compile and summarize existing data in a format that can be used to identify existing and potential water quality or quantity issues throughout Plumas County. This project will also help comply with the newly implemented and state mandated evaluation of water quality impacts of on-site sewage disposal systems under AB 885. The water quality data will be obtained from approximately 100 small public drinking water systems throughout Plumas County. Water purveyors perform routine water quality sampling and analysis as required under existing regulation. Depending on the system, data collected may include bacterial

	analyses (primarily coliform and fecal coliform bacteria), chemicals (such as volatile organics like benzene and toluene), minerals (such as arsenic, iron and manganese), and nutrients (like phosphates and nitrates). Additional data, including radiological analyses, could be included in the project subject to available funding. Water quantity data would be accessed through water well completion reports (water well logs), and pump test data where available. The above data are currently compared to an established standard by Plumas County Environmental Health, however, no trend analysis or spatial representation of these data is available. This project's GIS layer would make available data, metadata and trends in the data over time available to stakeholders and the general public. The project would be useful for addressing constituents of concern to maintain compliance with drinking water standards. Used in conjunction with other GIS layers, more informed decisions could be made regarding water quality protection, suitable water well location, septic system function, and land use planning.
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 would encompass all of Plumas County and existing drinking water system data.
Latitude:	N/A
Longitude:	N/A

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 X N/A		
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes X N/A		
Build communication and	X Yes	This project would produce 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)
collaboration among water resources stakeholders in the Region.	☐ N/A	useable dataset that would be beneficial to water quality stakeholders and the public to identify existing or potential water quality and quantity issues.	
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 X N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	X Yes ☐ N/A	The project would identify existing and potential water quality and quantity issues. With usable data available, a municipal service provider could identify any trends within their region and create strategies or partnerships to improve water quality and quantity.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes X N/A		
Address economic challenges of municipal service providers to serve customers.	☐ Yes X N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ Yes X N/A	The project will protect water quality through data collection, analysis, and information sharing, including a publicly available dataset.	
Address water resources and wastewater needs of DACs and Native Americans.	X Yes ☐ N/A	This project will address existing and potential impacts to water resources for all County residents including DACs utilizing water delivery and onsite wastewater systems.	

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)
Coordinate management of recharge areas and protect groundwater resources.	X Yes ☐ N/A	The project will result in a tool that could help coordinate management of recharge areas and protect groundwater resources.	
Improve coordination of land use and water resources planning.	X Yes ☐ N/A	The data produced from this project would be extremely beneficial to multiple agencies responsible for evaluating future development projects with regards to land use and water resources.	
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes X N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	Yes X N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	X Yes ☐ N/A	The project would allow better decisions regarding future water supply and infrastructure development.	
Enhance public awareness and understanding of water management issues and needs.	X Yes ☐ N/A	This project will produce publicly available data, in a usable format, that would enhance public awareness and understanding of water management issues and needs.	
Address economic challenges of agricultural producers.	☐ Yes X N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	X Yes ☐N/A	The majority of the proposed work is to tabulate existing data through use of an outside consultant.	

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

N/A

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	The goal of this project is to identify any existing or potential water quality concerns through analysis of existing data. This information will be beneficial for all residents of Plumas County, many of whom reside in Tribal communities.
b. Disadvantaged Communities[1]	☐ N/A	The goal of this project is to identify any existing or potential water quality concerns through analysis of existing data. This information will be beneficial for all residents of Plumas County, many of whom reside in DACs.
c. Environmental Justice[2]	☐ N/A	The goal of this project is to identify any existing or potential water quality concerns through analysis of existing data. This information will be beneficial for all residents of Plumas County.
d. Drought Preparedness	☐ N/A	The water quantity information gathered through well completion reports and pump testing could identify water shortage areas and dry wells trends thus helping improve drought resiliency.
e. Assist the region in adapting to effects of climate change[3]	X N/A	
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	X N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	X 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	X Yes ☐ N/A	g. Drinking water treatment and distribution	X Yes ☐ N/A
b. Stormwater capture, storage, clean-up, treatment, management	☐ Yes X N/A	h. Watershed protection and management	X Yes ☐ N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	☐ Yes X N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	☐ Yes X N/A
d. Non-point source pollution reduction, management and monitoring	X Yes ☐ N/A	j. Planning and implementation of multipurpose flood management programs	☐ Yes X N/A
e. Groundwater recharge and management projects	X Yes ☐ N/A	k. Ecosystem and fisheries restoration and protection	☐ Yes X N/A
f. Water banking, exchange, reclamation, and improvement of water quality	X 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	N/A
Urban water use efficiency	X Yes ☐ No	Project information may help drive urban water use efficiency planning and strategy development.
Improve Flood Management		
Flood management	☐ Yes X No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes X No	
System reoperation	☐ Yes X No	
Water transfers	☐ Yes X No	
Increase Water Supply		
Conjunctive management	☐ Yes X No	
Precipitation Enhancement	☐ Yes X No	
Municipal recycled water	☐ Yes X No	
Surface storage – regional/local	☐ Yes X No	
Improve Water Quality		
Drinking water treatment and	☐ Yes X No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
distribution		
Groundwater remediation/aquifer remediation	☐ Yes X No	
Matching water quality to water use	Yes X No	
Pollution prevention	X Yes ☐ No	The project will help monitor the impacts that on-site sewage disposal systems have on groundwater quality.
Salt and salinity management	☐ Yes X No	
Urban storm water runoff management	☐ Yes X No	
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes X No	
Ecosystem restoration	☐ Yes X No	
Forest management	☐ Yes X No	
Land use planning and management	X Yes ☐ No	The information and usable format that this project will create will be beneficial in evaluating areas for potential land development. For example if data is available that indicates that the proposed development area is already experiencing impacts to groundwater quality from existing on-site sewage disposal systems the appropriate mitigations can be employed.
Recharge area protection	X Yes ☐ No	The information and usable format that this project will be beneficial in evaluating areas vulnerable to contamination. This will help decision makers protect recharge areas of vulnerable groundwater areas.
Sediment management	☐ Yes X No	
Watershed management	X Yes ☐ No	The information produced by this project will inform decision makers and the public, and help drive improving watershed management.
People and Water		
Economic incentives	☐ Yes X No	
Outreach and engagement	X Yes ☐ No	The dataset will be publicly available
Water and culture	Yes X No	
Water-dependent recreation	☐ Yes X No	
Wastewater/NPDES	X Yes ☐ No	The project will identify any impacts to groundwater resources caused by on-site sewage disposal systems.

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**	$4,000			$4,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**				
d.	**Construction/Implementation**	$36,000			$36,000
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**				
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**				
i.	**Grand Total (Sum rows (a) through (h) for each column)**				

j.	**Can the Project be phased?** X Yes ☐ No If **yes**, provide cost breakdown by phases			
		Project Cost	**O&M Cost**	**Description of Phase**
	Phase 1	$30,000		Water Quality tabulation and mapping
	Phase 2	$10,000		Water Quantity tabulation and mapping
	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).**	Funding for operation and maintenance of the GIS tool will be included in the budget of Plumas County Environmental Health
l.	**Has a Cost/Benefit analysis been completed?**	☐ Yes X No
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	This monitoring program will help satisfy monitoring required under the statewide onsite wastewater regulations AB 885. Without funding, the county's ability to implement the

		onsite wastewater program could be in jeopardy, or other funds would be required to satisfy the Regional Water Quality Control Board and their requirements for monitoring onsite wastewater treatment systems.

*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			
b. Final Design	X	☐ Yes **X** No ☐ N/A	1. Develop an RFP and a scope of work, 2. Solicit bids 3. Select consultant/ contractor.	Based on available funding	Within 1 year of awarding contract
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☐ No X N/A			
d. Permitting	☐	☐ Yes ☐ No X N/A			
e. Construction Contracting	☐	☐ Yes ☐ No X N/A			
f. Construction Implementation	☐	☐ Yes ☐ No X N/A			
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.).	SWR – Onsite Wastewater Treatment System Policy (AB 885) http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf
b. List technical reports and studies supporting the feasibility of this project.	N/A
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	This project will gather, tabulate and input existing groundwater monitoring data into GIS layer(s) that will be publicly available. The goal is to compile and summarize existing data in a format that can be used to identify existing and potential water quality or quantity issues throughout Plumas County.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	☐ Yes X No ☐ N/A If yes, please describe.
e. Are you an Urban Water Supplier[1]?	☐ Yes X No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes X No ☐ N/A
g. Is the project related to groundwater?	X Yes ☐ No ☐ N/A If yes, please indicate which groundwater basin. This project will benefit all groundwater basins in Plumas County.

[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.

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-15: Chandler Road Bridge Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Significant bank erosion has occurred upstream and downstream from the Chandler Road bridge on Spanish Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Upstream and downstream from the Chandler Road bridge on Spanish Creek

Latitude:	39 degrees 58’ N
Longitude:	120 degrees 54’ W

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	Restore hydrologic function by reducing stream-bank erosion and turbidity in Spanish Creek.	Reduces significant erosion and turbidity.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		

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)
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Restore clarity in Spanish Creek by reducing erosion and turbidity. Reducing erosion and turbidity in Spanish Creek also translates into reduced turbidity in the Middle Fork of the Feather River.	Reduces significant erosion and turbidity in Spanish Creek and the Middle Fork of the Feather River.
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We have the staff capacity to administer and 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	
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced erosion and turbidity in the creek and tributaries.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion in creeks results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced sediment in creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$25,000			$25,000
d.	**Construction/Implementation**	$680,000			$680,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$10,000			$10,000
f.	**Construction Administration**	$100,000			$100,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$62,000			$62,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$897,000			$897,000

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).**	Funding for O&M of the project will come from the Plumas County Department of Public Works budget.
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 bank erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Acceptable sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-15: Chandler Road Bridge Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-15: Chandler Road Bridge Erosion

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-15: Chandler Road Bridge Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	13 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-16: Humbug Valley Road Bridge Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Seasonal flooding of Road 308 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Humbug Road 308 at mile marker 15.1
Latitude:	40 degrees 12’ N
Longitude:	121 degrees 16’ W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Reduced pollution entering the surrounding lands by eliminating the roadway flooding and reduce turbidity from drainage ditches leading to streams.	Reduces turbidity from drainage ditch leading to streams.

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure staff capacity exists to administer and 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	
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced turbidity from drainage ditch leading to streams.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion of roadway and ditches results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ☒ No	
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	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Ecosystem restoration	☐ Yes ☒ No	
Forest management	☐ Yes ☒ No	
Land use planning and management	☐ Yes ☒ No	
Recharge area protection	☐ Yes ☒ No	
Sediment management	☒ Yes ☐ No	Reduced sediment in ditches, creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$27,000			$27,000
d.	**Construction/Implementation**	$290,000			$290,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$12,000			$12,000
f.	**Construction Administration**	$42,000			$42,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$17,000			$17,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$408,000			$408,000

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).**		Funding for O&M of this project will come from the Plumas County Department of Public Works budget.	
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 roadway erosion and water turbidity	

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Acceptable sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-16 Humbug Valley Road Bridge Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

New culvert and raising the roadway will eliminate flooding of roadway and improve flood control.

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

The project when completed will reduce the erosion and sedimentation in roadside ditch that flows to creeks.

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

MS-16: Humbug Valley Road Bridge Erosion

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 $MTCO_2e$
Scrapers	1	1	1
Tractors/Loaders/Backhoes	1	1	0
Dumpers/Tenders	1	1	0
Off-Highway Trucks	1	1	1
Pavers	1	1	0
Rollers	1	1	0
			0
			0
			0
			0
		Total Emissions	**3**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	30	**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 $MTCO_2e$
10	1	60	**0**

[ ] 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-16: Humbug Valley Road Bridge Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	4 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-17: Road 311 Culvert Improvement
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Seasonal flooding of Road 311 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Old Red Bluff Road 311 at mile marker 3
Latitude:	40 degrees 21’ N
Longitude:	121 degrees 19’ W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Reduced pollution entering the surrounding lands by eliminating the roadway flooding and reduce turbidity from drainage ditches leading to streams.	Reduces turbidity from drainage ditch leading to streams.

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure staff capacity exists to administer and 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	
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced turbidity from drainage ditch leading to streams.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion of roadway and ditches results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced sediment in ditches, creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$16,000			$16,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$20,000			$20,000
d.	**Construction/Implementation**	$170,000			$170,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$10,000			$10,000
f.	**Construction Administration**	$25,000			$25,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$10,000			$10,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$251,000			$251,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 roadway erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-17: Road 311 Culvert Improvement

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

New culvert and raising the roadway will eliminate flooding of roadway and improve flood control.

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

The project when completed will reduce the erosion and sedimentation in roadside ditch that flows to creeks.

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

MS-17: Road 311 Culvert Improvement

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 $MTCO_2e$
Scrapers	1	1	1
Tractors/Loaders/Backhoes	1	1	0
Dumpers/Tenders	1	1	0
Off-Highway Trucks	1	1	1
Pavers	1	1	0
Rollers	1	1	0
			0
			0
			0
			0
		Total Emissions	**3**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	30	**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 $MTCO_2e$
10	1	60	**0**

[ ] 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-17: Road 311 Culvert Improvement

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:

GHG Emissions Summary

Construction and development will generate approximately:	4 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-18: Road 318 Culvert Improvements
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Seasonal flooding of Road 318 is in need of a new culvert to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Chester Juniper Lake Road 318 at mile marker 8.2
Latitude:	40 degrees 19’ N
Longitude:	121 degrees 14’ W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Reduced pollution entering the surrounding lands by eliminating the roadway flooding and reduce turbidity from drainage ditches leading to streams.	Reduces turbidity from drainage ditch leading to streams.

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a disadvantaged community tract and would benefit the community by preventing adjacent lands being polluted by the flooded roadway.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced turbidity from drainage ditch leading to streams.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion of roadway and ditches results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
Water transfers	☐ Yes ☒ No	
Increase Water Supply		
Conjunctive management	☐ Yes ☒ No	
Precipitation Enhancement	☐ Yes ☒ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Municipal recycled water	☐ Yes ☒ No	
Surface storage – regional/local	☐ Yes ☒ No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ☒ No	
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	Reduced sediment in ditches, creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$16,000			$16,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$20,000			$20,000
d.	**Construction/Implementation**	$170,000			$170,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$10,000			$10,000
f.	**Construction Administration**	$25,000			$25,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$10,000			$10,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$251,000			$251,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 roadway erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-18: Road 318 Culvert Improvements

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

New culvert and raising the roadway will eliminate flooding of roadway and improve flood control.

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

The project when completed will reduce the erosion and sedimentation in roadside ditch that flows to creeks.

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

MS-18: Road 318 Culvert Improvements

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 $MTCO_2e$
Scrapers	1	1	1
Tractors/Loaders/Backhoes	1	1	0
Dumpers/Tenders	1	1	0
Off-Highway Trucks	1	1	1
Pavers	1	1	0
Rollers	1	1	0
			0
			0
			0
			0
		Total Emissions	**3**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	30	**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 $MTCO_2e$
10	1	60	**0**

[ ] 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-18: Road 318 Culvert Improvements

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:

GHG Emissions Summary

Construction and development will generate approximately:	4 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-19: North Valley Road Bridge Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Significant bank erosion has occurred upstream and downstream from the North Valley Road bridge on Indian Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	North Valley Road bridge over Lights Creek.
Latitude:	40 degrees 06’ 03” N
Longitude:	120 degrees 50’ 22” W

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	Restore hydrologic function by reducing stream bank erosion and turbidity in Indian Creek.	Reduces significant erosion and turbidity.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Restore clarity of stream by reducing erosion and turbidity. Reducing erosion and turbidity in Indian Creek also translates into reduced turbidity in the Middle Fork of the Feather River.	Reduces significant erosion in Indian Creek and turbidity in both Indian Creek and the Middle Fork of the Feather River

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a severely disadvantaged community tract and would benefit the community by enhancing water quality in Lights Creek which runs through the community.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced erosion and turbidity in the creek and tributaries.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion in creeks results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced sediment in creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$25,000			$25,000
d.	**Construction/Implementation**	$490,000			$490,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$10,000			$10,000
f.	**Construction Administration**	$75,000			$75,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$50,000			$50,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$670,000			$670,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 bank erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-19: North Valley Road Bridge Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-19: North Valley Road Bridge Erosion

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-19: North Valley Road Bridge Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	13 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-20: Mill Creek Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Eroded slopes on Mill Creek upstream from Highway 70 is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from excessive erosion. The erosion is caused by the water flow under the highway 70 bridge being inadequate and water backs up causing erosion. Inadequate flow under highway 70 will be eased by addition of two new pipes adjacent the existing culvert.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Mill Creek upstream from Highway 70.

