



featherriver.org

UPPER FEATHER RIVER IRWM
PROJECT INFORMATION FORM

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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	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 <input checked="" type="checkbox"/> Municipal Services Tribal Advisory Committee Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>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.</p> <p>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</p>

	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 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	N/A
b. Disadvantaged Communities¹	Lower Cost of water
c. Environmental Justice²	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 change³	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		
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		
Conjunctive management	Yes	Turner Spring will add approximately 24 gallons per year 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.
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*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.

<p>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.).</p>	<p>General plan, water master plan</p>
<p>b. List technical reports and studies supporting the feasibility of this project.</p>	<p>Legal documentation on Turner Springs tracked back to 1911.</p> <p>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.</p>
<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>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.</p>
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p>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</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p>No</p>
<p>f. Are you are an Agricultural Water Supplier²?</p>	<p>No</p>

<p>g. Is the project related to groundwater?</p>	<p>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.</p>
<p>^{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.</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-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

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
Excavators	1	2	1
Tractors/Loaders/Bac khoes	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

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
2	100	0

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
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.

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

MS-2: Turner Springs Improvement

Project Operating Emissions

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
10	kWh (Electricity)	0
	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
20	-126

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
5	-22

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
15	-2,790

*A negative value indicates GHG reductions

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 intensive treatment of Lake Davis water. There will also be a benefit in less energy required to pump water to the "South Tank".

GHG Emissions Summary

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