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## UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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

Please provide information in the tables below:

#### I. PROJECT PROPONENT INFORMATION

<b>Agency / Organization</b>	FRCCSD- Old Mill Ranch
<b>Name of Primary Contact</b>	Rick Reynolds
<b>Name of Secondary Contact</b>	Jeffery Wilson
<b>Mailing Address</b>	P.O. Box 141 Twain Ca. 95984
<b>E-mail</b>	<a href="mailto:Reynrick1@comcast.net">Reynrick1@comcast.net</a> <a href="mailto:tobinriverotter@aol.com">tobinriverotter@aol.com</a>
<b>Phone</b>	530 592-5446      530 283-2906
<b>Other Cooperating Agencies / Organizations / Stakeholders</b>	Cal Rural Water Association/ NV5 Engineering/ Old Mill Ranch Home Owners Association/ Plumas County Planning Department/ Plumas County Department of Environmental Health/ Plumas County Supervisor Goss
<b>Is your agency/organization committed to the project through completion? If not, please explain</b>	Yes

#### II. GENERAL PROJECT INFORMATION

<b>Project Title</b>	MS-6: Old Mill Ranch
<b>Project Category</b>	<input type="checkbox"/> <b>Agricultural Land Stewardship</b> <input type="checkbox"/> <b>Floodplains/Meadows/Waterbodies</b> <input checked="" type="checkbox"/> <b>Municipal Services</b> <input type="checkbox"/> <b>Tribal Advisory Committee</b> <input type="checkbox"/> <b>Uplands/Forest</b>
<b>Project Description</b> (Briefly describe the project, in 300 words or less)	Provide a new and sustainable water source that may include primary and back-up wells or surface/spring water source. Included as needed would be water filtration and pipe replacement for small community of 29 existing service connections. The water in the system has high levels of manganese and iron bacteria exceeding secondary drinking water standards. Currently the water is testing for high levels of arsenic that exceed safe drinking water standards. The current practice is purge to waste to bring the arsenic levels back down. The water is currently undrinkable due to extreme odor, red color staining, and taste. The steel pipe was installed in

	<p>the 1960's and is wrapped in tarpaper, the pipe is corroded on the inside and is a prime element in allowing iron bacteria growth within the system. There is currently no back-up system or secondary well in place if there is a system failure.</p> <p>This project will include a Hydrogeologic Study, Specification drawings, cost estimates, well testing and analysis, construction easements, well site purchase options, alternatives including surface or spring source. Construction costs will consist of well drilling and installation or surface water installation, a small building for water works and filtration, and trenching and installing new pipe. There will be an initial planning phase and then a construction phase. The planning phase will compare construction, operation and maintenance costs of the alternatives.</p>
<b>Project Location Description</b> (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Located in community of Old Mill Ranch located on the northwest side of the Feather River. Exact location of improvements to be determined.
<b>Latitude:</b>	40 00' 00' N
<b>Longitude:</b>	121 00' 00' 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.

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	The Feather River Canyon has a history of wells being contaminated with iron bacteria and arsenic. It is hoped through careful analysis this can be mitigated for this project.	

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
Reduce potential for catastrophic wildland fires in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Wildland fires are an ongoing concern however this project will not be able to address this issue.	
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> NA	Yes- We are part of the overall planning related to the IRWM. This project will ensure that a community continues to have clean, safe and reliable drinking water source.	
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	N/A- This project will not have any impact on facilities or water management on the larger scale. It will address the issue of isolated communities on the Feather River.	
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	Yes as part of the CSD we will participate in regional water management to reduce the drought impact by education and reduction of water use within our community.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	N/A We are not involved in this activity due to the fact we are an isolated community without contact with FERC.	
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes as an isolated DAC community we have limited access to project funding. Due to our very small size we have difficulty being a priority related to funding. We are not customers of municipal services.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes- through careful hydrologic studies and planning the most suitable water source would be determined. The new water	

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
the RWQC Basin Plan.		source would provide direct benefit to the community through enhanced quality and sustainability.	
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes- OMR is located in a DAC designated area. It is also a very small number of households. Without financial assistance this community would likely not be able to address the severe water quality and distribution problems that exist.	
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes- Currently there are several options under consideration, that include a possible surface water or ground water solution. Whichever option is decided, there will be ongoing monitoring by a licensed technician.	
Improve coordination of land use and water resources planning.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	N/A	
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes- It is understood that meters will be installed in order to address misuse and mismanagement of water.	
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This project will improve water use efficiencies.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes- Currently the water supply is in jeopardy of total collapse. There is no back-up system, infrastructure pipes are over 50 years old and current water is contaminated and a health risk to the recipients.	
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Yes, this is already being done through the Home Owners Association and our local CSD. This however is a local effort.	

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	This is not related to any agriculture producers.	
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	Yes- The CSD is working in a collaborative manner that includes Cal Rural Water for technical support and application for funding, NV5 Engineering for planning and system implementation. Plumas County Planning and Environmental Health for support, review and implementation. WRCE- Division of Drinking Water for funding support, review and implementation.	

