UPPER FEATHER RIVER IRWM

PROJECT INFORMATION FORM

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

Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	Plumas National Forest
Name of Primary Contact	Ryan Tompkins
Name of Secondary Contact	Ryan Bauer
Mailing Address	159 Lawrence Street, Quincy, CA 95971
E-mail	rtompkins@fs.fed.us; rbauer@fs.fed.us
Phone	530-283-7841, 530-283-7832
Other Cooperating Agencies / Organizations / Stakeholders	Potential Opportunity to work with local Contractors or tribal governments/organizations
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	UF-6: Round Valley/Keddie Handthin
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☐ **Municipal Services** ☐ **Tribal Advisory Committee** ☒ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	The project includes 375 acres of handthinning, piling and burning to reduce hazardous ladder and surface fuels in and around the Round Valley Reservoir and the Wildland urban interface east of the reservoir proximate to the community of Greenville. The areas proposed for treatment include NFS lands within the Greenville Municipal Water District (near Round Valley Reservoir) and within the lower Wolf Creek watershed which is a Plumas NF priority watershed classified as "Functioning at Risk" watershed. High densities of small and intermediate-sized trees and heavy fuel loads within forested stands contribute to hazardous accumulations of surface, ladder, and canopy fuels within the project area. These conditions are highly susceptible to crown

	fire initiation and spread under fire weather conditions, and increase the potential for high-severity stand-replacing fire events. This potential fire behavior leads to increased risk to communities and forest and riparian ecosystems within and adjacent to the Round Valley reservoir watershed, the municipal water supply for the community of Greenville.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The work would be performed in and around Round Valley Reservoir and the wild land urban interface proximate to the Greenville community. Please see the attached map. As shown, this project would complement currently ongoing work through timber sales and already completed work in the project area through past service contracts. Cumulatively, these projects provide connectivity of fuel breaks around Round Valley Reservoir, the municipal watershed for the community of Greenville, and the wildland urban interface surrounding the community of Greenville. In addition these fuel breaks are adjacent to protected activity centers (PACs) for sensitive species including the Calif. Spotted Owl and the Northern Goshawk.
Latitude:	Various - Please see the attached map
Longitude:	Various -Please see the attached map

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

For each of the objectives addressed by the project, provide a one to two sentence description of how the project contributes to attaining the objective and how the project outcomes will be quantified. If the project does not address *any* of the IRWM plan objectives, provide a one to two sentence description of how the project relates to a challenge or opportunity of the Region.

Upper Feather River IRWM Objectives:	**Will the project address the objective?**	**Brief explanation of project linkage to selected Objective**	**Quantification** (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	☒ Yes ☐ N/A	The proposed handthinning treatment will substantially reduce the density of small shade tolerant trees which will restore forest density and structure. This is important to restoring natural hydrologic function for three primary reasons. By reducing the density of trees the treatment would: 1) reduce transpiration	An estimated 375 acres of forest upland enhanced

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)
		from the site and make water more available to more dominant fire tolerant trees. 2) Reduce water interception and evaporation. Thinned stands may be more effective in increasing water yield (Woods et al 2006; Sun et al. 2015), 3) Reduce the potential for high severity stand replacing fire	
Reduce potential for catastrophic wildland fires in the Region.	☒ Yes ☐ N/A	These fuel treatments will be focused on reducing surface fuels and ladder fuel accumulations that can contribute to high severity fire (Agee and Skinner 2005). The fuels treatments proposed have demonstrated effectiveness of reducing the risk of high severity, stand-replacing fire. Lands around and adjacent to Round Valley Reservoir were strategically place to mitigate the threat of high severity wildfire and associated negative effects on water quality.	An estimated 375 acres of forest upland enhanced
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	As shown in the attached map, this project would complement currently ongoing work through timber sales and already completed work in the project area through past service contracts. This project has had multiple stakeholder involvement through its inception and could serve a good example of how the accretion of smaller projects and efforts can create a large positive cumulative effect on a watershed scale.	
Work with DWR to develop strategies and actions for the	☐ 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)
management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	☒ N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☐ Yes ☒ N/A		
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes ☒ N/A		
Address economic challenges of municipal service providers to serve customers.	☐ Yes ☒ N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☒ Yes ☐ N/A	Through project planning, Round Valley Reservoir was identified as a resource of concern due to its municipal water supply status. This project aims to improve the forest conditions within the municipal watershed and immediately surrounding the reservoir. The fuel treatments were designed to reduce hazardous fuels accumulations and the potential for catastrophic fire and associated negative effects within the municipal watershed.	
Address water resources and wastewater needs of DACs and Native Americans.	☒ Yes ☐ N/A	This project is focused on improving the conditions within the Greenville municipal watershed and adjacent WUI. These areas fall within those designated as disadvantaged communities by the DWR.	
Coordinate management of	☐ Yes		

