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	Feather River chapter of Trout Unlimited (FRTU)
Name of Primary Contact	Cindy Noble
Name of Secondary Contact	Tim Kurdupski
Mailing Address	POB 278, Graeagle CA 96103
E-mail	cindy.noble@frtu.org
Phone	530) 249-0444
Other Cooperating Agencies / Organizations / Stakeholders	US Forest Service, Natural Resources Conservation Service, Caltrans, and other Upper Feather River non-profit organizations in addition to private landowners.
Is your agency/organization committed to the project through completion? If not, please explain	Yes, this is a multi- project submittal that encompasses work the Chapter would like to accomplish in the next 10 years.

II. GENERAL PROJECT INFORMATION

Project Title	FMW-15: Fish Habitat Assessment/Restoration, Public Awareness/Education
Project Category	☐ **Water Supply/Water Quality** ■ **Environmental Protection/Restoration** ☐ **Community Water/Wastewater** ■ **Stakeholder/Public Collaboration and Education** ☐ **Working Landscape Viability**
Project Description (Briefly describe the project, in 300 words or less)	FRTU is utilizing the IRWMP to bring forth the Chapter's priority projects. The Chapter intends to: 1) continue working with the USFS and Caltrans to expand the Interpretive Sign program that is currently being developed in the Storrie Fire area; 2) work with Plumas County Unified School District (PCUSD) to expand our regional Trout in the Classroom program; 3) further investigate and plan for a total renovation of the James Lee site in the Feather River Canyon; and 4) address fish passage on private and public lands by installing fish screens where willing landowners exist. FRTU is currently working on a Basin Wide Assessment in the Upper Feather River region that we feel will guide Trout Unlimited's Strategic Planning process beyond the four proposed projects identified in this submission.

Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Other than the renovation of the James Lee site in the Feather River Canyon, the scope of our four projects are region wide.
Latitude:	N/A
Longitude:	N/A

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

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

Upper Feather River IRWM Objectives:	**Will the project address the objective?**	**Brief explanation of project linkage to selected Objective**	**Quantification** (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	☐ Yes ■ N/A		
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ■ N/A		
Build communication and collaboration among water resources stakeholders in the Region.	■ Yes ☐ N/A	The Interpretive Sign and Trout in the Classroom programs will build communication and project collaboration opportunities with a diverse group of stakeholders to better understand existing conditions of the region's fisheries.	
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	■ Yes ☐ N/A	FRTU is focused on recreational and environmental issues as related to the Fish and Fishery in our region, and connecting those issues to DWR's objectives.	

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)
Region.			
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	Fish would be "the primary beneficiary" of any plan to protect, restore and enhance surface waters in the region. One of the objectives of Trout Unlimited's Basin Wide Study is to evaluate presence of aquatic invasives.	
Address water resources and wastewater needs of DACs and Native Americans.	☐ Yes ■ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ■ N/A		
Improve coordination of land use and water resources planning.	☐ Yes ■ N/A		
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ■ N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	By way of the Interpretive Signage program we feel there is a way to convey to the public and visitors' any climate change adaptation measures that are being implemented in the region. Along with educating public, fish passage projects will address climate change needs.	

Upper Feather River IRWM Objectives:	**Will the project address the objective?**	**Brief explanation of project linkage to selected Objective**	**Quantification** (e.g. acres of streams/wetlands restored or enhanced)
Improve efficiency and reliability of water supply and other water-related infrastructure.	☐ Yes ■ N/A		
Enhance public awareness and understanding of water management issues and needs.	■ Yes ☐ N/A	By way of the Interpretive Signage program and our Trout in the Classroom program we feel there is a way to convey to the public and visitors the importance of water management in the region.	Average of 200+ students annually.
Address economic challenges of agricultural producers.	☐ Yes ■ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	☐ Yes ■ N/A		

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

In the past, efforts have been made to restore meadows, degraded creeks, and streams with little attention to the effects of these efforts to the fish and fishery. FRTU is participating in the 2015-2016 IRWMP planning process to insure that there is discussion in the Plan Update that speaks to the importance of the fish and fishery in the region. The FRTU Basin Wide Assessment will ensure that any planning or restoration projects that FRTU undertake in the future will be broadly viewed and fit into our strategy to provide cold water refugia for the existing fish populations.