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

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#### IV. PROJECT IMPACTS AND BENEFITS

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

<b>If applicable, describe benefits or impacts of the project with respect to:</b>		
<b>a. Native American Tribal Communities</b>	<input checked="" type="checkbox"/> N/A	N/A- Historic and cultural issues would be addressed if there is an impact due to construction of any project.
<b>b. Disadvantaged Communities<sup>1</sup></b>	<input type="checkbox"/> N/A	Yes- This project is located in a DAC zone. Funding will ensure that an existing viable community remains intact within the Feather River Canyon. Clean drinking water and
<b>c. Environmental Justice<sup>2</sup></b>	<input type="checkbox"/> N/A	FRCCSD ensures fair and equal services

		regardless of race, culture, income, or any other cultural factors.
<b>d. Drought Preparedness</b>	<input type="checkbox"/> N/A	Yes- Education through the Homeowners Association and the local CSD.
<b>e. Assist the region in adapting to effects of climate change<sup>3</sup></b>	<input type="checkbox"/> N/A	The Homeowners Association and CSD would work with any County or State Agency as needed to address this issue as it affects our community.
<b>f. Generation or reduction of greenhouse gas emissions (e.g. green technology)</b>	<input checked="" type="checkbox"/> N/A	Currently there is no know effect of greenhouse gas as a result of this project.
<b>g. Other expected impacts or benefits that are not already mentioned elsewhere</b>	<input checked="" type="checkbox"/> N/A	
<p><sup>1</sup> A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (<a href="http://featherriver.org/maps/">http://featherriver.org/maps/</a>).</p> <p><sup>2</sup> Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.</p> <p><sup>3</sup> Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</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"/>	g. Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/>
b. Stormwater capture, storage, clean-up, treatment, management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input type="checkbox"/> <input checked="" type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input type="checkbox"/> Yes <input checked="" type="checkbox"/>	j. Planning and implementation of multipurpose flood management programs	<input type="checkbox"/> <input checked="" type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	k. Ecosystem and fisheries restoration and protection	<input checked="" type="checkbox"/> <input type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input type="checkbox"/> <input checked="" type="checkbox"/> N/A		

## V. RESOURCE MANAGEMENT STRATEGIES

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
<b>Reduce Water Demand</b>		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No agriculture water use.
Urban water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	While not technically an Urban area we will have much greater efficiency of water use do to a lack of need to flush or purge to waste the system. New water meters will accurately report individual water usage. This will improve water use efficiency management. Water system users will how best to control use in normal times and in drought times when rationing is in effect.
<b>Improve Flood Management</b>		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Improve Operational Efficiency and Transfers</b>		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improve conveyance of water from locally developed sources to the end users located within the same watershed.
System reoperation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improvement of operations and management procedures of water facilities to meet needs more efficiently and reliably.
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Increase Water Supply</b>		
Conjunctive management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	This will be a consideration in the planning process due to the fact that the area contains a good surface water source and possible spring source.
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Improve Water Quality</b>		
Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Yes- Infrastructure would be put in place to filter and provide distribution.
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	This plan may include the possibility of using the existing old redwood water tank and pipes for fire suppression and irrigation.

<b>Resource Management Strategy</b>	<b>Will the Project incorporate RMS?</b>	<b>Description of how RMS to be employed, if applicable</b>
Pollution prevention	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Replace damaged pipes that allow bacteria and other contaminants into the water conveyance system. Eliminate flushing of contaminated water into surface water waterways.
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Practice Resource Stewardship</b>		
Agricultural land stewardship	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ecosystem restoration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Forest management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Land use planning and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	All need permits and historical review prior to any construction will be addressed. This will occur for the period of construction only.
Recharge area protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sediment management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Watershed management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>People and Water</b>		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	This will ensure the community stays intact.
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Through the local CSD and Homeowners Association to both the local and larger community as needed.
Water and culture	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water-dependent recreation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wastewater/NPDES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Other RMS addressed and explanation:



**VI. PROJECT COST AND FINANCING**

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

PROJECT BUDGET					
Project serves a need of a DAC?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Funding Match Waiver request?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	Direct Project Administration	\$37,000 Phase 1			\$37,000 Phase 1
b.	Land Purchase/Easement	\$30,000 Phase 1			\$30,000 Phase 1
c.	Planning/Design/Engineering / Environmental	\$408,000 Phase 1			\$408,000 Phase 1
d.	Construction/Implementation	<i>Phase II</i>			<i>Phase II</i>
e.	Environmental Compliance/Mitigation/Enhancement	\$25,000 Phase 1			\$25,000 Phase 1
f.	Construction Administration				
g.	Other Costs				
h.	Construction/Implementation Contingency				
i.	Grand Total (Sum rows (a) through (h) for each column)	\$500,000 Phase 1			\$500,000 Phase 1
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	\$500,000		Planning	
	Phase 2	TBD		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).	Compare construction, operation and maintenance cost and determine with the local Community Service District what if any increase in current charges will need to be made. Currently there is a yearly water bill assessment paid through the Tax Assessors office to cover maintenance of the system.			
l.	Has a Cost/Benefit analysis been completed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

m.	<b>Describe what impact there may be if the project is not funded (300 words or less)</b>	Based on a recent site visit from the Engineers from NV5 and a recent cleaning of the well, there is a good chance of total failure of the well. It recently lost 20 feet of casing due to cleaning. The well also is on the increase in iron, manganese and arsenic. It has exceeded drinking water standards on all three. There is no backup system other than the old surface water system that does not have a treatment plant. The water that is delivered to the homes is putrid and only really usable for toilets and irrigation.
<p>*List all sources of funding.</p> <p>We have currently submitted through the FASST program through the Drinking Water State Revolving Fund a request for funding the planning stage of \$500.00. Our pin is 31961 under FRCCSD-Old Mill Ranch.</p>		