Latitude:	39 degrees 56' N
Longitude:	120 degrees 54' W

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	Restore hydrologic function by reducing stream bank erosion and turbidity in Mill Creek.	Reduces significant erosion and turbidity.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		

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)
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Restore clarity Mill Creek by reducing stream bank erosion and turbidity. Reducing erosion and turbidity in Mill Creek also translates into reduced turbidity in the Middle Fork of the Feather River.	Reduces significant erosion in Mill Creek and and turbidity in both Mill Creek and Middle Fork of the Feather River.
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a disadvantaged community and would benefit the community by enhancing water quality in Mill Creek which runs through the community.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced erosion and turbidity in the creek and tributaries.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion in creeks results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
Improve Water Quality		
Drinking water treatment and	☐ Yes ☒ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
distribution		
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	Increased capacity of water flow under highway 70 will reduce flooding of adjacent lands.
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	Reduced sediment in creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$50,000			$50,000
d.	**Construction/Implementation**	$600,000			$600 ,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$15,000			$15,000
f.	**Construction Administration**	$90,000			$90,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$60,000			$60,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$835,000			$835,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 bank erosion, water turbidity, and flooding.

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-20: Mill Creek Erosion

Project applicant: County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-20: Mill Creek Erosion

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-20: Mill Creek Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	13	$MTCO_2e$
In a given year, operation of the project will result in:	0	$MTCO_2e$

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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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-21: Smith Creek erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	The buildup of gravel from erosion upstream and downstream of the bridge is causing the creek to overflow over the Johnsville-Graeagle Road bridge and the gravel buildup needs to be removed.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Upstream and downstream from Johnsville-Graeagle Road bridge on Smith Creek.
Latitude:	39 degrees 46’ N
Longitude:	120 degrees 37’ W

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	Restore hydrologic function by removing the gravel buildup in Smith Creek.	Increase stream flow under bridge.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Reduced pollution entering the creek and tributaries by eliminating the overtopping of the bridge. Improve freshwater habitat.	Reduces pollution from Johnsonville-Graeagle bridge to Smith creek.

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a disadvantaged community and would benefit the community by enhancing water quality in Smith Creek which runs through the community.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced pollution entering the creek and tributaries by eliminating the overtopping of the bridge.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Restore hydrologic function by removing the gravel buildup in the stream.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
Improve Water Quality		

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Drinking water treatment and distribution	☐ Yes ☒ No	
Groundwater remediation/aquifer remediation	☐ Yes ☒ No	
Matching water quality to water use	☐ Yes ☒ No	
Pollution prevention	☒ Yes ☐ No	Reduced pollution entering the creek and tributaries by eliminating the overtopping of the bridge
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	Remove gravel buildup in creek
Watershed management	☐ Yes ☒ No	
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**	$8,000			$8,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$8,000			$8,000
d.	**Construction/Implementation**	$65,000			$65,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$8,000			$8,000
f.	**Construction Administration**	$8,000			$8,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$8,000			$8,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$105,000			$105,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 bridge overtopping and pollution entering the creek

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Sediment becomes trapped in gravel beds and may be flushed into the creek during flood events. For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment and gravel in Smith Creek, which also improves cold freshwater habitat and contributes to compliance with the Basin Plan and established TMDLs.
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.

[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-21: Smith Creek Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-21: Smith Creek Erosion

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 $MTCO_2e$
			0
Tractors/Loaders/Backhoes	2	4	2
Dumpers/Tenders	1	4	0
Off-Highway Trucks	1	4	5
			0
			0
			0
			0
			0
			0
		Total Emissions	**7**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	10	**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 $MTCO_2e$
5	5	60	**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-21: Smith Creek Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	8 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-22:Wapaunsie Creek Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Eroded creek bank on Wapaunsie Creek and Snake Lake Road is in need of erosion protection by means of rip rap and mechanically stabilized embankment to reduce the turbidity of water flowing to Spanish Creek from excessive erosion.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Approximately 150 yards west of Smith Lake Road on Snake Lake Road at Wapaunsie Creek.
Latitude:	39 degrees 58’ N
Longitude:	121 degrees 01’ W

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	Restore hydrologic function by reducing stream bank erosion and turbidity in Wapaunsie Creek.	Reduces significant erosion and turbidity.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Restore clarity in Wapaunsie Creek by reducing stream bank erosion and turbidity. Reducing erosion and turbidity in Wapaunsie Creek also	Reduces significant erosion in Wapaunsie Creek and turbidity in Wapaunsie Creek,

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)
		translates into reduced turbidity in Spanish Creek and the Middle Fork of the Feather River.	Spanish Creek and the Middle Fork of the Feather River.
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a disadvantaged community and would benefit the community by enhancing water quality in Wapaunsie Creek, which runs through the community.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced erosion and turbidity in the creek and tributaries.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion in creeks results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced stream bank erosion and reduced sedimentation and turbidity improve cold freshwater habitat and spawning grounds.
Forest management	☐ Yes ☒ No	
Land use planning and management	☐ Yes ☒ No	
Recharge area protection	☐ Yes ☒ No	
Sediment management	☒ Yes ☐ No	Reduced sediment in creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$30,000			$30,000
d.	**Construction/Implementation**	$300,000			$300,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$12,000			$12,000
f.	**Construction Administration**	$45,000			$45,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$20,000			$20,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$427,000			$427,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 bank erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-22: Wapaunsie Creek Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-22: Wapaunsie Creek Erosion

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-22: Wapaunsie Creek Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	13	$MTCO_2e$
In a given year, operation of the project will result in:	0	$MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-23: Stampfli Lane Bridge Erosion
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Significant bank erosion has occurred upstream and downstream from the Stampfli Lane bridge on Indian Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Upstream and downstream from the Stampfli Lane bridge on Indian Creek
Latitude:	40 degrees 06’ 29” N
Longitude:	120 degrees 51’ 40” W

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	Restore hydrologic function by reducing stream bank erosion and turbidity in Indian Creek.	Reduces significant erosion and turbidity.
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Restore clarity Indian Creek by reducing stream bank erosion and turbidity. Reducing erosion and turbidity in Indian Creek also translates into reduced turbidity in the Middle Fork of	Reduces significant erosion in Indian Creek and turbidity in both Indian Creek and Middle Fork of the Feather

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)
		the Feather River.	River.
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a severely disadvantaged community tract and would benefit the community by enhancing water quality in Indian Creek which runs through the community.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced erosion and turbidity in the creek and tributaries.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion in creeks results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced sediment in creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$25,000			$25,000
d.	**Construction/Implementation**	$300,000			$300,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$10,000			$10,000
f.	**Construction Administration**	$45,000			$45,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$32,000			$32,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$432,000			$432,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 bank erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-23: Stampfli Lane Bridge Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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

The project when completed will reduce the erosion and sedimentation in creek.

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

MS-23: Stampfli Lane Bridge Erosion

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-23: Stampfli Lane Bridge Erosion

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:

GHG Emissions Summary

Construction and development will generate approximately:	13 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-24:Walker Ranch CSD Infrastructure Improvements
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	The aging water supply system has leaks resulting in significant water losses. The system needs an exfiltration water study to determine definitively the extent of water loss.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Walker Ranch Community Services District is located on the Lake Almanor Peninsula near State Route 36 and County Road A13.
Latitude:	40 degrees 17’ North
Longitude:	120 degrees 8’ 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.

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ 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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	Reduced water loss through the distribution system making the system more water efficient and conserving water by eliminating the loss.	10 miles of water mains and laterals tested for leaks.
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	Improve efficiency by reduced water loss making the system more water efficient and conserving water by eliminating the loss.	10 miles of water mains and laterals tested for leaks.
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	Plumas County Department of Public Works and Walker Ranch CSD are committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	The project is located in a disadvantaged community and would benefit the community by reducing water loss in the water system at Walker Ranch CSD.
c. Environmental Justice[2]	☐ N/A	
d. Drought Preparedness	☐ N/A	Reduced water loss in the system equates to more water available during a drought.
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Water efficiency by eliminating the loss
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	Study will result in repairs and improvements to infrastructure
System reoperation	☒ Yes ☐ No	More efficient water use to reduce demand on groundwater.
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	
Groundwater remediation/aquifer remediation	☐ Yes ☒ No	
Matching water quality to water use	☐ Yes ☒ No	
Pollution prevention	☒ Yes ☐ No	Repairing leaks will prevent possible contamination
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	
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**	$10,000			$10,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$10,000			$10,000
d.	**Construction/Implementation**	$63,000			$63,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$3,000			$3,000
f.	**Construction Administration**	$10,000			$10,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$4,000			$4,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$100,000			$100,000

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).**	The evaluation will result in repairs and improvements to infrastructure that will be maintained with ratepayer's fees.
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 through the distribution system.

*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		Upon execution of grant agreement	3 months after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	6 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	9 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		10 months after funding secured	12 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		13 months after funding secured	14 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		15 months after funding secured	18 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.).	NA
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Water loss is documented by the difference between well meter readings and end user meter readings. The analysis will identify the locations of the leaks so they can be repaired.
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. Lake Almanor basin

[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-24 Walker Ranch CSD Infrastructure Improvements

Project applicant: Plumas County Department of Public Works- Engineering

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

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

Decreasing the amount of water loss in the water system requires less water to be pumped from the ground.

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.)

Project has beneficial use of saving domestic water by eliminating the loss in the distribution system.

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

MS-24: Walker Ranch CSD Infrastructure Improvements

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	10	3
Other Construction Equipment	2	10	2
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**4**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
4	60	**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 $MTCO_2e$
3	10	60	**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-24: Walker Ranch CSD Infrastructure Improvements

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:

GHG Emissions Summary

Construction and development will generate approximately:	5 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas County Department of Public Works – Engineering
Name of Primary Contact	Robert A. Perreault , Jr., Director of Public works
Name of Secondary Contact	Robert Thorman, Engineering Technician II
Mailing Address	1834 East Main Street, Quincy, CA 95971
E-mail	bobperreault@countyofplumas.com
Phone	(530) 283-6222
Other Cooperating Agencies / Organizations / Stakeholders	NA
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-25:Humbug Valley Road 307 Culvert Improvements
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Seasonal flooding of Road 307 at three locations are in need of new culverts to improve water flow, raising the road to eliminate flooding, and armoring the roadside ditches to prevent polluting adjacent lands and reduce ditch turbidity flowing to streams.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Humbug Road 307 at mile marker 3.9, 5.1, and 6.8-6.9
Latitude:	40 degrees 8’ N
Longitude:	121 degrees 15’ W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
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		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Reduced pollution entering the surrounding lands by eliminating the roadway flooding and reduce turbidity from drainage ditches leading to streams.	Reduces turbidity from drainage ditch leading to streams.

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)
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and 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	
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☒ N/A	
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	Benefit of reduced turbidity from drainage ditch leading to streams.

[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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion of roadway and ditches results in less sediment in rivers and better flood management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
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	Reduced sediment in ditches, creeks & rivers
Watershed management	☐ Yes ☒ No	
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**	$20,000			$20,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$40,000			$40,000
d.	**Construction/Implementation**	$540,000			$540,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$15,000			$15,000
f.	**Construction Administration**	$81,000			$81,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$32,000			$32,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$728,000			$728,000

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).**	Funding for O&M of this project will come from the Plumas County Department of Public Works budget.
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 roadway erosion and water turbidity

*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		Upon execution of grant agreement	1 month after funding agreement
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		4 months after funding secured	7 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	12 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.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	NA
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the benefit of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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.

[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-25: Humbug Valley Road 307 Culvert Improvements

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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

New culvert and raising the roadway will eliminate flooding of roadway and improve flood control.

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

The project when completed will reduce the erosion and sedimentation in roadside ditch that flows to creeks.

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

MS-25 Humbug Valley Road 307 Culvert Improvements

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 $MTCO_2e$
Scrapers	1	1	1
Tractors/Loaders/Backhoes	1	1	0
Dumpers/Tenders	1	3	0
Off-Highway Trucks	1	3	4
Pavers	1	2	1
Rollers	1	2	0
			0
			0
			0
			0
		Total Emissions	**6**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	30	**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 $MTCO_2e$
10	2	60	**0**

[ ] 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-25 Humbug Valley Road 307 Culvert Improvements

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:

GHG Emissions Summary

Construction and development will generate approximately:	7 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. The Project is dependent on funding.

II. GENERAL PROJECT INFORMATION

Project Title	MS-26: Municipal Well #3
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)	The Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" identifies the need to increase the water supply volume for future use. The new 500 gallon per minute well would also have an arsenic removal system.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	New municipal well will be located within the Plumas Eureka CSD service area.
Latitude:	39° 47' 31.7322"
Longitude:	120° 38' 59.7588"

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.	N/A		
Reduce potential for catastrophic wildland fires in the Region.	Yes	New well will increase available water volume in a wild fire event.	Volume increase could be up to 500 gallons per minute.
Build communication and collaboration among water resources stakeholders in the Region.	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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes	PECSD is a municipal service provider. This project will improve water supply and drinking water quality (arsenic removal) for the local community.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	Yes	This project is dependent on grant funding to increase reliability of present and future water supplies and assuring the delivered water meets all federal and State water standards.	
Protect, restore, and enhance the quality of surface and groundwater resources for all	Yes	Through careful hydrologic studies and planning the most suitable water source would be	

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)
beneficial uses, consistent with the RWQC Basin Plan.		determined. The new water source would provide direct benefit to the community through enhanced quality and sustainability.	
Address water resources and wastewater needs of DACs and Native Americans.	N/A		
Coordinate management of recharge areas and protect groundwater resources.	N/A		
Improve coordination of land use and water resources planning.	N/A		
Maximize agricultural, environmental and municipal water use efficiency.	N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	Yes	Increase reliability of present and future water supplies and the new well will be equipped with an arsenic removal system to meet State and Federal drinking water standards.	Insures the water quantity and quality for future buildout of the Plumas Eureka CSD service area.
Enhance public awareness and understanding of water management issues and needs.	N/A		
Address economic challenges of agricultural producers.	N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	Yes	PECSD is prepared to work with the IRWM and the County to administer any 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 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	
c. Environmental Justice[2]		PECSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	N/A	
e. Assist the region in adapting to effects of climate change[3]		The new well will increase available water volume for emergency fire protection/suppression.
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	g. Drinking water treatment and distribution	Yes
b. Stormwater capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	N/A
d. Non-point source pollution reduction, management and monitoring	N/A	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	N/A	k. Ecosystem and fisheries restoration and protection	N/A
f. Water banking, exchange, reclamation, and improvement of water quality	Yes		

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	No	
Urban water use efficiency	No	
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	Improve conveyance of water from locally developed sources to the end users located within the same watershed.
System reoperation	☒ Yes ☐ No	Improvement of operations and management procedures of water facilities to meet needs more efficiently and reliably.
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Surface storage – regional/local	No	
Improve Water Quality		
Drinking water treatment and distribution	Yes	Increases reliability of present and future water supplies and the new well will be equipped with an arsenic removal system to meet State and Federal drinking water standards.
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	No	
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	No	
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	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?: No
Funding Match Waiver request?: 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**	$356,100	$356,100		$712,200
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$108,500	$108,500		$217,000
d.	**Construction/Implementation**	$585,400	$585,400		$1,170,800
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**				
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**				
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$1,050,000	$1,050,000		$2,100,000

j.	**Can the Project be phased? 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).**	Service rates would be increased to meet O&M costs when needed.
l.	**Has a Cost/Benefit analysis been completed?**	**No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Possible building moratorium within the Plumas Eureka CSD service area.

*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	X	Yes	Well necessity identified via 2015 Preliminary Engineering Report Well location needs to be assessed.	2015	4 months after funding agreement
b. Final Design	☐	No	Engineering and design	4 months after funding secured	7 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	No		7 months after funding secured	10 months after funding secured
d. Permitting	☐	No		10 months after funding secured	12 months after funding secured
e. Construction Contracting	☐	No		12 months after funding secured	13 months after funding secured
f. Construction Implementation	☐	No	Drill well and install necessary pumping and filtration equipment	13 months after funding secured	15 months after funding secured

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.).	Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" completed by Stantec Engineering.
b. List technical reports and studies supporting the feasibility of this project.	"Hydrologic Controls of Arsenic Occurrence in Plumas Eureka CSD Wells" completed by Plumas Geo-Hydrology
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Well flow data analysis from 2005 – 2015 demonstrates there will not be sufficient drinking for the Plumas Eureka CSD service area at full buildout.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	No
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	Yes Mohawk Valley Groundwater basin

[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-26: Municipal Well No.3

Project applicant: Plumas Eureka Community 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

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

Project will provide the necessary amount of groundwater usage for drinking and landscape irrigation purposes as the Plumas Eureka community reaches build-out.

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.)

Project will include the operation of an arsenic removal plant. Project will assure the volume of drinking water and irrigation water at full build-out of the Plumas Eureka community.