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
recharge areas and protect groundwater resources.	☒ N/A		
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	The fuel reduction priorities of this project are driven by the nexus of watershed risk and forest conditions. This project is focused on protecting and improving water quality and water supply reliability by improving the health of forest conditions within the municipal watershed and adjacent lands within the lower Wolf Creek watershed (a USFS priority watershed designated through the Watershed Condition Assessment process).	
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	☒ Yes ☐ N/A	The project planning recognizes that under changing climate precipitation form/patterns, vegetation communities will change in concert with more active fire. This project is designed to mitigate negative effects of future fire on watershed health and water resources.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	☒ Yes ☐ N/A	This project is designed to mitigate negative effects of future fire on watershed health, water supply and quality, water resources.	
Enhance public awareness and understanding of water management issues and needs.	☐ Yes ☒ N/A		
Address economic challenges of agricultural producers.	☐ Yes ☒ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for	☒ Yes	These units have gone through the federal NEPA process under the Keddie Ridge Hazardous	

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
actual administration and implementation of grant funding.	☐ N/A	Fuels Reduction Project Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) signed December 7, 2011. Since this is a Forest Service Project and followed the federal NEPA process, the project record may have to be reviewed for CEQA compliance. The units have been flagged and mapped and all ready to be solicited for service contract. The service contract to hand thin and pile hazardous fuels would ideally be solicited and awarded in the Spring of 2016. Handpiles would be burned by Forest Service crews between the Fall/Winter 2016/2017/2018 pile burn seasons, as conditions permit.	

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

IV. PROJECT IMPACTS AND BENEFITS

Please provide a summary of the expected project benefits and impacts in the table below or check N/A if not applicable; **do no leave a blank cell.** Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	☐ N/A	Heritage resources within the project area will be protected according to Heritage input from the project. Local tribal governments and organizations were scoped during the development of the project.
b. Disadvantaged Communities[1]	☒ N/A	This project is focused on improving the conditions within the Greenville municipal watershed and adjacent WUI . These areas fall within those designated as disadvantaged communities by the DWR.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☐ N/A	Thinning overly dense forest stands improve residual tree and forest stand resistance to future drought and increases of insects and disease.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	Thinning overly dense forest stands improve residual tree and forest stand resistance to future drought, insects and disease, and fire – all of which are disturbances which are predicted to become more frequent under a changing climate (Westerling and Bryant 2008; Merriam et al 2013, McDowell and Allen 2015)..
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☒ N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	☒ N/A	

[1] A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/) .

[2] Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.

[3] Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

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

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

V. RESOURCE MANAGEMENT STRATEGIES

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	☐ Yes ☒ No	
Urban water use efficiency	☐ Yes ☒ No	
Improve Flood Management		
Flood management	☐ Yes ☒ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
Water transfers	☐ Yes ☒ No	
Increase Water Supply		
Conjunctive management	☐ Yes ☒ No	
Precipitation Enhancement	☐ Yes ☒ No	
Municipal recycled water	☐ Yes ☒ No	
Surface storage – regional/local	☐ Yes ☒ No	
Improve Water Quality		
Drinking water treatment and	☐ Yes ☒ No	Treatments are designed to protect water

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
distribution		quality in watershed surrounding municipal water supply.
Groundwater remediation/aquifer remediation	☐ Yes ☒ No	
Matching water quality to water use	☐ Yes ☒ No	
Pollution prevention	☒ Yes ☒ No	Project level mitigations would be used to prevent erosion/sediment delivery to streams and waterbodies. In addition, project purpose, need, and design includes reducing risk of negative watershed, water quality, and water quantity effects of catastrophic wildfire.
Salt and salinity management	☐ Yes ☒ No	
Urban storm water runoff management	☐ Yes ☒ No	
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ☒ No	
Ecosystem restoration	☒ Yes ☐ No	Project is designed to improve the resiliency and sustainability of forested landscapes by restoring forest structure and ecosystem function.
Forest management	☒ Yes ☐ No	Project is designed to reduce stand density and improve forest resistance to drought, and drought related mortality. This includes treating upland and riparian forests to reduce the risk of high severity fire and selective thinning of overly dense smaller trees to reduce evapotranspiration and interception and improve streamflow regimen.
Land use planning and management	☐ Yes ☒ No	
Recharge area protection	☒ Yes ☐ No	Project is designed to reduce hazardous fuel profiles, reduce risk of high severity stand replacing fire, and improve forest conditions within the priority watershed of lower Wolf Creek.
Sediment management	☒ Yes ☐ No	Project is designed to reduce hazardous fuel profiles, reduce risk of high severity stand replacing fire, and improve forest conditions within the priority watershed of lower Wolf Creek. BMP's would be implemented as part of the project design features to mitigate potential for erosion and sediment delivery.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Watershed management	☒ Yes ☐ No	Project is designed to reduce hazardous fuel profiles, reduce risk of high severity stand replacing fire, and improve forest conditions within the priority watershed of lower Wolf Creek
People and Water		
Economic incentives	☐ Yes ☒ No	
Outreach and engagement	☐ Yes ☒ No	
Water and culture	☐ Yes ☒ No	
Water-dependent recreation	☐ Yes ☐ No	Round Valley Reservoir is used for water-based recreation. Project is designed to reduce risk of catastrophic wildfire within the watershed, while meeting visual quality objectives for recreation area surrounding Round Valley Reservoir.
Wastewater/NPDES	☐ Yes ☒ No	