**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**.

<b>Project Stage</b>	<b>Check the Current Project Stage</b>	<b>Completed?</b>	<b>Description of Activities in Each Project Stage</b>	<b>Planned/ Actual Start Date (mm/yr)</b>	<b>Planned/ Actual Completion Date (mm/yr)</b>
<b>a. Assessment and Evaluation</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Hydrogeologic Study, Specifications, Drawings, and Cost Estimates for Test Well Drilling and Analysis, Construction Easements, Utility Easements, and Well Site Purchase Options, Test Well Drilling and Analysis, Alternatives Evaluation	Date of execution of funding Agreement	14 months after execution of funding Agreement
<b>b. Final Design</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Plans, Specifications and Cost Estimates	14 months after execution of funding Agreement	17 months after execution of funding Agreement
<b>c. Environmental Documentation (CEQA / NEPA)</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	CEQA/NEPA Compliance	14 months after execution of funding Agreement	18 months after execution of funding Agreement
<b>d. Permitting</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD	<i>Phase II</i>	
<b>e. Construction Contracting</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD	<i>Phase II</i>	
<b>f. Construction Implementation</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD	<i>Phase II</i>	
<b>Provide explanation if more than one project stage is checked as current status</b>			Phase I: Planning/Funding Phase II: Construction/Implementation		

**IX. PROJECT TECHNICAL FEASIBILITY**

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

<b>a. List the adopted planning documents the proposed project is consistent with or supported by</b> (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).	See enclosed- Scope of Project
<b>b. List technical reports and studies supporting the feasibility of this project.</b>	Phase I will provide studies and technical reports to determine the feasibility of the project.
<b>c. Concisely describe the scientific basis</b> (e.g. how much research has been conducted) <b>of the proposed project in 300 words or less.</b>	Phase I will provide the Scientific basis for the feasibility of the project.
<b>d. Does the project implement green technology</b> (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If yes, please describe.
<b>e. Are you an Urban Water Supplier<sup>1</sup>?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
<b>f. Are you are an Agricultural Water Supplier<sup>2</sup>?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
<b>g. Is the project related to groundwater?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin.
<p><sup>1</sup> Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.</p> <p><sup>2</sup> Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.</p>	

## Climate Change – Project Assessment Checklist

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

Name of project: MS-6:-Old Mill Ranch

Project applicant: FRCCSD- Rick Reynolds

*This Project is unable to answer any GHG Emissions Assessment questions at this time as the project-  
planning phase yet to be approved and the specific course of action needed to accomplish the project is  
unknown. Adoption and Resiliency Questions have been answered based on current assumptions of how  
the project will proceed.*

## GHG Emissions Assessment

### Project Construction Emissions

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

#### **PHASE II: CONSTRUCTION**

- X The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- X The project requires materials to be transported from outside of the UFR watershed.
- X 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)*

#### **PHASE II: CONSTRUCTION**

- 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.

## 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

Not Applicable

### 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

This project will study the local ground water sustainability issues and locate the well in an area that is expected to produce long-term water quality to the community. It will also include a back-up well which will provide emergency service to the community if required. The community is receiving ongoing information regarding water usage in to provide education for conservation and reduction of water use in general. This information is provided by the local FRCCSD. In addition, the current water system requires weekly, sometimes biweekly flushing of thousands of gallons to bring down arsenic and iron bacteria levels to make it non toxic for households. This flushing puts additional stress on the already fragile groundwater system and provides no beneficial use of the flushed water. The system installed by this project eliminates the need for flushing to prevent toxicity, and therefore prevents the devastating effects on the community of well failure that could result from the current flushing procedures.

## 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

X Water treatment facility operations

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

This project includes infrastructure improvements of water pipe replacement. This will ensure continued domestic water supply to the households and fire hydrants located within the community. The current infrastructure is vulnerable to potential damage that would be extremely difficult to repair due to age and corrosion of the steel pipe and fittings. It is unknown at this time if any water treatment facility will be needed. One of the potential possibilities is to tap into the spring or old surface water system, which may then require additional treatment. The new well and backup well would provide a safe clean domestic 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:

X Not applicable

Aging critical flood protection

Wildfires

Critical infrastructure in a floodplain

Insufficient flood control facilities

Not Applicable

### 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

This project will help maintain the thriving community of Old Mill Ranch in the Feather River Canyon. This community, though small, shops and uses the business's in Twain, Belden, Hot Springs and Caribou.

### 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

Not Applicable