



featherriver.org

UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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

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, Quincy, 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	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input checked="" type="checkbox"/> Municipal Services Water Supply/Water Quality Community Water/Wastewater <input type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	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: <u>Spring UV Disinfection Project:</u> 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.

	<p><u>Wildland Fuel Reduction Project:</u> 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.</p> <p><u>South Quincy Pressure Zone Feasibility Study:</u> 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.</p> <p><u>Central/Edwards/Summerfield Waterline Replacement Project:</u> 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.</p>
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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve coordination of land use and water resources planning.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> 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.	<input checked="" type="checkbox"/> N/A		
Work with counties/communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 not leave a blank cell**. Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	<input type="checkbox"/> 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 Communities¹	<input type="checkbox"/> 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 Justice²	<input type="checkbox"/> 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	<input type="checkbox"/> 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 change³	<input type="checkbox"/> 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)	<input type="checkbox"/> 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	<input checked="" type="checkbox"/> N/A	
<p>¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/).</p> <p>² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.</p> <p>³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</p>		

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

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

V. RESOURCE MANAGEMENT STRATEGIES

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ecosystem restoration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Forest management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Recharge area protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sediment management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Watershed management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Public education to system users throughout project development will occur regarding water use and conservation measures.
Water and culture	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water-dependent recreation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wastewater/NPDES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Other RMS addressed and explanation:

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VI. PROJECT COST AND FINANCING

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

PROJECT BUDGET					
Project serves a need of a DAC?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Funding Match Waiver request?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	Direct Project Administration	\$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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
m.	Describe what impact there may be if the project is not funded (300 words or less)		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 Quincy.	
*List all sources of funding. Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).				

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
b. Final Design	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Engineering Design Feasibility Study Prepare Bid documents	4/1/16	7/1/15* 6/30/16
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Prepare Negative Declaration	4/1/16	6/30/16
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Apply and Obtain Timber Harvest Permit	6/1/16	6/30/16
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Public bidding/award/contract execution	8/1/15* 7/1/16	8/31/15* 8/14/16
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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

<p>c. Concisely describe the scientific basis (e.g. how much research has been conducted) of the proposed project in 300 words or less.</p>	<p>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.</p> <p>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.</p> <p>The 2012 Quincy CSD Consumer Confidence Report summarizes the testing and findings that determined the presence of total coliform bacteria in the Claremont Spring.</p> <p>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 <i>Technical Fuels Report</i>, 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.</p>
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please describe.</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>

f. Are you are an Agricultural Water Supplier²?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
g. Is the project related to groundwater?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin.
<p>¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.</p> <p>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.</p>	

Climate Change – Project Assessment Checklist

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

Name of project: MS-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

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

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total MTCO ₂ e
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/Bac khoes	1	11	3
Other Construction Equipment	9	20	15
			0
			0
			0
Total Emissions			73

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO ₂ e
23	80	3

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

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

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
9,100	kWh (Electricity)	2
	Therm (Natural Gas)	0

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total MTCO ₂ e
16	-101

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
0	0

*A negative value indicates GHG reductions

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

GHG Emissions Summary

Construction and development will generate approximately:	81 MTCO ₂ e
In a given year, operation of the project will result in:	-99 MTCO ₂ e