Other RMS addressed and explanation:

VI. PROJECT COST AND FINANCING

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

PROJECT BUDGET

Project serves a need of a DAC?: ☒ Yes ☐ No
Funding Match Waiver request?: ☐ Yes ☒ No

	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	**Direct Project Administration**	-	$10,000	-	$10,000
b.	**Land Purchase/Easement**	-	-	-	-
c.	**Planning/Design/Engineering / Environmental**	-	-	-	-
d.	**Construction/Implementation**	$169,000	$151,000		$320,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$20,000			$20,000
f.	**Construction Administration**	-	-	-	-
g.	**Other Costs**	-	-	-	-
h.	**Construction/Implementation Contingency**	-	-	-	-
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$189,000	$161,000	-	$350,000

j.	**Can the Project be phased?** ☐ Yes ☐ No If **yes**, provide cost breakdown by phases			
		Project Cost	**O&M Cost**	**Description of Phase**
	Phase 1			
	Phase 2			
	Phase 3			
	Phase 4			

k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**	Maintenance costs would be very low and project may be maintained by prescribed fire or managed natural fire.
l.	**Has a Cost/Benefit analysis been completed?**	☒ Yes ☐ No (Through NEPA Analysis)
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	

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

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	☐	☒ Yes ☐ No ☐ N/A	Assessments and Evaluations already covered under NEPA Analysis		Completed 12/2011
b. Final Design	☐	☒ Yes ☐ No ☐ N/A	Design already covered under NEPA Analysis		Completed 12/2011
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A	NEPA Analysis and Record of decision approved 12/07/2011. NEPA analysis would need to be reviewed for CEQA compliance	CEQA compliance could start as early as Fall 2015	NEPA Completed 12/2011 CEQA compliance Incomplete
d. Permitting	☒	☐ Yes ☐ No ☐ N/A	Project has already been submitted (June 2014) on batch consultation with USFWS. Need air quality permitting for burn pile burning	Dependent on burn season	USFWS consultation complete
e. Construction Contracting	☒	☐ Yes ☐ No ☐ N/A	Contract packaging is near completion. Units are laid out, flagged and GPS'ed. Specs are written	Contract can be ready for solicitation with 2-week notification	
f. Construction Implementation	☐	☐ Yes ☐ No ☐ N/A	Handthinning contract could be awarded in Spring 2016. Handpiles could be burned in the fall/winter of 2016, 2017, or 2018 burn pile seasons, as conditions permit		
Provide explanation if more than one project stage is checked as current status			Project is ready to be implemented but will require some CEQA compliance review.		

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.).	1988 Plumas National Forest LRMP 2004 Sierra Nevada Framework Plan Amendment ROD Plumas County CWPP
b. List technical reports and studies supporting the feasibility of this project.	• Merriam et al. 2013 Plumas, Lassen, Modoc National Forests Climate Change Vulnerability Assessment • Woods et al 2006 Snow accumulation in thinned lodgepole pine stands • Sun et al 2015 Modelling the potential role of forest thinning in maintaining water supplies under a changing climate across the conterminous United States • McDowell and Allen 2015. Darcy's law predicts widespread forest mortality under climate warming • Westerling and Bryant 2008 Climate change and wildfire in California • Agee and Skinner 2005. Basic Principles of forest fuel reduction treatments.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	Fuel treatment effectiveness in reducing negative effects of high severity fire has been well documented over the past two decades through a large body of fire science literature and case studies, many of which were derived from projects implemented on the Plumas National Forest.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	☐ Yes ☒ No ☐ N/A If yes, please describe.

e. Are you an Urban Water Supplier[1]?	☐ Yes ☒ No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes ☒ No ☐ N/A
g. Is the project related to groundwater?	☒ Yes ☐ No ☐ N/A If yes, please indicate which groundwater basin.

[1] Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.

[2] Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.

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GHG Emissions Analysis

Project Construction Emissions

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

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total $MTCO_2e$
Rubber Tired Loaders	2	36	29
Excavators	1	36	16
Excavators	1	36	16
Other Construction Equipment	1	36	3
			0
			0
			0
			0
			0
			0
		Total Emissions	**63**

[X] The project requires biomass materials to be transported outside of the UFR watershed. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
30	105	**5**

[ ] The project requires workers from outside of the UFR watershed. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total $MTCO_2e$
			0

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

NOTE: The difference between 3436 MTCO2e (USFS GHG calculation in alternate method doc) and -2636 MTCO2e is partially methodological. The primary difference in the GHG emissions is the open burning of thinned materials instead of processing thinned materials in a biomass electrical generating facility. The difference of 800MTCO2e is the project GHG emission without biomass and using a more forest-specific GHG accounting methodology.

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

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Project Operating Emissions

☐ The project requires energy to operate. If yes:

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

☐ The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
375	**-2,363**

*A negative value indicates GHG reductions

☐ The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

☐ The project will include new trees. If yes:

Acres of Trees Planted	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	68	$MTCO_2e$
In a given year, operation of the project will result in:	-2,363	$MTCO_2e$