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

MS-26: Municipal Well #3

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 $MTCO_2e$
Surfacing Equipment	1	5	4
Paving Equipment	2	1	1
Bore/Drill Rigs	1	7	7
Cement and Mortar Mixers	1	1	0
Tractors/Loaders/Backhoes	1	4	1
			0
			0
			0
			0
			0
		Total Emissions	**12**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
6	170	**2**

[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 $MTCO_2e$
3	10	750	**8**

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

Completed project will require electricity to operate.

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

MS-26: Municipal Well #3

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
215,000	kWh (Electricity)	**42**
	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:

GHG Emissions Summary

Construction and development will generate approximately:	22 $MTCO_2e$
In a given year, operation of the project will result in:	42 $MTCO_2e$

featherriver.org

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Project completion would be dependent on funding alternatives.

II. GENERAL PROJECT INFORMATION

Project Title	MS-27: Treated Wastewater Reuse
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)	When completed, the Plumas Eureka CSD "Treated Wastewater Effluent Feasibility Study", performed by Bastian Engineering, identifies the possibility of utilizing treated wastewater as an irrigation supplement to the Plumas Pines Golf Course. Plumas Eureka has two wastewater treatment plants, only one that has the ability to supplement irrigation water on the front nine holes. The other wastewater treatment plant discharges its treated effluent to a community leachfield on a daily basis.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	New reclamation systems will be installed in the existing wastewater treatments within Plumas Eureka CSD.
Latitude:	39° 47' 31.7322"
Longitude:	120° 38' 59.7588"

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	Reuse of treated wastewater will reduce demand on the aquifer.	20% reduction in surface and groundwater used to irrigate the golf course
Reduce potential for catastrophic wildland fires in the Region.	Yes	Reduced use of local surface water and groundwater resources for irrigation will make that water more readily available for fire suppression.	
Build communication and collaboration among water resources stakeholders in the Region.	Yes	Reclaiming community wastewater and reusing it for irrigation on the golf course represents significant collaboration between PECSD and commercial entities in the district.	
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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes	The PECSD is a municipal service provider. This project represents a pro-active contribution to long-term regional water supply management and water quality.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	N/A		

Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	N/A		
Address water resources and wastewater needs of DACs and Native Americans.	Yes	Treated wastewater reuse will decrease the amount of surface water and groundwater currently used for irrigation purposes by as much as 20%.	Groundwater aquafers will be less stressed and surface water supplies will be increased for other areas around the State.
Coordinate management of recharge areas and protect groundwater resources.	Yes	High quality treatment and reuse of wastewater for irrigation is an important component of managing our recharge capability and protecting ground water resources.	
Improve coordination of land use and water resources planning.	Yes	Coordination of land use and water resources is critical to the success of commercial, residential and purveyor entities.	
Maximize agricultural, environmental and municipal water use efficiency.	Yes	Utilizing treated wastewater for irrigation, reduces the hydraulic loading on community leachfields, thereby extending their life expectancy.	Unknown over-all impact. Impacts would need to be evaluated for each particular community.
Effectively address climate change adaptation and/or mitigation in water resources management.	Yes	This project reduces the use of “fresh” surface and groundwater for irrigation and could provide an optional irrigation source for homeowners and commercial landscaping.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	Yes	Installing the new equipment necessary for treated wastewater reuse could extend the life of existing disposal sites and prolong the need to replace existing infrastructure.	Groundwater aquafers will be less stressed and surface water supplies will be increased for other users.
Enhance public awareness and understanding of water management issues and needs.	Yes	Increased public awareness of potential uses for treated wastewater reuse.	
Address economic challenges of agricultural producers.	Yes	Treated wastewater could offset the need for agriculture to use existing water sources for irrigation.	

Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	Yes	PECSD is prepared to work with the IRWM and the County to administer any 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 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		Installation of wastewater reuse equipment could become a source of income for the agency.
b. Disadvantaged Communities[1]		Installation of wastewater reuse equipment could become a source of income for the agency.
c. Environmental Justice[2]		PECSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. Installing the new equipment necessary for treated wastewater reuse could extend the life of existing disposal sites and prolong the need to replace existing infrastructure.
d. Drought Preparedness		Treated wastewater reuse would greatly reduce the amount of surface water and groundwater used for irrigation.
e. Assist the region in adapting to effects of climate change[3]	N/A	
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	g. Drinking water treatment and distribution	N/A
b. Stormwater capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	N/A
d. Non-point source pollution reduction, management and monitoring	N/A	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	Yes	k. Ecosystem and fisheries restoration and protection	N/A
f. Water banking, exchange, reclamation, and improvement of water quality	Yes		

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	Treated wastewater could offset the need for agriculture to use existing water sources for irrigation.
Urban water use efficiency	Yes	Implementing Best Management Practices for irrigation use. Provide optional irrigation source for homeowners and commercial landscaping.
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	No	
System reoperation	No	
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	Yes	Increases public awareness of potential uses for treated wastewater reuse
Surface storage – regional/local	No	
Improve Water Quality		
Drinking water treatment and distribution	No	
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	Yes	Treated wastewater could be utilized to augment or replace existing irrigation systems currently using “fresh” water.
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Watershed management	No	
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	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?: No
Funding Match Waiver request?: 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**	75%	25%		unknown
b.	**Land Purchase/Easement**	75%	25%		unknown
c.	**Planning/Design/Engineering / Environmental**	75%	25%		unknown
d.	**Construction/Implementation**	75%	25%		unknown
e.	**Environmental Compliance/ Mitigation/Enhancement**	75%	25%		unknown
f.	**Construction Administration**	75%	25%		unknown
g.	**Other Costs**	75%	25%		unknown
h.	**Construction/Implementation Contingency**	75%	25%		unknown
i.	**Grand Total (Sum rows (a) through (h) for each column)**	unknown	unknown		unknown

j.	**Can the Project be phased? 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).**		Service rates would be increased to meet O&M costs when needed. O&M costs could be offset by charging a fee for the use of treated wastewater.	
l.	**Has a Cost/Benefit analysis been completed?**		**No**	
m.	**Describe what impact there may be if the project is not funded (300 words or less)**		Depletion of aquifer and inadequate surface water supplies during times of extreme drought and over time with climate change. Shorter lifespan of existing community leachfield.	

*List all sources of funding.
Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).

IV. PROJECT IMPACTS AND BENEFITS

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	■	No	TBD	TBD	TBD
b. Final Design	☐	No	TBD	TBD	TBD
c. Environmental Documentation (CEQA / NEPA)	☐	No	TBD	TBD	TBD
d. Permitting	☐	No	TBD	TBD	TBD
e. Construction Contracting	☐	No	TBD	TBD	TBD
f. Construction Implementation	☐	No	TBD	TBD	TBD
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.).	
b. List technical reports and studies supporting the feasibility of this project.	Plumas Eureka CSD "Treated Wastewater Effluent Feasibility Study" by Bastian Engineering (pending completion)
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Research on reclamation system compatible with the district's STEP primary treatment systems has been completed. Wastewater disposal capacity analysis has been conducted.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	No
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	Yes 5-60 Humbug 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.

MS 27: Treated Wastewater Reuse

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	5	1
Other Construction Equipment	2	10	2
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**3**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
6	100	**1**

[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 $MTCO_2e$
3	10	200	**2**

[ ] 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 27: Treated Wastewater Reuse

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
100,000	kWh (Electricity)	**20**
	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:

GHG Emissions Summary

Construction and development will generate approximately:	6 $MTCO_2e$
In a given year, operation of the project will result in:	20 $MTCO_2e$

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Project completion would be dependent on funding alternatives.

II. GENERAL PROJECT INFORMATION

Project Title	MS-28: Water Meter Installation
Project Category	**Water Supply/Water Quality** **Community Water/Wastewater**
Project Description (Briefly describe the project, in 300 words or less)	Water Meter Installation The Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" recommends the installation of water meters throughout the Plumas Eureka community. Approximately 645 radio read meters would be installed and new computer software to monitor/read the system.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	New water meters will be installed to all service connections within Plumas Eureka CSD's service area.
Latitude:	39° 47' 31.7322"
Longitude:	120° 38' 59.7588"

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.	N/A		
Reduce potential for catastrophic wildland fires in the Region.	N/A		
Build communication and collaboration among water resources stakeholders in the Region.	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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	N/A		
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	N/A		
Address water resources and wastewater needs of DACs and Native Americans.	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)
Coordinate management of recharge areas and protect groundwater resources.	N/A		
Improve coordination of land use and water resources planning.	N/A		
Maximize agricultural, environmental and municipal water use efficiency.	N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	Yes	Increases water conservation, the ability to identify leaks, and make system repairs to prevent water losses in the distribution system.	Could reduce overall water losses by as much as 15%.
Enhance public awareness and understanding of water management issues and needs.	Yes	Customers would have direct feedback on the amount of water they use that would assist them in managing their own water uses.	Overall water savings up to 10% per customer.
Address economic challenges of agricultural producers.	N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	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 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	
c. Environmental Justice[2]	N/A	
d. Drought Preparedness		Accurate water usage amounts would assist CSD staff and customers in developing the criteria necessary to reduce water use.
e. Assist the region in adapting to effects of climate change[3]	N/A	
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	g. Drinking water treatment and distribution	Yes
b. Stormwater capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	N/A
d. Non-point source pollution reduction, management and monitoring	N/A	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	N/A	k. Ecosystem and fisheries restoration and protection	N/A
f. Water banking, exchange, reclamation, and improvement of water quality	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	No	
Urban water use efficiency	Yes	Establish best management practices for distribution system monitoring. Increase public awareness of water usage.
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	No	
System reoperation	Yes	Meters would assist the operational staff by identifying distribution system leaks in a more timely fashion.
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	No	
Surface storage – regional/local	No	
Improve Water Quality		

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Drinking water treatment and distribution	Yes	Improves distribution system operations.
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	No	
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	No	
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	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?: No
Funding Match Waiver request?: 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**				
b.	**Land Purchase/Easement**	0	0	0	0
c.	**Planning/Design/Engineering / Environmental**	74205	24750	0	99000
d.	**Construction/Implementation**	744000	248000		992000
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**	59250	19750	0	79000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	111750	37250	0	149000
i.	**Grand Total (Sum rows (a) through (h) for each column)**				1319000

j.	**Can the Project be phased? 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).**	Service rates would be increased to meet O&M costs when needed.
l.	**Has a Cost/Benefit analysis been completed?**	**No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	

*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	**XX**	Yes	Water meter installation identified via 2015 Preliminary Engineering Report	TBD	TBD
b. Final Design	☐	No	TBD	TBD	TBD
c. Environmental Documentation (CEQA / NEPA)	☐	No	TBD	TBD	TBD
d. Permitting	☐	No	TBD	TBD	TBD
e. Construction Contracting	☐	No	TBD	TBD	TBD
f. Construction Implementation	☐	No	TBD	TBD	TBD
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.).	Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" completed by Stantec Engineering.
b. List technical reports and studies supporting the feasibility of this project.	
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	No
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	Yes Mohawk Valley Groundwater basin

[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-28: Water Meter Installation

Project applicant: Plumas Eureka Community 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

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

Installing water meters will decrease the amount of water used by individuals. They will also help to identify areas of the distribution system that may have water loss issues.

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.)

Decreased water losses and use by individuals as a result of outreach and education and the financial effects of metering water will result in reduced demand on the water supply.

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

MS-28: Water Meter Installation

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	75	20
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**20**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
12	100	**2**

[ ] 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 $MTCO_2e$
			0

[ ] 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-28: Water Meter Installation

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:

GHG Emissions Summary

Construction and development will generate approximately:	22 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. Project completion will be dependent on funding.

II. GENERAL PROJECT INFORMATION

Project Title	MS-29: Water Storage Tank Replacement
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)	Water Storage Tank Replacement The Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" recommended the replacement of an existing 190,000-gallon storage tank due to seismic concerns and existing steel construction.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Work will be performed on an existing land parcel that is under a Special Use Permit issued by the United States Forest Service.
Latitude:	39° 47' 31.7322"
Longitude:	120° 38' 59.7588"

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.	N/A		
Reduce potential for catastrophic wildland fires in the Region.	Yes	New storage tank will increase available water volume in a wild fire event.	Volume increase will be 210,000 gallons.
Build communication and collaboration among water resources stakeholders in the Region.	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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes	PECSD is a municipal service provider. A new water tank will improve the water supply now and through buildout.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	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)
Address water resources and wastewater needs of DACs and Native Americans.	N/A		
Coordinate management of recharge areas and protect groundwater resources.	Yes	Additional water storage provides greater flexibility in managing groundwater pumping from wells.	
Improve coordination of land use and water resources planning.	N/A		
Maximize agricultural, environmental and municipal water use efficiency.	N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	Yes	Increased water storage is beneficial for use during times of water shortages due to extended drought.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	Yes	Increases water storage capacity and ability of tank to withstand a major seismic event.	Insures the water quantity for future buildout of the Plumas Eureka CSD service area.
Enhance public awareness and understanding of water management issues and needs.	N/A		
Address economic challenges of agricultural producers.	N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	Yes	PECSD is prepared to work with the IRWM and the County to administer any 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 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	
c. Environmental Justice[2]	N/A	PECSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. The new water storage will benefit all water users in the service area.
d. Drought Preparedness	YES	Additional capacity will allow groundwater wells more "rest time" which reduces hydraulic strain on surrounding aquifer.
e. Assist the region in adapting to effects of climate change[3]	N/A	
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	g. Drinking water treatment and distribution	Yes
b. Stormwater capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	N/A
d. Non-point source pollution reduction, management and monitoring	N/A	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	N/A	k. Ecosystem and fisheries restoration and protection	N/A
f. Water banking, exchange, reclamation, and improvement of water quality	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	No	
Urban water use efficiency	No	
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	Yes	System stability and efficiency improvement
System reoperation	Yes	Improvement of existing operations and water facilities to meet needs more efficiently and reliably
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	No	
Surface storage – regional/local	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	New tank increases available water storage by 210,000 gallons (47.5 % increase).
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	No	
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	No	
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	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?: No
Funding Match Waiver request?: 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**	15,000	5,000	0	20,000
b.	**Land Purchase/Easement**	0	0	0	0
c.	**Planning/Design/Engineering / Environmental**	60,750	20,250	0	81,000
d.	**Construction/Implementation**	288,750	96,250	0	385,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	15,000	5,000	0	20,000
f.	**Construction Administration**	60,750	20,250	0	81,000
g.	**Other Costs**	0	0	0	0
h.	**Construction/Implementation Contingency**	91,500	30,500	0	122,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	531,750	177,250	0	709,000

j.	**Can the Project be phased? 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).**	Service rates will be increased to meet O&M costs when needed.
l.	**Has a Cost/Benefit analysis been completed?**	**No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Loss of 190,000-gallon storage tank due to seismic activity. Community water shortages.

*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	**XX**	Yes	New Tank necessity identified via 2015 Preliminary Engineering Report	2015	1 month after funding agreement
b. Final Design	☐	No	TBD	2 months after funding secured	4 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	No	TBD	4 months after funding secured	6 months after funding secured
d. Permitting	☐	No	TBD	7 months after funding secured	8.5 months after funding secured
e. Construction Contracting	☐	No	TBD	8.5 months after funding secured	9 months after funding secured
f. Construction Implementation	☐	No	TBD	9 months after funding secured	12 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.).	Plumas Eureka CSD "Preliminary Engineering Report for the 2015 Water System Improvements" completed by Stantec Engineering.
b. List technical reports and studies supporting the feasibility of this project.	Preliminary Engineering Report
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	The current water storage tank is vulnerable to seismic activity. In the event of tank failure, there would be devastating water shortages to the local residents and businesses. In addition the current volume of storage is insufficient for build out in the area.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	No
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	No

[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-29 Water Storage Tank Replacement

Project applicant: Plumas Eureka Community 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

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

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:

- ☒ 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

MS 29: Water Storage Tank Replacement

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 $MTCO_2e$
Other Construction Equipment	1	15	1
Excavators	1	3	1
Cranes	1	10	8
Rough Terrain Forklifts	1	3	1
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	100	**2**

[ ] 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 $MTCO_2e$
			0

[ ] 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 29: Water Storage Tank Replacement

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:

GHG Emissions Summary

Construction and development will generate approximately:	13 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. The project is dependent on funding.