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	FRTU hopes to partner with Tribal Communities to convey the basic tenants of Traditional Ecological Knowledge as a function of our Trout in the Classroom program.
b. Disadvantaged Communities[1]	■ N/A	
c. Environmental Justice[2]	■ N/A	
d. Drought Preparedness	■ N/A	
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	By working with EcoSystem Sciences, we hope to provide a science based approach to climate change adaptation measures that will protect fish in the region.
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	Unknown at this time.

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

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

V. RESOURCE MANAGEMENT STRATEGIES

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	☐ Yes ■ No	
Urban water use efficiency	☐ Yes ■ No	
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ■ No	
System reoperation	☐ Yes ■ No	
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	☐ Yes ■ No	
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	☐ Yes ■ No	
Surface storage – regional/local	☐ Yes ■ No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ■ No	
Groundwater remediation/aquifer remediation	☐ Yes ■ No	
Matching water quality to water use	☐ Yes ■ No	
Pollution prevention	☐ Yes ■ No	
Salt and salinity management	☐ Yes ■ No	
Urban storm water runoff management	☐ Yes ■ No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ☐ No	
Ecosystem restoration	■ Yes ☐ No	All efforts to restore cold water refugia in the region will benefit the ongoing work of FRTU. This will include controlling non-native plant and animal species, and addressing issues related to fish passage.
Forest management	☐ Yes ■ No	
Land use planning and management	☐ Yes ■ No	
Recharge area protection	☐ Yes ■ No	
Sediment management	☐ Yes ■ No	
Watershed management	■ Yes ☐ No	Fish passage and barrier removal will improve blocked access to rearing and spawning habitat for anadromous fish.
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	■ Yes ☐ No	The Interpretive Sign program will educate both residents and visitors about existing conditions of the fishery and the fish, such as aquatic invasive species. The trout in the Classroom program will engage and educate local youth about the importance of our local fisheries. Both of these outreach efforts will lead to a more informed and engaged population.
Water and culture	■ Yes ☐ No	Both the Interpretive Sign program and the Trout in the Classroom program provide an educational experience that is inextricably linked to cultural values and tradition.
Water-dependent recreation	■ Yes ☐ No	This suite of projects is based on the anticipated increase and quality of water-based recreation experiences for adults and youth in the region.
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 ■ unknown at this time.

	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	**Direct Project Administration**	$60,000			
b.	**Land Purchase/Easement**				
c.	**Planning/Design/Engineering / Environmental**	$15,000			
d.	**Construction/Implementation**	$95,000			
e.	**Environmental Compliance/ Mitigation/Enhancement**				
f.	**Construction Administration**	$10,000			
g.	**Other Costs**				
h.	**Construction/Implementation Contingency**				
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$180,000	$30,000		$210,000

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	$70,000		One year of Trout in the Classroom Program; One year of Coordination & Implementation of Interpretive Sign program; Phase 1 of implementing fish passages.
	Phase 2	$70,000		One year of Trout in the Classroom Program; One year of Coordination & Implementation of Interpretive Sign program; Phase 1 of implementing fish passages.
	Phase 3	$70,000		One year of Trout in the Classroom Program; One year of Coordination & Implementation of

				Interpretive Sign program; Phase 1 of implementing fish passages.
	Phase 4			
k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**		Sign and fish passage structures shared responsibility between USFS, Caltrans, and participating private landholders.	
l.	**Has a Cost/Benefit analysis been completed?**		☐ **Yes** ■ **No**	
m.	**Describe what impact there may be if the project is not funded (300 words or less)**		Upper Feather River region-wide fisheries continue to decline and are increasingly threatened by the negative impacts of aquatic invasive species, loss of habitat, and uni-formed decision-making. FRTU is currently the sole entity with a long-term focus dedicated to addressing fish and fishery issues and the relationship to improved management of water use as related to recreation, water quality, water quantity, and future needs. This project directly addresses the lack of access to cold water refugia by strategically increasing number of fish passages and removing barriers to fish migration in collaboration with partners.	