II. GENERAL PROJECT INFORMATION

Project Title	MS-30: Wastewater Treatment Plant #6 Upgrade
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)	Wastewater treatment plant #6 is approximately 35 years old. An engineering report needs to be done to identify the possible upgrades needed and/or the necessity for a complete plant replacement. Current treatment methods may not be sufficient to meet unrestricted reuse of treated wastewater for irrigation purposes.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Work will be performed at existing wastewater treatment plant #6, which is at the end of West Ponderosa Drive.
Latitude:	39° 47’ 31.7322”
Longitude:	120° 38’ 59.7588”

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.	N/A		
Reduce potential for catastrophic wildland fires in the Region.	N/A		
Build communication and collaboration among water resources stakeholders in the Region.	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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes	PECSD is a municipal service provider. The upgraded/new treatment facility will reduce the risk of raw sewage contamination to the Middle Fork of the Feather River, and will improve the quality of effluent being released into the river after treatment. Additionally the treated wastewater will be reused for irrigating a local golf course making the equivalent amount of irrigation water for other supply needs.	

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)
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	Yes	Treatment plant upgrade or replacement will ensure that all raw sewage collected from the community is properly treated and disposed of. Improvements will also decrease the risk of raw sewage flowing into the Middle Fork of the Feather River.	Unknown
Address water resources and wastewater needs of DACs and Native Americans.	N/A		
Coordinate management of recharge areas and protect groundwater resources.	N/A		
Improve coordination of land use and water resources planning.	N/A		
Maximize agricultural, environmental and municipal water use efficiency.	N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	Yes	The treated wastewater will be reused for irrigation in a local golf course. The community will benefit from reduced dependence on “clean” surface/ground water for irrigation during drought years.	
Enhance public awareness and understanding of water management issues and needs.	N/A		
Address economic challenges of agricultural producers.	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)
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	Yes	PECSD is prepared to work with the IRWM and the County to administer any 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 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	
c. Environmental Justice[2]	Yes	PECSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. The upgraded/new wastewater treatment facility will improve sanitation for all members of the community as well as tourists.
d. Drought Preparedness	Yes	The treated wastewater will be reused for irrigation in a local golf course. The community will benefit from reduced dependence on "clean" surface/ground water for irrigation during drought years.
e. Assist the region in adapting to effects of climate change[3]	N/A	

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

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	No	
Urban water use efficiency	Yes	Improvements made would provide recycled wastewater for irrigation, thereby reducing the need of surface water supplies.
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	No	
System reoperation	No	
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	Yes	Recycled water can be directly used for irrigation on the Plumas Pines Golf Course and surrounding open space areas.
Surface storage – regional/local	No	
Improve Water Quality		
Drinking water treatment and distribution	No	
Groundwater remediation/aquifer remediation	Yes	
Matching water quality to water use	Yes	Recycled water can be directly used for irrigation on the Plumas Pines Golf Course and surrounding open space areas.
Pollution prevention	No	
Salt and salinity management	No	
Urban storm water runoff management	No	
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	Yes	Use of recycled water would require a discharge permit from the State Water Resources Control Board.

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?: No
Funding Match Waiver request?: 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**	100%	0	0	Unknown
b.	**Land Purchase/Easement**	100%	0	0	Unknown
c.	**Planning/Design/Engineering / Environmental**	100%	0	0	Unknown
d.	**Construction/Implementation**	100%	0	0	Unknown
e.	**Environmental Compliance/ Mitigation/Enhancement**	100%	0	0	Unknown
f.	**Construction Administration**	100%	0	0	Unknown
g.	**Other Costs**	100%	0	0	Unknown
h.	**Construction/Implementation Contingency**	100%	0	0	Unknown
i.	**Grand Total (Sum rows (a) through (h) for each column)**	Unknown	Unknown	Unknown	Unknown
j.	**Can the Project be phased? 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).**		Service rates would be increased to meet O&M costs when needed.	
l.	**Has a Cost/Benefit analysis been completed?**		**No**	
m.	**Describe what impact there may be if the project is not funded (300 words or less)**		Failure to adequately treat sewage flows and possible pollution of the Middle Fork of the Feather River.	

*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	■	No	TBD	TBD	TBD
b. Final Design	☐	No	TBD	TBD	TBD
c. Environmental Documentation (CEQA / NEPA)	☐	No	TBD	TBD	TBD
d. Permitting	☐	No	TBD	TBD	TBD
e. Construction Contracting	☐	No	TBD	TBD	TBD
f. Construction Implementation	☐	No	TBD	TBD	TBD
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.).	Unknown number of plans related to wastewater collection, treatment, and disposal. Name/numbers of regulations for water quality of treated water? Water Quality Control Plan for the Sacramento and San Joaquin River Basins
b. List technical reports and studies supporting the feasibility of this project.	None
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Wastewater treatment plant #6 is approximately 35 years old, and is urgent need of retrofitting or replacement in order to comply with State and Federal regulations. In addition, the retrofitted/new wastewater treatment facility will be equipped for reclamation of the water for irrigation of a local golf course. Reuse of treated wastewater improves water supply in the area.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	Yes Treated wastewater will be recycled for irrigation of the Plumas Pines Golf Course and surrounding open space areas.
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	No

[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-30:Wastewater Treatment Plant No.6 Upgrade

Project applicant: Plumas Eureka Community 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

Reuse of treated wastewater for irrigation will help meet local water needs during drought.

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

???

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.)

The upgraded/new treatment facility will reduce the risk of raw sewage contamination to the Middle Fork of the Feather River, and will improve the quality of effluent being released into the river after treatment. Additionally the treated wastewater will be reused for irrigating a local golf course making the equivalent amount of irrigation water for other supply needs.

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

MS-30 Wastewater Treatment Plant 6 Upgrade

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 $MTCO_2e$
			0
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**0**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	100	**1**

☒ 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 $MTCO_2e$
2	30	100	**2**

☐ 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-30 Wastewater Treatment Plant 6 Upgrade

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
35,000	kWh (Electricity)	**7**
	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:

GHG Emissions Summary

Construction and development will generate approximately:	3 $MTCO_2e$
In a given year, operation of the project will result in:	7 $MTCO_2e$

featherriver.org

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	Plumas Eureka Community Services District
Name of Primary Contact	Frank Motzkus, General Manager
Name of Secondary Contact	Heather Kotrc, Administrative Manager
Mailing Address	200 Lundy Lane, Blairsden, CA 96103
E-mail	frmotzkus@digitalpath.net
Phone	(530) 836-1953
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Project completion would be dependent on funding alternatives.

II. GENERAL PROJECT INFORMATION

Project Title	MS-31: Wastewater Treatment Plant #7 Lift Station Replacement
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)	The Wastewater treatment plant #7 lift station is approaching 35 years old. It was identified in 2005 as needing to be replaced during the treatment plant upgrade project of 2007. The lift station work was cut from the original treatment plant project due to overall project costs. The existing location of the lift station borders a residence's front yard and raw sewage could flow into the Middle Fork of the Feather River if an overflow occurs. The replacement project will move the lift station to a more appropriate location and provide for 12,000 gallons of emergency storage of raw sewage.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from	Project will remove the existing lift station at 226 Sequoia Circle and build the new across the street at 239 Sequoia

Towns/intersection and/or address):	Circle.
Latitude:	39° 47' 31.7322"
Longitude:	120° 38' 59.7588"

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.	N/A		
Reduce potential for catastrophic wildland fires in the Region.	N/A		
Build communication and collaboration among water resources stakeholders in the Region.	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.	N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	Yes	PECSD is a municipal service provider. The new, relocated, lift station with 12,000 gallons of emergency storage of raw sewage will reduce the risk of raw sewage contamination to the Middle Fork of the Feather River and a resident's yard.	Potential reduction of 12,000 gallons of raw sewage spilling into the Middle Fork of the Feather River and an resident's yard.
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	N/A		
Address economic challenges of municipal service providers to serve customers.	Yes	Grant funding is necessary to implement this project, which will increase reliability of present	

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)
		and future collection and treatment of raw sewage.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	Yes	New lift station would increase the protection of the Middle Fork of the Feather River from raw sewage.	12,000 gallons of emergency storage of raw sewage
Address water resources and wastewater needs of DACs and Native Americans.	N/A		
Coordinate management of recharge areas and protect groundwater resources.	N/A		
Improve coordination of land use and water resources planning.	N/A		
Maximize agricultural, environmental and municipal water use efficiency.	N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	N/A		
Enhance public awareness and understanding of water management issues and needs.	N/A		
Address economic challenges of agricultural producers.	N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	Yes	PECSD is prepared to work with the IRWM and the County to administer any 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 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	
c. Environmental Justice[2]	Yes	PECSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. The new, relocated, lift will improve sanitation for the service area.
d. Drought Preparedness	N/A	
e. Assist the region in adapting to effects of climate change[3]	N/A	
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	N/A	g. Drinking water treatment and distribution	N/A
b. Stormwater capture, storage, clean-up, treatment, management	N/A	h. Watershed protection and management	Yes
c. Removal of invasive non-native species, creation/enhancement of	N/A	i. Contaminant and salt removal through reclamation/desalting,	

wetlands, acquisition/protection/restoration of open space and watershed lands		other treatment technologies and conveyance of recycled water for distribution to users	N/A
d. Non-point source pollution reduction, management and monitoring	Yes	j. Planning and implementation of multipurpose flood management programs	N/A
e. Groundwater recharge and management projects	N/A	k. Ecosystem and fisheries restoration and protection	N/A
f. Water banking, exchange, reclamation, and improvement of water quality	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	No	
Urban water use efficiency	No	
Improve Flood Management		
Flood management	No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	No	
System reoperation	No	
Water transfers	No	
Increase Water Supply		
Conjunctive management	No	
Precipitation Enhancement	No	
Municipal recycled water	No	
Surface storage – regional/local	No	
Improve Water Quality		
Drinking water treatment and distribution	No	
Groundwater remediation/aquifer remediation	No	
Matching water quality to water use	No	
Pollution prevention	Yes	Protects the Middle Fork of the Feather River from raw sewage overflows.
Salt and salinity management	No	
Urban storm water runoff management	No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Practice Resource Stewardship		
Agricultural land stewardship	No	
Ecosystem restoration	No	
Forest management	No	
Land use planning and management	No	
Recharge area protection	No	
Sediment management	No	
Watershed management	No	
People and Water		
Economic incentives	No	
Outreach and engagement	No	
Water and culture	No	
Water-dependent recreation	No	
Wastewater/NPDES	Yes	Adding safeguards to ensure the Middle Fork of the Feather River does not get contaminated with raw sewage.

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?: No
Funding Match Waiver request?: 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**	75%	25%	0	Unknown
b.	**Land Purchase/Easement**	75%	25%	0	Unknown
c.	**Planning/Design/Engineering / Environmental**	75%	25%	0	Unknown
d.	**Construction/Implementation**	75%	25%	0	Unknown
e.	**Environmental Compliance/ Mitigation/Enhancement**	75%	25%	0	Unknown
f.	**Construction Administration**	75%	25%	0	Unknown
g.	**Other Costs**	75%	25%	0	Unknown
h.	**Construction/Implementation Contingency**	75%	25%	0	Unknown
i.	**Grand Total (Sum rows (a) through (h) for each column)**				1,000,000 (Estimate based on 2005 costs)

j.	**Can the Project be phased? 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).**	Service rates would be increased to meet O&M costs when needed.
l.	**Has a Cost/Benefit analysis been completed?**	**No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Possible lift station failure. Raw sewage would overflow into the Middle Fork of the Feather River.

*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	☐	No	TBD	TBD	TBD
b. Final Design	☐	No	TBD	TBD	TBD
c. Environmental Documentation (CEQA / NEPA)	☐	No	TBD	TBD	TBD
d. Permitting	☐	No	TBD	TBD	TBD
e. Construction Contracting	☐	No	TBD	TBD	TBD
f. Construction Implementation	☐	No	TBD	TBD	TBD
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.).	2005 Preliminary Engineering Report (PER) "PECSD Wastewater Treatment Plant #7 Improvement Project" prepared by Shaw Engineering.
b. List technical reports and studies supporting the feasibility of this project.	The PER would need to be updated to reflect current PECSD conditions.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	The Wastewater treatment plant #7 lift station is approaching 35 years old. It was identified in 2005 as needing to be replaced during the treatment plant upgrade project of 2007. The lift station work was cut from the original treatment plant project due to overall project costs. The existing location of the lift station borders a residence's front yard and raw sewage could flow into the Middle Fork of the Feather River if an overflow occurs.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	No
e. Are you an Urban Water Supplier[1]?	No
f. Are you are an Agricultural Water Supplier[2]?	No
g. Is the project related to groundwater?	No

[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–31 Wastewater Treatment Plant No. 7 Lift Station

Project applicant: Plumas Eureka Community 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

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

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.)

The new, relocated, lift station with 12,000 gallons of emergency storage of raw sewage will reduce the risk of raw sewage contamination to the Middle Fork of the Feather River and a resident's yard.

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

MS-31: Wastewater Treatment Plant No.7 Lift Station Replacement

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 $MTCO_2e$
Surfacing Equipment	1	4	3
Cement and Mortar Mixers	1	1	0
Cranes	1	5	4
Crushing/Proc. Equipment	1	2	1
Skid Steer Loaders	1	10	1
Tractors/Loaders/Backhoes	1	10	3
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
5	100	**1**

[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 $MTCO_2e$
2	30	100	**2**

[ ] 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-31: Wastewater Treatment Plant No.7 Lift Station Replacement

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
7,000	kWh (Electricity)	**1**
	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:

GHG Emissions Summary

Construction and development will generate approximately:	14 $MTCO_2e$
In a given year, operation of the project will result in:	1 $MTCO_2e$

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	Quincy Community Services District (QCSD)
Name of Primary Contact	Larry Sullivan, General Manager
Name of Secondary Contact	
Mailing Address	900 Spanish Creek Road, Qunicy, CA, 95971
E-mail	larry@quincycsd.com
Phone	(530) 283-0836
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-32: Water System Improvements
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)	The proposed project consists of four elements that can be implemented as one project or individually. Project components relative to the District boundary are shown on Figure 1. Individual components are described as follows: Spring UV Disinfection Project: The District has applied for project funding through the Interim Emergency Drinking Water Funding program and was denied. The project consists of construction of a 192-square-foot building to house one 6-inch UV Module, piping, turbidimeter, magnetic flowmeter, electrical/telemetry, and controls, and with site piping modifications to tie into the existing system. Refer to Figures 2 and 3.

	Wildland Fuel Reduction Project: The project consists of removing surface and ladder fuels within a 100-foot-wide swath along the District's property boundary adjacent to residential areas, 50 feet on each side of the District's spring supply pipeline, and 100 feet all around the District's Goodwin and Boyle Water Tanks. The clearing work will be performed by hand, in accordance with an approved Timber Harvest Plan. It is estimated the total fuel reduction area is about 16 acres. Refer to Figure 4. South Quincy Pressure Zone Feasibility Study: The feasibility study will consist of developing a GIS-based hydraulic model of the District's water system, utilizing recent water consumption data. The District's 2001 Master Water Plan will be utilized to determine appropriate consumption peaking factors and growth conditions. Using flows and pressures generated by the model, alternatives would be considered and modelled to determine their viability for correcting the low water pressure and substandard fire flows in the vicinity of the Goodwin and Boyle Tanks. After the best alternative is determined using a decision matrix considering monetary and non-monetary factors, the District will seek funding to design and construct the improvements. Refer to Figure 5 for delineation of the low water pressure area in Southern Quincy. Central/Edwards/Summerfield Waterline Replacement Project: This project consists of replacing approximately 1,700 feet of existing small-diameter water main with new 6-inch PVC water main and appurtenances on Center, Edwards, Summerfield, and North Church Streets. In addition, four new fire hydrants, eight 6-inch gate valves, and two 2-inch gate valves will be installed. Refer to Figure 1.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Quincy, CA
Latitude:	120.9481° W
Longitude:	39.9364° N

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	Reduction of surface and ladder fuels along the District's southern urban wildland interface, adjacent to the existing residential area. Expected flame lengths will be reduced to 2 to 4 feet in the treated areas. It is hoped the fuel reduction will allow fire fighters to establish a defensive line along this boundary should a wildfire burn from the heavily-vegetated southern forested area. An additional goal of the fuel reduction is to protect the District's tanks and other water infrastructure if a wild fire occurs.	Approx. 16 acres
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	QCSD is a municipal service provider. The UV disinfection project will improve water quality and create a more reliable water supply, and the feasibility study	0.12 MGD

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)
		will lead to implementation projects that will improve water supply to deficient areas.	
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	Quincy, CA is designated as a disadvantaged community. Infrastructure projects require a significant financial undertaking. Without grant funding the infrastructure projects place an additional burden on the people of a community already struggling financially.	1,728 population
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Installation of UV disinfection system will improve water quality of the existing spring source.	0.12 MGD
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Quincy, CA is designated as a disadvantaged community. The water system improvement projects will improve drinking water quality and delivery needs in the community.	1,728 population
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	Replacement of leaking and undersized water mains that have met their useful service life will reduce leakage in the distribution system, allowing more spring water to discharge into the Feather River for downstream users.	0.45 MG/YR

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)
Effectively address climate change adaptation and/or mitigation in water resources management.	☒ Yes ☐ N/A	Replacing leaking water mains that have met their useful service life prevents catastrophic leaks and allows more spring water to remain in the natural flow to the Feather River. These benefits improve the water distribution system and increase the availability of clean potable water for downstream beneficial use during a time of severe drought and mandatory water restrictions. Impacts on the spring supply will be reduced thus better preparing the District for extended drought conditions. The project also reduces wildland fire fuels nearby the District, reducing the wild fire risk to District residents.	0.45 MG/YR Approx. 16 acres
Improve efficiency and reliability of water supply and other water-related infrastructure.	☒ Yes ☐ N/A	Installation of a UV disinfection system will improve water quality of the existing spring source to allow it to once again supply water to the District. Replacement of leaking and undersized water mains that have met their useful service life will reduce leakage and improve efficiency of the distribution system. The proposed project also investigates the water system in the southern portion of the District which experiences low pressures to determine a solution to the problem, leading to implementation projects to improve reliability and correct deficiencies in the existing water system.	0.12 MGD
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	Public education to system users throughout project development will occur regarding water use and conservation measures.	1,728 population
Address economic challenges of	☐ Yes		

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)
agricultural producers.	☒ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	☒ Yes ☐ N/A	Quincy CSD will work with other stakeholders within the region to administer grant funding and ensure successful implementation of the 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	The proposed project will ensure that all residents have reliable access to pure, clean water. By eliminating leaks in the distribution system, more water will be allowed to enter the Feather River and Sacramento River, which is important to Native American interests.
b. Disadvantaged Communities[1]	☐ N/A	Quincy, CA is designated by DWR as a DAC, and the proposed project will benefit the whole community with more reliable and better quality water service.
c. Environmental Justice[2]	☐ N/A	The proposed project would ultimately provide positive social and economic impacts by improving the District's water system operation throughout the District. QCSD ensures fair treatment and provides service to all people in the area regardless of age, race, color, national origin, or income.
d. Drought Preparedness	☐ N/A	The UV disinfection system will provide a reliable potable water source for all users, and improvements to leaking infrastructure will make full use of available clean potable water and reduce the need to develop new water supply wells.

e. Assist the region in adapting to effects of climate change[3]	☐ N/A	The wildland fuel reduction will reduce the risk to District infrastructure and residents of the City of Quincy. Water system improvement will increase the availability of clean potable water for downstream beneficial uses thus better preparing the District for extended drought conditions.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	The proposed UV disinfection system will have a lower overall energy requirement than pumping groundwater from a new well, which is the preferred alternative if UV installation does not occur.
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	Replacement of leaking and undersized water mains that have met their useful service life will reduce leakage in the distribution system allowing more spring water to discharge into the Feather River for downstream users. The UV disinfection project will improve an existing water supply source, reducing the need to secure other sources such as new water supply wells.
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	The proposed project will increase the District's ability to reliably deliver water service without threat of the public health hazards associated with depressurized water mains. The feasibility study will identify and present solutions for mitigating low water pressures on the south side of the District.
System reoperation	☒ Yes ☐ No	Installation of a UV disinfection system will improve water quality of the existing spring source to allow it to once again supply water to the District. The proposed project also looks to investigate the water system of the southern portion of the District which experiences low pressures to determine implementation project that will mitigate the problem.
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	The proposed project will install a UV disinfection system to improve the water quality of the existing spring source to allow it to once again be available to supply water for the District. The project will also increase the District's ability to reliably deliver water service without threat of the public health hazards associated with depressurized water mains.
Groundwater remediation/aquifer remediation	☐ Yes ☒ No	
Matching water quality to water use	☒ Yes ☐ No	The proposed project will install a UV disinfection to provide clean disinfected drinking water for users without the risk of disinfection byproducts.
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	The proposed project will reduce surface and ladder fuels on 16 acres along the District's southern urban wildland interface, adjacent to the existing residential area. Expected flame lengths will be reduced to 2 to 4 feet in the treated areas. A goal of the fuel reduction is to allow fire fighters to establish a defensive line along this boundary should a wildfire burn from the heavily-vegetated southern forested area.
Land use planning and management	☐ Yes ☒ No	
Recharge area protection	☐ Yes ☒ No	
Sediment management	☐ Yes ☒ No	
Watershed management	☒ Yes ☐ No	The proposed project will reduce surface and ladder fuels on 16 acres along the District's southern urban wildland interface, adjacent to the existing residential area. Expected flame lengths will be reduced to 2 to 4 feet in the treated areas. A goal of the fuel reduction is to allow fire fighters to establish a defensive line along this boundary should a wildfire burn from the heavily-vegetated southern forested area.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
People and Water		
Economic incentives	☐ Yes ☒ No	
Outreach and engagement	☒ Yes ☐ No	Public education to system users throughout project development will occur regarding water use and conservation measures.
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**	$11,500	$3,500		$15,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$90,000	$45,000		$135,000
d.	**Construction/Implementation**	$363,000	$201,000		$565,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$2,000			$2,000
f.	**Construction Administration**	$55,000	$25,000		$80,000
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**	$67,000			$67,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$589,000	$295,000		$884,000

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	$372,000	$5,750	Spring UV Disinfection
	Phase 2	$80,000		Wildland Fuel Reduction
	Phase 3	$42,000		South Quincy Pressure Zone Feasibility Study
	Phase 4	$390,000		Central/Edwards/Summerfield Waterline Replacement
k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**		O&M will be covered under the current rate structure for the District	
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)**		The District will have to pursue funding elsewhere while they continue purchasing 18% of the District's water needs from East Quincy CSD until the Spring UV disinfection system is constructed. Water loss would continue to occur through leaks in antiquated pipelines during a time of drought and mandatory water restrictions. Risk of fire danger would be increased to District residents and important infrastructure needed to fight fires. Public health hazards associated with depressurized water mains would still be a threat in South Qunicy.	

*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			
b. Final Design	☒	☐ Yes ☒ No ☐ N/A	Engineering Design Feasibility Study Prepare Bid documents	4/1/16	7/1/15* 6/30/16
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A	Prepare Negative Declaration	4/1/16	6/30/16
d. Permitting	☐	☐ Yes ☒ No ☐ N/A	Apply and Obtain Timber Harvest Permit	6/1/16	6/30/16
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A	Public bidding/award/contract execution	8/1/15* 7/1/16	8/31/15* 8/14/16
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A	Construct UV Disinfection Construct Waterline Project Execute Wildland Fuel Reduction Project	9/1/15* 8/15/16	10/31/15* 10/31/16
Provide explanation if more than one project stage is checked as current status			*Central/Edwards/Summerfield Waterline Replacement Project is currently under construction to be completed by the end of 2015. All other project elements are waiting for funding commitments to begin final design.		

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.).	District's 2001 Master Water Plan; 1992 QCSD Watershed Project Management Plan. Basin Plan for Sacramento River and San Joaquin River
b. List technical reports and studies supporting the feasibility of this project.	1995 Technical Fuels Report, 2012 Quincy CSD Consumer Confidence Report

c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	A hydraulic model was utilized for the 2001 Master Water Plan (MWP) that identified the low pressure area in the southern portions of Quincy, more specifically on Boyle Street and the upper portion of Coburn Street. The feasibility study will further investigate the low pressure problem to determine necessary improvements. Based on the District's leak repair history and the 2001 MWP, the Central/Edwards/Summerfield Waterline was recommended to be replaced and upsized to an 8" to provide adequate flows. The 2012 Quincy CSD Consumer Confidence Report summarizes the testing and findings that determined the presence of total coliform bacteria in the Claremont Spring. Thinning and fuel reduction along urban wildland interface has been a high priority in the Lassen, Plumas, and Tahoe National Forests for a number of years, as indicated in the 1992 QCSD Watershed Project Management Plan. Further, fuel reduction in the subject project area was recommended as part of a Community Defense Zone in the *Technical Fuels Report*, dated July 1995. Quincy is on the Federal Register wildfire hazard community list. Thus, the subject area is on most existing fuels reduction priority lists from federal and state agencies. Due to the urban wildland interface with the large residential area in southern Quincy, the District considers fuel reduction in this area to be a top priority.
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

X MS-32: Water System Improvements

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.

[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-32: Water System Improvements

Project applicant: Quincy Community 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

The proposed UV disinfection project will improve the quality of the District's existing spring water supply by eliminating harmful bacteria and making the source available to satisfy local municipal water demands, and augment its existing water supply that has seen reduced yield during the drought.

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

By establishing the District's existing spring supply as a reliable source, the impact on area wells is reduced. The water system feasibility study will evaluate and make recommendations to correct existing deficiencies within the water system along the south side of the District. It is expected improvements will lead to more efficient use of the existing water supply through use of more effective controls and booster pumping facilities.

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.)

The Wildland Fuel Reduction portion of the project will treat 16 acres of lands south and adjacent to the District's existing water supply infrastructure and protect homes residing on the south side of the District.

Adding disinfection facilities to the District's existing spring will reduce its reliance on the other system groundwater wells and the need to purchase water from neighboring East Quincy Services District.

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

The Wildland Fuel Reduction Project will help to prevent spread of catastrophic wildfires in the region, thereby reducing the erosion and water quality degradation associated with floods and major precipitation events.

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

The Wildland Fuel Reduction Project will reduce the chances of catastrophic wildfires, and associated erosion and sedimentation caused from rainfall on freshly burned areas. In addition, local fauna and flora will be better protected from catastrophic wildfire.

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

N/A.

MS-32: Water System Improvements

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 $MTCO_2e$
Plate Compactors	1	27	0
Excavators	1	10	4
Off-Highway Trucks	1	37	46
Rubber Tired Loaders	1	10	4
Skid Steer Loaders	1	15	1
Tractors/Loaders/Backhoes	1	11	3
Other Construction Equipment	9	20	15
			0
			0
			0
		Total Emissions	**73**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
23	80	**3**

[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 $MTCO_2e$
10	50	30	**5**

[ ] 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-32: Water System Improvements

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
9,100	kWh (Electricity)	**2**
	Therm (Natural Gas)	**0**

[ ] The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
16	**-101**

*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:

GHG Emissions Summary

Construction and development will generate approximately:	81 $MTCO_2e$
In a given year, operation of the project will result in:	-99 $MTCO_2e$

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	Sierra County Road Department
Name of Primary Contact	Tim Beals
Name of Secondary Contact	Bryan Davey
Mailing Address	P.O. Box 98 Downieville, CA 95936
E-mail	tbeals@sierracounty.ca.gov
Phone	530-289-3201
Other Cooperating Agencies / Organizations / Stakeholders	US Forest Service, SVRCD, CA Fish and Wildlife
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-33:Sierra County Road Improvements
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Drain stormwater on several County roads by installing culverts and drains, building small detention basins, creating drainages, implementing stream bank and land erosion control measures and reestablishing historic flows.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Sierra County County maintained roads: Smithneck Road, Antelope Road, Old Truckee Road, Lemon Canyon Road, Campbell Hot Springs Road, Henness Pass Road (Little Truckee OHV), West Willow, A-23, Heriot Lane, A-24, Calpine Cutoff
Latitude:	39.47327
Longitude:	-120.84616

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	Restore historic flows and restore meadow/wetlands. Implement stabilization measures to stream banks and hillsides to reduce erosion and resulting sedimentation and turbidity in local creeks and the North Fork of the Feather River.	
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	This project is a collaborative effort of the following entities/agencies: USFS, California FWS, SVRCD, who all support and contribute to improvements to Public Land Resources.	
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes ☒ N/A		
Address economic challenges	☐ Yes		

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)
of municipal service providers to serve customers.	☒ N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Install storm runoff control management practices and sediment traps, restore flows truncated by roads, improve water quality, and implement meadow restoration. The project benefits wildlife and fisheries.	
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☒ Yes ☐ N/A	Many road drainages are adjacent to recharge areas and meadows. These meadows and wetlands will be restored and protected by this project,	
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	County, State and Federal Agencies will coordinate efforts to benefit natural resources through this project.	
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
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		
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	☒ Yes ☐ N/A	Sierra County Road Department, and our collaborators, US Forest	

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)
actual administration and implementation of grant funding.		Service, SVRCD, CA Fish and Wildlife Service, will ensure the staff capacity to successfully administer and implement of this 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	
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☐ N/A	Improvements will restore and/or direct previously impaired systems into watercourses or meadow areas.
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	
Improve Flood Management		
Flood management	☒ Yes ☐ No	Reduced erosion and sediment in waterways and better flood management through improved drainages guiding water to meadows/wetlands.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ☒ No	
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	Road drainages will be better controlled and properly discharged.
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ☒ No	
Ecosystem restoration	☒ Yes ☐ No	Reduced stream bank erosion and reduced sedimentation and turbidity in Indian Creek improve cold freshwater habitat and spawning grounds.
Forest management	☐ Yes ☒ No	
Land use planning and management	☒ Yes ☐ No	Best Management Practices (BMPs) will be implemented, and the operation and maintenance of those BMPs will foster

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		coordination among various agencies.
Recharge area protection	☐ Yes ☒ No	
Sediment management	☒ Yes ☐ No	Reduced sediment in creeks & rivers
Watershed management	☒ Yes ☐ No	Improved management of drainages and meadows/wetlands will result in improved watershed health and values
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:

Water Quality improvements, reduce or eliminate drainage overflow onto County Roads, improve floodplain function

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**	$5,000	10,000 County Road Fund	0	$15,000
b.	**Land Purchase/Easement**	0	0	0	0
c.	**Planning/Design/Engineering / Environmental**	$25,000	0	0	$25,000
d.	**Construction/Implementation**	$400,000	0	0	$400,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$5,000	5,000 County Road Fund	0	$10,000
f.	**Construction Administration**	$15,000	0	0	$15,000
g.	**Other Costs**	0	0	0	0
h.	**Construction/Implementation Contingency**	$45,000	1,500 County Road Fund	0	$46,500
		(10% of total)			
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$495,000	16,500 Sierra County Road Fund	0	$511,500

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	$170,500	No O&M anticipated during first year	Year 1: Approximately 1/3 of implementation: install culverts, drain pipes, rip rap, and other BMPs to enhance watershed function and reduce flooding of some County roads included in this project.
Phase 2	$170,500	TBD	Year 2: Approximately 1/3 of implementation: install culverts, drain pipes, rip rap, and other BMPs to enhance watershed function and reduce flooding of some County roads included in this

				project.
	Phase 3	$170,500	TBD	Year 1: Approximately 1/3 of implementation: install culverts, drain pipes, rip rap, and other BMPs to enhance watershed function and reduce flooding of some County roads included in this project.
	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 County budget		
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 bank erosion, water turbidity, and flooding.		

*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	Specific site ID, Agency coordination, develop scope of work	Within 60 days of grant procurement	1-3 years after grant funding secured
b. Final Design	☐	☐ Yes ☒ No ☐ N/A	Implementation plans and materials lists	Within 180 days of grant procurement	1-3 years after grant funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A	Anticipated exemption(s)	Within 365 days of grant procurement	1-3 years after grant funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A	TBD	TBD	1-3 years after grant funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A	N/A Agency work – no contracting required	N/A Force Account	1-3 years after grant funding secured

f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A	TBD	TBD	3 years after grant 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.).	Sierra County General Plan, RCD Plan, USFS Forest Plan, RWQCB Basin Plan for the Sacramento and San Joaquin Rivers
b. List technical reports and studies supporting the feasibility of this project.	Smithneck Wildlife Area EIR Antelope and Smithneck CRMP
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs.
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. Recycled asphalt
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.

[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-33: Sierra County Road Improvements

Project applicant: Sierra County Road Department

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

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

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.)

Reduced sediment loads and turbidity result in improved cold freshwater habitat and spawning habitat.

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

Culverts and BMPs will be implemented to reduce flooding of County roads and runoff of sediment and other possible contaminants into local waterways. The project will reduce erosion and sedimentation and direct drainage water into retention basins/meadows/wetlands for flood management.

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

The project when completed will reduce the erosion and sedimentation in waterways, and will restore natural watercourses and meadows/wetlands to improve ecosystem function and habitat for wildlife and fisheries.