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

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	☐	■ Yes ☐ No ☐ N/A			
b. Final Design	■	☐ Yes ■ No ☐ N/A	Fish passages design needs to be completed. Interpretive Signs design needs to be finalized in collaboration with Caltrans.	TBD	TBD
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A		TBD	TBD
d. Permitting	☐	☐ Yes ■ No ☐ N/A		TBD	TBD
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A		TBD	TBD
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A		TBD	TBD
Provide explanation if more than one project stage is checked as current status			N/A		

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.).	California Water Plan 2013 USFS Region 5 Forest Plan
b. List technical reports and studies supporting the feasibility of this project.	"Assessment & Analysis of Cold Stream as Potential Reintroduction Site for Lahontan Cutthroat Trout" "Final Restoration Plan for Anadromous Fish Restoration Program"
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	FRTU Basin Wide Assessment (in progress)
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	☐ Yes ☐ No ■ N/A If yes, please describe.
e. Are you an Urban Water Supplier[1]?	☐ Yes ■ No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes ■ No ☐ N/A
g. Is the project related to groundwater?	☐ Yes ☐ No ■ N/A If yes, please indicate which groundwater basin.

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

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

Climate Change – Project Assessment Checklist

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

Name of project: FMW-15: Fish Habitat Assessment/Restoration, Public Awareness/Education

Project applicant: Feather River Trout Unlimited (FRTU)

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

FRTU Basin Wide Assessment Plan (in progress) will be used to address invasive aquatic species.

Water Demand

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water demand vulnerability issues:

- ☒ Not applicable
- ☐ Increasing seasonal water use variability
- ☐ Unmet in-stream flow requirements
- ☐ Climate-sensitive crops
- ☐ Groundwater drought resiliency
- ☐ Water curtailment effectiveness

Water Quality

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water quality vulnerability issues:

- ☐ Not applicable
- ☐ Increasing catastrophic wildfires
- ☐ Eutrophication (excessive nutrient pollution in a waterbody, often followed by algae blooms and other related water quality issues)
- ☐ Seasonal low flows and limited abilities for waterbodies to assimilate pollution
- ☐ Water treatment facility operations
- ☒ Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

Proposed involvement in fish passage and barrier removal projects will directly address unmet beneficial uses by improving access to freshwater rearing and spawning habitat for anadromous fish.

Flooding

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority flooding vulnerability issues:

- ☒ Not applicable
- ☐ Aging critical flood protection
- ☐ Wildfires
- ☐ Critical infrastructure in a floodplain
- ☐ Insufficient flood control facilities

Ecosystem and Habitat

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority ecosystem and habitat vulnerability issues:

- ☐ Not applicable
- ☐ Climate-sensitive fauna or flora
- ☒ Recreation and economic activity
- ☐ Quantified environmental flow requirements
- ☐ Erosion and sedimentation
- ☒ Endangered or threatened species
- ☒ Fragmented habitat

The project will result in upstream expansion of current reaches of anadromous fish for spawning and rearing, therefore increasing species ability to exist in changing climate conditions. Recreation opportunities related to maintaining healthy watershed conditions for fish populations leads to increased economic benefits for this region, which primarily consists of DACs.

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

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GHG Emissions Analysis

Project Construction Emissions

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

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total $MTCO_2e$
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
		Total Emissions	**0**

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
		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 $MTCO_2e$
			0

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

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

FMW-15: Fish Habitat Assessment, Restoration

Project Operating Emissions

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

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

[ ] The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

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

*A negative value indicates GHG reductions

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

Genration of GHG emissions will be limited to travel costs for Trout in the Classroom coordinator travel time to local schools. GHG emissions related to fish passage projects are not directly applicable to the advisory role FRTU will play in design development and construction.

GHG Emissions Summary

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