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

MS-33: Sierra County Road Improvements

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 $MTCO_2e$
Excavators	1	5	2
Tractors/Loaders/Backhoes	2	5	3
Dumpers/Tenders	1	5	0
Off-Highway Trucks	1	5	6
			0
			0
			0
			0
			0
			0
		Total Emissions	**11**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
10	30	**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 $MTCO_2e$
5	10	60	**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-33: Sierra County Road Improvements

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:

GHG Emissions Summary

Construction and development will generate approximately:	13	$MTCO_2e$
In a given year, operation of the project will result in:	0	$MTCO_2e$

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	Sierraville Public Utility District
Name of Primary Contact	Nanci Davis
Name of Secondary Contact	Laura Read
Mailing Address	PO Box 325, Sierraville, CA 96126
E-mail	nancidavis212@gmail.com readwriteshoot@gmail.com
Phone	530-574-8331
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes, providing adequate funding is ensured

II. GENERAL PROJECT INFORMATION

Project Title	MS-35: Alternative Water Source Analysis and Development
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Currently the community of Sierraville is served by one spring located on National Forest Land. SPUD would not be able to meet health and safety needs of the community if the single source of water was contaminated, ran dry, lost due to curtailment or water rights issues or damaged or destroyed in a natural disaster. SPUD has been directed by DWR to research and develop an alternative water source. We know we have adjudicated rights to Webber Creek water, but no means to filter, pump and deliver the water. There may also be potential for development of a well somewhere in the vicinity. Phase 1. Hire a consultant to research options and requirements for development of each option. The

	consultant will identify and explore potential sources including an assessment of volume of water to be produced, quality of water, water rights implications and infrastructure requirements. The study will focus on using adjudicated water rights held by the district referenced in the Sierra Valley Decree of 1940 and developing wells in compliance with the local ground water district. Phase 2. Implement the best option recommended by the consultant. Design and construct. Initiate design, engineering, determine cost and schedule, select contractors and construct the facilities. Development of alternative or complementary sources of domestic water will ensure that service would not be interrupted if there is curtailment of use from springs or if the springs stop producing adequate water or if there is damage or destruction of springs.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Within the Sierraville Public Utility District service area, Sierraville, Ca
Latitude:	
Longitude:	

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	SPUD provides fire suppression water to local firefighting agencies. An additional source of water will provide more reliable water supply for emergency fire response.	
Build communication and	☒ Yes	SPUD is a collaboration of	

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)
collaboration among water resources stakeholders in the Region.	☐ N/A	water resource stakeholders and improvements will serve all stakeholders in the district	
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	We are following direction from the DWR to research an alternative water supply.	
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	SPUD is a municipal service provider. Research of an alternative water supply is a regional water management action specifically orchestrated to improve water supply and ensure quality	
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	We are a disadvantaged community and our ratepayers have been unable to fund a study without assistance	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	The study and implementation of alternative water supply would be designed to protect, restore and enhance the quality of water resources	
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Sierraville is a DAC	
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	A hydrogeology base study and engineering analysis report would guarantee this objective	

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	This is one of our objectives in the study	
Effectively address climate change adaptation and/or mitigation in water resources management.	☒ Yes ☐ N/A	SPUD will potentially become less dependent on seasonally impacted water sources if a well is developed	
Improve efficiency and reliability of water supply and other water-related infrastructure.	☒ Yes ☐ N/A	The Alternative source study and implementation will be designed to improve efficiency and reliability of water supply	
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	SPUD will engage community outreach and strive for effective communication with all stakeholders	
Address economic challenges of agricultural producers.	☒ Yes ☐ N/A	If the study determines that a well is viable this will allow more surface water to become available downstream in Sierra Valley and below for use or aquifer recharge.	
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	☒ Yes ☐ N/A	SPUD Board of Directors is a volunteer organization committed to the completion of this 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	Sierraville is a Disadvantaged Community
c. Environmental Justice[2]	☐ N/A	SPUD ensures fair and equal services regardless of race, culture, income, or any other cultural factors. A new water supply will benefit all water users in the service district.
d. Drought Preparedness	☐ N/A	An alternative water source will give the community more versatility in the event of continued drought
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	An alternative water source will give the community more versatility in the event of continued climate change
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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	A new water supply will result in operational flexibility and more reliable water conveyance to our customers.
System reoperation	☒ Yes ☐ No	An additional source will incorporate flexibility into the system to respond to climate change events that could reduce the reliability of the current source. Downstream users will benefit from additional surface water availability.
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	Developing an alternative water source helps insure reliable distribution of safe drinking water.
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	
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**	5,000			5,000
b.	**Land Purchase/Easement**	50,000			50,000
c.	**Planning/Design/Engineering / Environmental**	85,000			85,000
d.	**Construction/Implementation**	305,000			305,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	10,000			10,000
f.	**Construction Administration**	5,000			5,000
g.	**Other Costs –drilling test well & analysis**	200,000			200,000
h.	**Construction/Implementation Contingency**				
i.	**Grand Total (Sum rows (a) through (h) for each column)**	660,000			660,000

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	290,000		Analysis and design
	Phase 2	370,000		Implementation
	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).**	Monthly rate payer fees and from reserves.
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)**	Inability to meet the domestic water health and safety needs of the community of Sierraville

*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	Hire a consultant to identify and explore potential water sources.	Upon securing grant funding	6 months after funding secured
b. Final Design	☐	☐ Yes ☒ No ☐ N/A	Design and engineering of consultant recommended source	6 months after funding secured	9 months after funding secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		9 months after funding secured	11 months after funding secured
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		11 months after funding secured	14 months after funding secured
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		14 months after funding secured	15 months after funding secured
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		15 months after funding secured	17 months after funding is secured
Provide explanation if more than one project stage is checked as current status			Exploratory drilling and hydro analysis needed to determine best location. Need to secure property. Bidding and construction.		

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.).	Curtailment order from DWS
b. List technical reports and studies supporting the feasibility of this project.	Preliminary Engineering Report from Walters Engineering
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	The community of Sierraville is served by one spring located on National Forest Land. SPUD would not be able to meet health and safety needs of the community if the single source of water was contaminated, ran dry, lost due to curtailment or water rights issues or damaged or destroyed in a natural disaster. SPUD has been directed by DWR to research and develop an alternative water source.
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. To be determined
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. 5-12 Sierra 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.

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	Westwood CSD
Name of Primary Contact	Susan Coffi
Name of Secondary Contact	Randy Buchanan
Mailing Address	P.O. Box 319, Westwood, CA 96137
E-mail	office@westwoodcsd.org
Phone	530-256-3211
Other Cooperating Agencies / Organizations / Stakeholders	State Department of Environmental Health, Redding office.
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-36: Water Storage Project
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Construct a one (1) million gallon water storage tank to bring the Westwood Community Services District (WWCSD) up to minimum state requirements: the Waterworks Standards require systems with less than 1,000 service connections to have source and storage capacity equal to or greater than the maximum day demand (MDD). As shown in the Inspection Report, the District's treated water storage capacity is insufficient to meet its estimated MDD. The District has one active water source and one 500,000 water storage tank, and therefore does not have a second source of supply or sufficient storage to meet the source/storage capacity criteria.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from	The District's water source is Walker Spring, located adjacent to the Hamilton Branch of the Feather River, about 3-miles west of Westwood near the community of Clear Creek.

Towns/intersection and/or address):		The District's existing water storage tank is located about ½ mile northeast of the District (north of Highway 36 and east of County Road A-21.
Source:	**Latitude:**	40°-16' W
	Longitude:	121°-04' N
Storage:	**Latitude:**	40°-18' W
	Longitude:	120°-58' N

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	The project will provide approximately 4.5 additional hours of fire suppression capability in the mountain community of Westwood and immediate area.	Unknown
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		

Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	Westwood CSD is a municipal service provider. This project will increase water storage and publicity to the residents of the increased water storage and the reasons for it, will encourage the water users to conserve water and alert them of the need to be vigilant of their water use.	Unknown
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	Grant funding for this project is necessary to ensure that Westwood CSD will be able to meet current State requirements for water storage for serving users and a water supply for emergency fire protection.	Increase water storage by 1,000,000 gallons
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ Yes ☒ N/A		
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	The project will encourage all the users to conserve water and will provide needed storage capacity.	Increase water storage by 1,000,000 gallons
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A	.	
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	Additional storage will provide sufficient water storage to meet State source/storage criteria and enhance the fire suppressing capability of the local Fire Dept.	Unknown
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	Additional storage will provide sufficient water storage to meet State source/storage criteria and enhance the fire suppressing capability of the local Fire Dept.	Unknown

Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	Publicity to the residents of the increased water storage and the reasons for it, will encourage the water users to conserve water and alert them of the need to be vigilant of their water use.	Unknown
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		

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	Bring district up to minimum state requirements: the Waterworks Standards requires systems with less than 1,000 service connections to have storage capacity equal to or greater than maximum day demand (MDD).
c. Environmental Justice[2]	☐ N/A	The Westwood CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	☐ N/A	Increased storage allows for better management of water during drought conditions

e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	

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, distribution and/or storage	☒ 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	
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
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	Increasing existing water storage capacity to comply with State source/storage requirements for drinking water.
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ☒ No	
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	
People and Water		
Economic incentives	☒ Yes ☐ No	Users will be encouraged through newsletters and billing statements to conserve water and more closely comply with the State's mandate to practice water conservation measures.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Outreach and engagement	☒ Yes ☐ No	The District will keep the users abreast of the proposed project and encourage them to comply with the State regulations.
Water and culture	☒ Yes ☐ No	Water conservation is everyone's responsibility and this theme will be solicited to the users via newsletters and billing statements.
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.

Sources of funding:

1. State Revolving Loan Fund (SRLF) administered by the State of California Department of Environmental Health.
2. USDA-Rural Development (Loan or grant).
3. State of California Community Development Block Grant (CDBG).

O & M costs for the new tank will be included in the District's current water rate structure as is currently the case for the existing water tank and other features of the District's water system; i.e. pumping plant, water source, pipelines, valves, meters, etc.

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**	$10,000	0	0	$10,000
b.	**Land Purchase/Easement**	$ 5,000	0	0	$ 5,000
c.	**Planning/Design/Engineering / Environmental**	$60,000	0	0	$60,000
d.	**Construction/Implementation**	$600,000	0	0	$600,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$ 2,000	0	0	$ 2,000

f.	**Construction Administration**	$ 10,000	0	0	$ 10,000
g.	**Other Costs (Const. Inspection)**	$ 3,000	0	0	$ 3,000
h.	**Construction/Implementation Contingency**	$60,000	0	0	$ 60,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$750,000	0	0	$750,000

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).**	The District presently maintains and operates its water system infrastructure through user fees. The user fees schedule includes components for operation, maintenance, capital improvements, replacement, and depreciation. The new tank will be factored into the user fee calculations and adjustments to the fees will be made as determined necessary.
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)**	The District is obligated to seek funding for a new water storage tank from a State or Federal funding agency. The State DHS has expressed to the District (in writing) that additional storage is required. It is the responsibility of the District to pursue and obtain the funds to implement the project.

*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	The necessity for additional water storage was a directive from the State Department of Environmental Health. Additional storage can be constructed adjacent to the existing water tank and connected to the existing tank to allow both tanks to function as either one tank (in parallel) or separately to allow one tank to be taken out of service for repairs, etc.	06/2015	07/2015
b. Final Design	☐	☐ Yes ☒ No ☐ N/A	Final design will not be completed until funding is obtained.	Two months after funding is secured	Four months After funding Is secured
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A	It is anticipated that the environmental documents will be in the form of a Mitigated Negative Declaration, similar to when the existing tank was constructed in 1975.	02/2015	03/2016
d. Permitting	☐	☐ Yes ☐ No ☒ N/A	There are no permits anticipated from other agencies. The land is flat and open requiring minimal clearing and grading.	N/A	N/A

e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A	The project will be subject to public bid and prevailing wages will apply.	07/2016	09/2016
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A	Construction implementation (i.e. inspection and contract administration) will be accomplished by the WWCSD staff and their consultant engineer.	07/2016	09/2016
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.).	The project is consistent with the Westwood CSD master water plan. Budget constraints in 1975 (when the existing water system was constructed), limited the volume of water storage. A second water tank of comparable size was considered a viable component of the overall system for redundancy and required storage volume.
b. List technical reports and studies supporting the feasibility of this project.	The necessity for additional water storage is substantiated by the State of California Drinking Water Standards, wherein water suppliers with 1,000 or fewer customers shall have source/storage equivalent to the maximum daily demand, which in Westwood's case if 1,500,000-gallons.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	The need for additional water storage is derived from the State Standards for small water systems, wherein the storage capacity should be equivalent to the Maximum Daily Demand (MDD), which in Westwood's case is 1,500,000 gallons.
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.

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-36: Water Storage Project

Project applicant: Westwood

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

Additional storage capacity for the community of Westwood's domestic water use. The additional water storage has been requested by the State of California, Department of Environmental Services, Drinking Water Division, to comply with State Water System(s) regulations. Additional water storage will provide increased fire protection capability, increased emergency storage requirements during power outages, which occur frequently in mountainous areas, and reduced power consumption needs at the water source.

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

The additional water storage will reduce the pumping cycles at the water source, lessening the power requirements somewhat. Westwood's water source of supply is dependent on electrical power to operate the turbine pumps that supply water to the community.

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:

- ☒ 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

MS-36: Water Storage Project

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	2	1
Graders	1	1	0
Dumpers/Tenders	1	1	0
Cranes	1	5	4
			0
			0
			0
			0
			0
			0
		Total Emissions	**5**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
1	500	**1**

[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	5	2	**0**

[ ] 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-36: Water Storage Project

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:

GHG Emissions Summary

Construction and development will generate approximately:	6 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

featherriver.org

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	LAWG/Maidu Summit Consortium/Sierra Institute
Name of Primary Contact	Carl Felts
Name of Secondary Contact	Lorena Gorbet/Courtney Gomola
Mailing Address	5231 Quarry Rd
E-mail	carlnrita@frontier.com
Phone	530/284-7982
Other Cooperating Agencies / Organizations / Stakeholders	Westwood Sanitation/Plumas County Environmental Sciences Department/Pacific Gas and Electric.
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-37: Almanor Basin Solid and Wastewater Treatment Plant
Project Category	☐ Agricultural Land Stewardship ☐ Floodplains/Meadows/Waterbodies X Municipal Services ☐ Tribal Advisory Committee ☐ Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	This project will be the first phase of a two-phase project. This phase is to develop an integrated, basin-wide solid waste and wastewater management system for communities around Lake Almanor. The second phase will be the construction of the approved system.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Around Lake Almanor including the surrounding communities.
Latitude:	40° N
Longitude:	120° 48'W

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 **X** N/A		
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes **X** N/A		
Build communication and collaboration among water resources stakeholders in the Region.	**X** Yes ☐ N/A	Developing an integrated basin-wide solid waste and wastewater management system for communities around Lake Almanor will require the existing communities to collaborate.	Lake Almanor and its surrounding communities.
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.	**X** Yes ☐ N/A	As an integrated basin-wide solid waste and wastewater management system is identified all stakeholders, including DWR will be involved in the identification of potential solutions, planning for implementation and participation in implementation of projects.	Lake Almanor and its surrounding communities.
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	**X** Yes ☐ N/A	As an integrated basin-wide solid waste and wastewater management system is identified all stakeholders, including DWR, will be involved in the identification of potential solutions, planning for implementation and participation in implementation of projects.	Lake Almanor and its surrounding communities.
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	**X** Yes ☐ N/A	Members of LAWG have been actively engaged in the FERC relicensing of Lake Almanor since it started. Despite detailed documentation	Lake Almanor and its surrounding communities.

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)
		provided by LAWG demonstrating recent increases in nutrients and blue-green algae in Lake Almanor, this issue was not addressed in the EIR recently released for FERC 2105.	
Address economic challenges of municipal service providers to serve customers.	**X** Yes ☐ N/A	At present all municipal service providers act as separate entities which produce economic challenges. Having an integrated system will reduce those challenges.	Lake Almanor and its surrounding communities.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	**X** Yes ☐ N/A	This project (completion of phase 1 and 2) will be designed to help protect, restore and enhance the quality of water in the Almanor Basin watershed.	Lake Almanor and its surrounding communities.
Address water resources and wastewater needs of DACs and Native Americans.	**X** Yes ☐ N/A	This project (completion of phase 1 and 2) will be designed to address water resources and wastewater needs of DACs and Native Americans in the region.	Lake Almanor and its surrounding communities.
Coordinate management of recharge areas and protect groundwater resources.	**X** Yes ☐ N/A	At present all municipal service providers act as separate entities which produce challenges. Having an integrated system will reduce those challenges.	Lake Almanor and its surrounding communities.
Improve coordination of land use and water resources planning.	**X** Yes ☐ N/A	At present all municipal service providers act as separate entities which produce challenges. Having an integrated system will reduce those challenges.	Lake Almanor and its surrounding communities.
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes **X** 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)
Effectively address climate change adaptation and/or mitigation in water resources management.	**X** Yes ☐ N/A	As an integrated basin-wide solid waste and wastewater management system is identified all stakeholders, including DWR, will be involved in the identification of potential solutions, planning for implementation and participation in implementation of projects. Without this project effects of nutrient deposition due to human waste and other sources will be exacerbated by warmer temperatures and drier years. Therefore, identifying sources of nutrient deposition and avenues for mitigating these impacts will help combat the effects of climate change on these variables.	Lake Almanor and its surrounding communities.
Improve efficiency and reliability of water supply and other water-related infrastructure.	☐ Yes **X** N/A		
Enhance public awareness and understanding of water management issues and needs.	**X** Yes ☐ N/A	During the implementation of this project public meetings will be held to address public needs and awareness.	Lake Almanor and its surrounding communities.
Address economic challenges of agricultural producers.	☐ Yes **X** N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	**X** Yes ☐ N/A	The cooperating entities are committed to ensuring the successful implementation of this project.	Lake Almanor and its surrounding communities.

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	Improve water quality in Lake Almanor, its surrounding communities and the Upper Fork of the Feather River.
b. Disadvantaged Communities[1]	☐ N/A	Improve water quality in Lake Almanor, its surrounding communities and the Upper Fork of the Feather River.
c. Environmental Justice[2]	☐ N/A	Improved water quality in Lake Almanor, will benefit all local residents, businesses, and tourists regardless of all race, culture, or income
d. Drought Preparedness	**X** N/A	
e. Assist the region in adapting to effects of climate change[3]	**X** N/A	
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	**X** N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	**X** 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	**X** Yes ☐ N/A	g. Drinking water treatment and distribution	**X** Yes ☐ N/A
b. Stormwater capture, storage, clean-up, treatment, management	**X** Yes ☐ N/A	h. Watershed protection and management	☐ Yes **X** N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands,	☐ Yes **X** N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies	☐ Yes **X** N/A

acquisition/protection/restoration of open space and watershed lands		and conveyance of recycled water for distribution to users	
d. Non-point source pollution reduction, management and monitoring	**X** Yes ☐ N/A	j. Planning and implementation of multipurpose flood management programs	**X** Yes ☐ N/A
e. Groundwater recharge and management projects	☐ Yes **X** N/A	k. Ecosystem and fisheries protection	**x** Yes ☐ N/A
f. Water banking, exchange, reclamation, and improvement of water quality	**X** 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 **X** No	
Urban water use efficiency	☐ Yes **X** No	
Improve Flood Management		
Flood management	**X** Yes ☐ No	Wastewater management.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes **X** No	
System reoperation	☐ Yes **X** No	
Water transfers	☐ Yes **X** No	
Increase Water Supply		
Conjunctive management	☐ Yes **X** No	
Precipitation Enhancement	☐ Yes **X** No	
Municipal recycled water	**X** Yes ☐ No	Wastewater management.
Surface storage – regional/local	☐ Yes **X** No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes **X** No	
Groundwater remediation/aquifer remediation	☐ Yes **X** No	
Matching water quality to water use	☐ Yes **X** No	
Pollution prevention	**X** Yes ☐ No	Solid waste and wastewater management.
Salt and salinity management	☐ Yes **X** No	
Urban storm water runoff	☐ Yes **X** No	Rural storm water runoff will be addressed.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
management		
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes **X** No	
Ecosystem restoration	☐ Yes **X** No	
Forest management	☐ Yes **X** No	
Land use planning and management	☐ Yes **X** No	
Recharge area protection	☐ Yes **X** No	
Sediment management	**X** Yes ☐ No	Wastewater management.
Watershed management	**X** Yes ☐ No	Wastewater management.
People and Water		
Economic incentives	☐ Yes **X** No	
Outreach and engagement	**X** Yes ☐ No	Stakeholder involvement.
Water and culture	**X** Yes ☐ No	Stakeholder involvement.
Water-dependent recreation	**X** Yes ☐ No	Cleaner water in Lake Almanor which at present is being polluted. Better for the fish, better for the humans.
Wastewater/NPDES	**X** Yes ☐ No	Wastewater management.

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?: **X** Yes ☐ No
Funding Match Waiver request?: **X** 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**	$10,000			$10,000
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$125,000			$125,000
d.	**Construction/Implementation**	Depends on			Phase 1
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**				
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**				
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$135,000			$135,000

j.	**Can the Project be phased?** **X** Yes ☐ No If **yes**, provide cost breakdown by phases			
		Project Cost	**O&M Cost**	**Description of Phase**
	Phase 1	$135,000		Study and Planning
	Phase 2	Depends on 1		Construction
	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).**	Home owners that use the system. Businesses that use the system.
l.	**Has a Cost/Benefit analysis been completed?**	☐ Yes **X** No
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Lake Almanor will continue to degrade to the point where it will no longer be useable.

*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 **X** No ☐ N/A	Phase 1-Study and design	ASAP	ASAP
b. Final Design	☐	☐ Yes **X** No ☐ N/A	Phase 1 will be a study of the problem and the recommendation of a system to correct the problem.	ASAP	6 months after start of phase 1.
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes **X** No ☐ N/A	Depends on award date.	NA	NA
d. Permitting	☐	☐ Yes **X** No ☐ N/A	Depends on award date.	NA	NA
e. Construction Contracting	☐	☐ Yes **X** No ☐ N/A	Depends on award date.	NA	NA
f. Construction Implementation	☐	☐ Yes **X** No ☐ N/A	Depends on award date.	NA	NA
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.).	The intent of phase 1 is to produce such a document to support the conclusions of the Lake Almanor Watershed Assessment Report done in 2007 by EARTHWORKS Restoration Inc. and CH2MHill.
b. List technical reports and studies supporting the feasibility of this project.	Lake Almanor Watershed Assessment Report done in 2007 by EARTHWORKS Restoration Inc. and CH2MHill. Plumas County Environmental Health Department.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Lake Almanor Watershed Assessment Report done in 2007 by EARTHWORKS Restoration Inc. and CH2MHill. Also evaluations conducted by the Plumas County Environmental Health Department.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	**X** Yes ☐ No ☐ N/A During the study and design phase green technology will be used where possible such as solar panels to energize flow instruments in the pipe lines.
e. Are you an Urban Water Supplier[1]?	☐ Yes **X** No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes **X** No ☐ N/A
g. Is the project related to groundwater?	**X** Yes ☐ No ☐ N/A Many homes in the Lake Almanor Watershed use septic systems which have an effect on groundwater. This system would eliminate that source.

[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-37: Almanor Basin Solid and Wastewater Treatment Plant

Project applicant: Carl Felts

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:

X Not applicable

☐ Reduced snowmelt

☐ Unmet local water needs (drought)

☐ Increased invasive species

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:

X Not applicable

☐ Increasing seasonal water use variability

☐ Unmet in-stream flow requirements

☐ Climate-sensitive crops

☐ Groundwater drought resiliency

☐ Water curtailment effectiveness

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

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	Sierraville Public Utility District	
Name of Primary Contact	Nanci Davis	
Name of Secondary Contact	Laura Read	
Mailing Address	PO Box 325, Sierraville, CA 96126	
E-mail	nancidavis212@gmail.com readwriteshoot@gmail.com	
Phone	530-574-8331	
Other Cooperating Agencies / Organizations / Stakeholders		
Is your agency/organization committed to the project through completion? If not, please explain	Yes, providing adequate funding is ensured	

II. GENERAL PROJECT INFORMATION

Project Title	MS-38: Leak Detection and Repair
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Our water delivery system is aging and numerous leaks have been discovered and repaired during routine maintenance. We are certain that there are significant additional undiscovered leaks in the system and repair of those leaks would greatly contribute to our water conservation efforts.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Sierraville Public Utility District boundaries Town of Sierraville
Latitude:	39.5897° N
Longitude:	120.3675° W

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	SPUD provides fire suppression water to local fire fighting agencies. Eliminating water lost to leaks increases the water supply available for fire suppression.	
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	SPUD is a collaboration of water resource stakeholders and improvements will serve all stakeholders in the district	
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	We are following direction from the DWR to find ways to conserve water	
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	Repair of damaged delivery system is a regional water management action specifically orchestrated to improve water supply and ensure quality	
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	We are a disadvantaged community and our ratepayers have been unable to fund a study or repairs without assistance	

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)
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	A leak detection study and repair program will be designed to protect, restore and enhance the quality of water resources	
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Sierraville is a DAC. Repairing leaks in the water system makes more water available to users, and reduces operating costs.	
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	Repair of leaks maximizes water use efficiency	
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	Our aging water-related infrastructure has not been closely examined or repaired in a long time. Repair of leaks maximizes water use efficiency.	
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	SPUD will engage community outreach and strive for effective communication with all stakeholders.	
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	The volunteer Board of SPUD is acting in the best interests of the district. SPUD and the Board are dedicated to the successful implementation of this 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	Sierraville is a Disadvantaged Community
c. Environmental Justice[2]	☒ N/A	All water users, regardless of race, culture, or income, will benefit from system repairs that make water conveyance more efficient and reliable.
d. Drought Preparedness	☐ N/A	Repairing leaks creates water conservation
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
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	

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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	Repair and improve infrastructure
System reoperation	☒ Yes ☒ No	More efficient water use to reduce demand on groundwater.
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	
Improve Water Quality		
Drinking water treatment and distribution	☒ Yes ☐ No	Addresses inadequacies in the distribution system

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
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	
People and Water		
Economic incentives	☐ Yes ☒ No	
Outreach and engagement	☒ Yes ☐ No	SPUD will send flyers to the public about the project and water conservation.
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				
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering / Environmental	5000			5000
d.	Construction/Implementation	150,000			150,000
e.	Environmental Compliance/ Mitigation/Enhancement				
f.	Construction Administration				
g.	Other Costs				
h.	Construction/Implementation Contingency				
i.	Grand Total (Sum rows (a) through (h) for each column)	155,500			155,250

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	2500		Leak detection service
	Phase 2	150,000		Repair of identified leaks
	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).**	From fees collected from rate payers and from reserve
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 undiscovered, underground leaking of domestic water

*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	Ongoing assessment of infrastructure as repairs are performed. Additional leak assessment needed.	Ongoing	2 months after securement of grant funding.
b. Final Design	☐	☐ Yes ☒ No ☐ N/A		3 months after securement of grant funding.	5 months after securement of grant funding.
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		3 months after securement of grant funding.	5 months after securement of grant funding.
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		3 months after securement of grant funding.	4 months after securement of grant funding.
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		3 months after securement of grant funding.	4 months after securement of grant funding.
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		5 months after securement of grant funding.	7 months after securement of grant funding.
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.).	SPUD master plan.
b. List technical reports and studies supporting the feasibility of this project.	Review of infrastructure age warrants replacement.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Leaks in the water system reduce the water volume available for users, and provide a source of possible contamination to drinking water. Comparison studies of water produced to water consumed indicates discrepancies warranting investigation and pipeline replacement.
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.

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-38: Leak Detection and Repair

Project applicant: Sierraville Public Utility 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 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

The project will allow for conservation of the District's source water thus, making more source runoff available to the watershed.

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

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.)

The project will effect a reduction on treatment facility operation and energy consumption.

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

MS-38 Leak Detection and Repair

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	10	3
Dumpers/Tenders	1	10	0
Other Construction Equipment	1	2	0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**3**

[X] 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 $MTCO_2e$
20	40	**1**

[X] 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 $MTCO_2e$
2	1	200	**0**

[ ] 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-38: Leak Detection and Repair

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	5 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Sierraville Public Utility District
Name of Primary Contact	Nanci Davis
Name of Secondary Contact	Laura Read
Mailing Address	PO Box 325, Sierraville, CA 96126
E-mail	nancidavis212@gmail.com
Phone	530-574-8331
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-39: Meter Replacement
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	SPUD has old meters of differing makes and models with unreliable accuracy. Reading becomes difficult due to snow accumulation and rodent damage. It has been difficult to hire and insure a meter reader. Remote read meters with smart technology will allow us to greatly increase water conservation with accurate and immediate leak detection ability.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The town of Sierraville

Latitude:	39° 35’ 19.80 N
Longitude:	120° 21’ 54.85 W

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		
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		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	As a municipal service provider the new meters will enable us to detect leaks sooner and take actions to conserve water more efficiently.	
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 cannot be completed without grant funding. The new meters will provide more consistent	

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)
		information about our customers' usage and the ability to locate and repair leaks promptly so that water is used more efficiently. As we provide the water usage data and information about how to conserve water to residents in their invoices it creates an opportunity for them to conserve more water and see their monthly bills decrease as a direct result of their conservation efforts.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ Yes ☒ N/A		
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Sierraville is a DAC	
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	Better and more complete information about water use allows for better planning.	
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	Immediate leak detection and more information about water use increase efficiency.	
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	Immediate leak detection and more information about water use increase efficiency.	
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	As we provide the water usage data and information about how to conserve water to	

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)
		residents in their invoices it creates an opportunity for them to participate in the responsible management of water resources through their individual conservation efforts.	
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	The volunteer Board of Directors of SPUD is committed to the implementation and completion of this 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	Sierraville is a DAC. The new meters will provide data for immediate leak detection and more information about water use to increase system efficiency and reduce customer waste. The community members will be able to see their monthly bills decrease as a direct result of their conservation efforts.

c. Environmental Justice[2]	☒ N/A	As we provide the water usage data and information about how to conserve water to residents in their invoices it creates an opportunity for them to participate in the responsible management of water resources through their individual conservation efforts. SPUD provides services to all people regardless of race, culture or income.
d. Drought Preparedness	☐ N/A	More efficient use of water with fewer losses to leaks, along with customer awareness is an important step in drought preparedness.
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	Reduction of use of vehicles to go to each meter to read it every month
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	Rural water use efficiency
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	Immediate leak detection and repairs improves efficiency of conveyance and eliminates possible sources of contamination.
System reoperation	☐ Yes ☒ No	
Water transfers	☐ Yes ☒ No	
Increase Water Supply		
Conjunctive management	☐ Yes ☒ No	
Precipitation Enhancement	☐ Yes ☒ No	
Municipal recycled water	☐ Yes ☒ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Surface storage – regional/local	☐ Yes ☒ No	
Improve Water Quality		
Drinking water treatment and distribution	☒ Yes ☐ No	Immediate leak detection and repairs improves efficiency of conveyance and eliminates possible sources of contamination.
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	
People and Water		
Economic incentives	☒ Yes ☐ No	More reliable readings will save users cost when they conserve their use. Additionally, reduced operating costs are ultimately realized by the users.
Outreach and engagement	☒ Yes ☐ No	Customer outreach in the form of newsletters and encouragement to engage the District in advising on conservation.
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	8,000			8,000
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering / Environmental Documentation				
d.	Construction/Implementation	178,000			178,000
e.	Environmental Compliance/ Mitigation/Enhancement				
f.	Construction Administration	8,000			8,000
g.	Other Costs				
h.	Construction/Implementation Contingency				
i.	Grand Total (Sum rows (a) through (h) for each column)	194,000			194,000

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).**	From rate payer fees and reserve account
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 use of unreliable meters, water loss due to undetected leaks, liability exposure for meter reader

*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	Evaluate need and options	6/15	8/15
b. Final Design	☐	☐ Yes ☒ No ☐ N/A	Select meter type and draft proposal planning docs to apply for grant funding as the opportunity arises	8/15	8/15
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☐ No ☒ N/A			
d. Permitting	☐	☐ Yes ☐ No ☒ N/A			
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A	Pre-construction field work, prepare contract docs, bidding	1 month after procurement of grant funding	2 months after procurement of grant funding
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A	Purchase and installation of meters	3 months after procurement of grant funding	4 months after procurement of grant funding
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.).	SPUD General Plan
b. List technical reports and studies supporting the feasibility of this project.	
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	SPUD has old meters of differing makes and models with unreliable accuracy. The District has researched several meter brands and has a good understanding of the new meter reading technology. Reading becomes inconsistent due to snow accumulation and rodent damage. Remote read meters with smart technology will allow us to greatly increase water conservation with accurate readings and immediate leak detection, as well as greater ease of billing.
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. Remote read meters with smart technology result in reduced use of vehicles for monthly meter reading
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.

[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-39: Meter Replacement

Project applicant: Sierraville Public Utility 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 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

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

The project will allow the District to better track customer usage and conservation and, use this information to educate and regulate its customers.

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.)

This project is an effective conservation tool allowing more discharge from the District's source to migrate to the watershed as surface water.

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

MS-39: Meter Replacement

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	3	1
Plate Compactors	1	1	0
Paving Equipment	1	1	0
Concrete/Industrial Saws	1	1	0
Dumpers/Tenders	1	5	0
Other Construction Equipment	1	4	0
			0
			0
			0
			0
		Total Emissions	**2**

[X] 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 $MTCO_2e$
4	75	**0**

[ ] 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 $MTCO_2e$
			0

[ ] 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-39: Meter Replacement

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	2 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	Sierraville Public Utility District
Name of Primary Contact	Nanci Davis
Name of Secondary Contact	Laura Read
Mailing Address	PO Box 325, Sierraville, CA 96126
E-mail	nancidavis212@gmail.com
Phone	530-574-8331
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-40 Pumphouse Improvement
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Upgrade pump house to adhere to OSHA standards, to house new pump and new secondary pump, to isolate chlorine storage, to adequately ventilate and heat, to secure from rodent intrusion, to install eye wash station and for electrical and control upgrades. Depending on results of alternative water source analysis it is possible that the pump house would be designed to house a filtration system.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	NW ¼ NE ¼ of section 25, T.20N. R.14E. MDM US Forest Service Property under the authority of the Federal Land Policy and Management Act - October 21, 1976 Special Use Permit Authorization No SVD106401A
Latitude:	39° 33’ 48.06” N
Longitude:	120° 22’ 15.88 W

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	A reliable delivery system will provide a more dependable source of fire suppression water to support initial attack activities	
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	Will provide more reliable domestic water to SPUD members throughout the town of Sierraville	134 hook-ups
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	Creates a more dependable water supply for service area. Currently pump often falls out of service and requires maintenance and repair	300,000 gallons
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	Provides more efficient chlorination, better monitoring of water quality, more efficient pumping, rodent and pest free environment	
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	Sierraville residents cannot afford this necessary project without financial assistance. This project creates a more cost effective, energy efficient and, reliable delivery system for this	

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)
		community.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Creates a cleaner and more cost-effective and energy efficient delivery system.	
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Sierraville is a Severely Disadvantaged Community serviced by the SPUD conveyance system. A more reliable conveyance system is needed.	
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ☒ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☒ Yes ☐ N/A	A new pump house will ensure pumping capabilities to meet the needs of the system	
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	Improves water quality monitoring, improves reliability and energy efficiency of water delivery system.	
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	SPUD will communicate with members about impacts of the improvements and engage and educate the public in water conservation.	
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	☒ Yes ☐ N/A	SPUD Board of Directors is a volunteer group committed to assuring responsible management of the district.	

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)
funding.			

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	Sierraville is a Severely Disadvantaged Community dependent solely on SPUD services for drinking water. This project will benefit the community by strengthening the ability to deliver water consistently for the long term.
c. Environmental Justice[2]	☐ N/A	The project provides a safer, more reliable water supply for all of our customers regardless of race, culture or income.
d. Drought Preparedness	☐ N/A	A more efficient delivery system improves monitoring capabilities and reduces loss from leaks
e. Assist the region in adapting to effects of climate change[3]	☒ N/A	
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☐ N/A	The new facility will be designed using energy efficient equipment and fixtures, and supplemented with solar power If feasible. Increased reliability will reduce vehicle use and power generation for operation and maintenance.

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	Creates a more efficient delivery system for the rural community.
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	Cleaner and more reliable conveyance system.
System reoperation	☒ Yes ☐ No	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	
Improve Water Quality		
Drinking water treatment and distribution	☒ Yes ☐ No	Includes installation of safe chlorination system and improves monitoring capabilities
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	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
People and Water		
Economic incentives	☐ Yes ☒ No	
Outreach and engagement	☒ Yes ☐ No	SPUD regularly distributes newsletters with information about system operation and water conservation efforts, and tips for individuals.
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**	10,000			10,000
b.	**Land Purchase/Easement**	n/a			n/a
c.	**Planning/Design/Engineering / Environmental**	52,900			52,900
d.	**Construction/Implementation**	154,500			154,500
e.	**Environmental Compliance/ Mitigation/Enhancement**	3,500			3,500
f.	**Construction Administration**	5,000			5,000
g.	**Other Costs**	0			0
h.	**Construction/Implementation Contingency**	17,500			17,500
i.	**Grand Total (Sum rows (a) through (h) for each column)**	243,400			243,400
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).**		From rate-payers monthly payments and reserve – maintenance costs should be reduced as compared to current operation because of increased efficiencies	
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 use of dilapidated, unsafe and unreliable pump house and antiquated equipment. Chlorine storage and use in close proximity to controls will eventually destroy electrical system. During periods of difficult access in winter months the District runs the risk of being unable to refill its storage tank due to not having backup generation onsite, or access to replace the single pump that currently serves the District. If one of these short-term fixes fails SPUD will not be able to supply water for health and safety or fire protection.	

*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	Review with water system operator of problems of existing pump house; alternative water source analysis	4/15	1 month after securement of grant funding
b. Final Design	☒	☐ Yes ☒ No ☐ N/A		5/15	1 month after securement of grant funding
c. Environmental Documentation (CEQA / NEPA)	☐	☒ Yes ☐ No ☐ N/A	Internal scoping has been completed by the Forest Service. An Environmental Assessment/Categor		

			ical Exclusion (documented in a Decision Memo) is expected soon		
d. Permitting	☐	☒ Yes ☐ No ☐ N/A		5/15	8/15
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A			
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A	Construct new building and underground piping. Install new pump and new secondary pump. Install new service panel and electrical panels and motor controls. Isolate chlorine storage, adequately ventilate and heat structure. Install eye wash station,	1 month after securement of grant funding	3 months after securement of grant funding
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.).	SPUD General Plan
b. List technical reports and studies supporting the feasibility of this project.	Water System Upgrades report. Preliminary Engineering Report from Walters Engineering
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Licensed water system operator has defined the need based on his expertise and familiarity with the current system condition. Operator has consulted with the District's current engineer, including preliminary sketches of proposed new facilities. District board has evaluated proposed upgrades with operator and engineer and researched building structure options.
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. Increased energy efficiency supplemented with solar
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.

[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-40 Pumphouse Improvements

Project applicant: Sierraville Public Utility 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 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

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

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.)

Building and outdated and current size of building does not allow adequate space for OSHA requirements for chlorination facilities or additional pump. Pump House is in a remote area for which winter access is difficult. Pumping redundancy and backup generation is needed to maintain reliability in winter months. Electrical equipment is outdated and must be brought up to current codes. A new building would maximize efficiency in heating and cooling, saving on overall energy costs.

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

MS-40: Pumphouse Improvement

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 $MTCO_2e$
Tractors/Loaders/Backhoes	1	5	1
Dumpers/Tenders	1	3	0
Other Construction Equipment	1	1	0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**2**

[X] 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 $MTCO_2e$
6	60	**1**

[X] 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 $MTCO_2e$
4	20	50	**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-40 Pumphouse Improvement

Project Operating Emissions

[X] The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
9,000	kWh (Electricity)	**2**
	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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	3 $MTCO_2e$
In a given year, operation of the project will result in:	2 $MTCO_2e$

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	Sierraville Public Utility District
Name of Primary Contact	Nanci Davis
Name of Secondary Contact	Laura Read
Mailing Address	PO Box 325
E-mail	nancidavis212@gmail.com
Phone	530-414-1257
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	yes

II. GENERAL PROJECT INFORMATION

Project Title	MS-41: Tank Replacement Project
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	SPUD has a storage tank that has been taken out of service due to its dilapidated condition leaving the district with a single 215,000-gallon tank to serve the entire system. The remaining tank is visibly leaking although it has a remaining life of 15 years. SPUD needs additional storage to meet the combination of maximum daily demand and fire protection requirements. Having 2 storage tanks allows operational flexibility by providing redundancy for maintenance or repairs.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Approximately ¼ mile SSW of the intersection of state Hwy 89 and Old Truckee Road
Latitude:	39°34'14.84" N
Longitude:	120°22' 09.06" W

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	Will provide more dependable source of fire suppression water to support initial attack activities	Potentially 300,000 gallons
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	SPUD is a collaboration of water resource stakeholders and improvements will serve all stakeholders in the district	134 hook-ups
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	Increases water supply for service area	300,000 gallons
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	Sierraville Public Utility District is a municipal service provider. This project would allow us to service one tank without interruption of water delivery, providing better water quality, reliability and supply to the district.	Increase of 300,000 gallons
Continue to actively engage in FERC relicensing of hydroelectric facilities in 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)
Address economic challenges of municipal service providers to serve customers.	☒ Yes ☐ N/A	Sierraville is a Severely Disadvantaged Community and Grant funding is necessary to provide safe, reliable water supplies to the local community. SPUD ratepayers have said that an increase in rates to pay for infrastructure improvements would be a serious economic challenge.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	A new storage tank would allow us to better manage the effects of our water system on the groundwater taken from RR Springs	
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	Sierraville is a DAC. This project would address the water resource needs of Sierraville. Sierraville is a hub for tourist and commercial traffic between Interstate 80 and the other communities in the Sierra Valley (the headwaters region for the Middle Fork of the Feather River). Most of the commercial and recreational traffic entering the headwaters area flows through Sierraville. Many visitors stop for food and travel related services in town. A failure of the domestic water supply for this community will hurt the economic viability of the communities in Sierra and Plumas Counties.	134 hook-ups and tourists who support the local economy
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	Greater storage capacity allows us to improve management of water source	

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	Greater storage capacity allows us to improve management of water source	
Effectively address climate change adaptation and/or mitigation in water resources management.	☒ Yes ☐ N/A	Greater storage capacity allows us to improve management of water source and provides protection against potential diminishing source	
Improve efficiency and reliability of water supply and other water-related infrastructure.	☒ Yes ☐ N/A	Greater storage capacity allows us to improve management of water source. This is our primary objective.	
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	SPUD would engage community outreach and strive for effective communication with all stakeholders	
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	SPUD Board of Directors is a volunteer group committed to assuring responsible management of the district. We have no paid staff, only a contract water system operator and secretary. We are prepared to work with the IRWM and the County to administer any 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 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	Sierraville is designated as a Severely Disadvantaged Community and SPUD serves the community.
c. Environmental Justice[2]	☐ N/A	SPUD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	☐ N/A	Greater storage capacity provides reliable service during drought and allows for water collection at most beneficial times.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Greater storage capacity provides reliable service during drought and allows for water collection at most beneficial times.
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	

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	☐ Yes ☒ N/A	i. Contaminant and salt removal through reclamation/desalting,	☐ Yes ☒ N/A

wetlands, acquisition/protection/restoration of open space and watershed lands		other treatment technologies and conveyance of recycled water for distribution to users	
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	Creates a more efficient storage and delivery system
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☒ Yes ☐ No	Having 2 storage tanks allows operational flexibility by providing redundancy for maintenance or repairs.
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	The use of human-made, above-ground reservoirs to collect water for later release when needed.
Improve Water Quality		
Drinking water treatment and distribution	☒ Yes ☐ No	Better management of SPUD resources. Pumping can occur during off-peak hours resulting in operational savings.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
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	SPUD will install new storage tank where existing abandoned tank is located. There will be no expansion of land use for this project.
Recharge area protection	☐ Yes ☒ No	
Sediment management	☐ Yes ☒ No	
Watershed management	☒ Yes ☐ No	SPUD will plant new trees and shrubbery to stabilize erosion and mitigate runoff.
People and Water		
Economic incentives	☒ Yes ☐ No	Increased storage will allow off-peak electrical use.
Outreach and engagement	☒ Yes ☐ No	SPUD encourages and educates on conservation methods.
Water and culture	☒ Yes ☐ No	SPUD educates residents including long time ranchers on water conservation practices.
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	5,000			5,000
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering/ Environmental	25,000			25,000
d.	Construction/Implementation	535,000			535,000
e.	Environmental Compliance/ Mitigation/Enhancement	8,500			8,500
f.	Construction Administration	10,000			10,000
g.	Other Costs				
h.	Construction/Implementation Contingency	46,500			46,500
i.	Grand Total (Sum rows (a) through (h) for each column)	630,000			630,000

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).**	From rate-payers monthly payments and reserve – maintenance costs should be reduced as compared to current operation because of increased efficiencies
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)**	Life of existing storage tank is 10 years. SPUD will have less storage capacity, decreased reliability of service, and no storage capacity in 15 years to serve the residents, businesses, or tourists of Sierraville.

*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	SPUD hired Walters Engineering to create Preliminary Engineering Report	November 2011	3 months after funding secured.
b. Final Design	☐	☐ Yes ☒ No ☐ N/A	We have recommendations from the engineers	Upon securing grant funding.	12 months after funding received.
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A		6 months after funding received	7 months after funding received
d. Permitting	☐	☐ Yes ☒ No ☐ N/A		9 months after funding received	12 months after funding received
e. Construction Contracting	☐	☐ Yes ☒ No ☐ N/A		14 months after funding received	15 months after funding received
f. Construction Implementation	☐	☐ Yes ☒ No ☐ N/A		24 months after funding received	26 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 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.).	
b. List technical reports and studies supporting the feasibility of this project.	Water System Upgrades Preliminary Engineering Report Walters Engineering
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Adding the 300,000-gallon storage tank will ensure OSHA compliance and that NFPA and AWWA codes are met. The project's improved efficiency will improve groundwater management, and provide safe drinking water to 134 households, businesses, and facilities, as well as a larger, more reliable water supply for emergency fire protection.
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. RR Springs is located in the Sierra Valley (5-12) groundwater basin

[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-41: Tank Replacement Project

Project applicant: Sierraville Public Utility 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 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

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

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:

- ☒ 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

MS-41: Tank Replacement Project

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 $MTCO_2e$
Cranes	1	5	4
Rough Terrain Forklifts	1	10	3
Other Construction Equipment	1	12	1
Crawler Tractors	1	2	1
Tractors/Loaders/Backhoes	1	5	1
			0
			0
			0
			0
			0
		Total Emissions	**10**

[X] 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 $MTCO_2e$
8	60	**1**

[X] 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 $MTCO_2e$
5	40	60	**4**

[ ] 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-41: Tank Replacement Project

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

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	15 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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	☐ **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 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". 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

	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.	☐ Yes ■ N/A		
Reduce potential for catastrophic wildland fires in the Region.	■ Yes ☐ 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.	■ Yes ☐ 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.	■ Yes ☐ N/A		
Encourage municipal service providers to participate in regional water management actions that improve water	■ Yes ☐ 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.	☐ Yes ■ N/A		
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ 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.	■ Yes ☐ N/A	Reduce groundwater consumption through early leak detection.	
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ 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.	■ Yes ☐ N/A	Early identification of leaks, less ground water usage would be necessary.	
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal	■ 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.	☐ 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.	☐ Yes ■ N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ 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.	■ Yes ☐ 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.	☐ 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		

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	Increased monitoring and early leak detection reducing customer costs associated with undetected leaks.
c. Environmental Justice[2]	■ N/A	
d. Drought Preparedness	☐ N/A	Less groundwater demand due to more efficient monitoring and leak detection.
e. Assist the region in adapting to effects of climate change[3]	☐ 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)	☐ 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	■ 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	Reduced use due to early leak detection and repair in this rural community
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Improved system efficiency due to early leak detection and repair allowing more water to be available for delivery to neighboring district.
System reoperation	■ Yes ☐ No	Locates and reduces water loss from customer services reduce pumping and ground water depletion.
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	■ Yes ☐ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	☐ Yes ■ No	
Surface storage – regional/local	☐ Yes ■ No	
Improve Water Quality		
Drinking water treatment and distribution	■ Yes ☐ No	Accurate monitoring of gallons pumped vs. gallons metered. Early leak detection and resulting increased efficiency of distribution system.
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	
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	■ Yes ☐ No	More information on water use available to customers. EQSD also distributes water conservation information/tips to our customers.
Water and culture	☐ Yes ■ No	
Water-dependent recreation	☐ Yes ■ No	
Wastewater/NPDES	☐ Yes ■ 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?: ■ 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**		$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?** ☐ **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).**	Annual operations and maintenance budget funded by monthly customer service rates.
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)**	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	■	☐ Yes ☐ No ☐ N/A	Cost/benefit analysis; ???	6/15	1 month after grant agreement
b. Final Design	☐	☐ Yes ■ No ☐ N/A	Selection of meters and retail source for purchase	6/15	1 month after grant agreement
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☐ No ■ N/A	N/A		
d. Permitting	☐	☐ Yes ■ No ☐ N/A	The new meters are unlikely to require permitting	1 month after grant agreement	3 months after grant agreement
e. Construction Contracting	☐	☐ Yes ☐ No ■ N/A	EQSD will install the new meters		
f. Construction Implementation	☐	☐ Yes ■ No ☐ 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.

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.**	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.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	■ Yes ☐ No ☐ N/A Reduces the amount of gasoline required for current manual reading method.
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-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.

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.

X 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
- X 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
- X Water curtailment effectiveness

Expected to reduce water loss though 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:

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

MS-42: Automatic Meter Project (ARM)

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 $MTCO_2e$
Other Construction Equipment	2	46	7
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**7**

[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	46	10	**1**

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

[X] 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 $MTCO_2e$
	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:

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

GHG Emissions Summary

Construction and development will generate approximately:	9 $MTCO_2e$
In a given year, operation of the project will result in:	0 $MTCO_2e$

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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

MS-43: Replace Copper Service Lines

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.

MS-43: Replace Copper Service Lines

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 $MTCO_2e$