

Tribal Advisory Committee Projects



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	Maidu Summit Consortium
Name of Primary Contact	Kenneth Holbrook
Name of Secondary Contact	Lorena Gorbet
Mailing Address	P.O. Box 682, Chester, CA, 96020
E-mail	director@maidusummit.org
Phone	530-258-2299
Other Cooperating Agencies / Organizations / Stakeholders	California Department of Fish & Wildlife Lassen National Forest, Almanor Ranger District
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	TAC-2: Big Springs Vegetation Management
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input checked="" type="checkbox"/> Floodplains/Meadows/Waterbodies <input type="checkbox"/> Municipal Services <input checked="" type="checkbox"/> Tribal Advisory Committee <input checked="" type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>Big Springs, near Humbug Valley has become overgrown with unmanaged vegetation. The flow of water has been impeded by the unmitigated growth and work must be done to thoroughly open up this important cold-water spring. The surrounding habitat of Fenn bog and Aspen groves are critically stressed due to poor spring vegetation management. The Maidu Tribe utilizes this site for traditional practices and that use is threatened by continued under-management of the site.</p> <p>The surrounding forest is a high fuels fire risk which further endangers the health of the Spring, and limits the Maidu's traditional uses that would otherwise occur here, such as native food gathering and propagation.</p>
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The Big Springs site is largely public land owned by the U.S.F.S. Staff at the Almanor Ranger District have a "NEPA ready" Aspen Restoration Project that they have been seeking implementation funding for, for some time. The Aspen

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	Restoration Project includes mechanical treatment of the surrounding conifer stands, as well as hand treatment for the immediate area surrounding the Springs. We propose that The Maidu Summit Consortium be able to contract for this work, and that a Traditional Ecological Knowledge (TEK) driven ethno-botany study be performed in conjunction with the Aspen restoration. This would ensure that none of the proposed actions would endanger sensitive cultural resources that occur at this site.
Latitude:	40.1336064
Longitude:	-121.2649196

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

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

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Substantial improvement to the hydrological functions and beneficial uses of this substantial cold-water spring will be accomplished through sustained vegetation traditional Maidu management of this site. Coldwater habitat in the North Fork of the Upper Feather watershed will be enhanced by increase cold-water flows.	~ 2-3 acres of spring area supporting a large cold-water spring aquatic habitat 15 miles of CDFW designated Wild Trout Water is supported by Big Springs 2,000+ acres adjacent meadow that is fed by Big Springs
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	By enhancing the flow of these springs, we improve the wetlands of the adjacent montane meadow, subsequently reducing wildland fire risk through improved meadow hydrology.	
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This is achieved through our collaborative planning for this project with the Almanor Ranger District (USFS) and with	

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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)
		the California Department of Fish and Wildlife.	
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	We want to demonstrate to the DWR the importance of mandating widespread use of TEK springs rehabilitation approaches and techniques for improving summer water flows and water quality. The TEK assessment, rehabilitation, ongoing management and monitoring approach needs to be demonstrated to encourage more widespread employment of TEK in our region.	~ 2-3 acres of spring area supporting a large cold-water spring aquatic habitat 15 miles of CDFW designated Wild Trout Water is supported by Big Springs 2,000+ acres adjacent meadow that is fed by Big Springs
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	We want to demonstrate to the DWR and the SWP contractors cost-effective TEK springs management approaches from both Maidu and downstream beneficiary points of view, and thus, encourage more widespread employment of TEK for enhanced springs management on their vast tracts of USFS land.	~ 2-3 acres of spring area supporting a large cold-water spring aquatic habitat 15 miles of CDFW designated Wild Trout Water is supported by Big Springs 2,000+ acres adjacent meadow that is fed by Big Springs
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This project will bring our group into direct participation with PG&E, other Forest and Watershed stewardship partners and interests such as the FERC #1962 ERC, ensuring that environmental justice for the Maidu People is sustainable over time through “buy in” by potential partners	~ 2-3 acres of spring area supporting a large cold-water spring aquatic habitat 15 miles of CDFW designated Wild Trout Water is supported by Big Springs 2,000+ acres adjacent meadow that is fed by Big Springs

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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)
Address economic challenges of municipal service providers to serve customers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	TEK UFR IRWM Plan General Ben Use Goal - Beneficial uses of water including but not limited to: fish consumption, wildlife habitat, plant and animal species, recreation and the water quality and quantity to support such activities. This includes those uses that support the cultural, spiritual and traditional lifeways of California Indian Tribes, Tribal communities and families.	
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The TAC has proposed cultural beneficial uses that define benefits to water resources such as coldwater habitat and water quality enhancements. (See above.)	
Coordinate management of recharge areas and protect groundwater resources.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Use TEK	
Maximize agricultural, environmental and municipal water use efficiency.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The TAC has proposed cultural beneficial uses that define benefits to water resources such as coldwater habitat and water quality enhancements. Climate change projections for the UFFR watershed predict declines in coldwater in surface water bodies during hotter and longer summers.	
Improve efficiency and	<input type="checkbox"/> Yes		

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> N/A		
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Use TEK	
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	We are partnering with the Mountain Meadows Conservancy, the Feather River Land Trust, the Sierra Institute, Plumas Corp., and Deer Creek Resources, in order to ensure full project planning/implementation objectives are met in a timely manner throughout the life of the grant	

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:		
<p>a. Native American Tribal Communities</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This project directly enhances local tribes in the conservation of important cultural resources such as springs, meadows and forests. An organization representing the Maidu tribal concerns regarding conservation and resource protection will own the land immediately adjacent to the project site. This project will provide the tribe the ability to practice traditional ecology across ownership boundaries, thus

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		promoting cultural practices that could immensely improve UFR watershed management.
b. Disadvantaged Communities¹	<input checked="" type="checkbox"/> N/A	The project site is positioned in the upper watershed, and could directly impact resource enhancement and allocation, for a number of DACs that occur at many places further down the watershed, near the project site but the locations and magnitudes of actual impacts are unknown.
c. Environmental Justice²	<input checked="" type="checkbox"/> N/A	Allowing the local Native tribe the ability to improve our shared resources through direct support for tribal partners employing long-held stewardship techniques that broadly improves ecosystem functioning will have economic and cultural benefits, but specific impacts are unknown.
d. Drought Preparedness	<input checked="" type="checkbox"/> N/A	We enhance the present water supply of the Upper Feather River watershed by opening up these springs and protecting them from contamination of nearby grazing cattle. Specific impacts are unknown.
e. Assist the region in adapting to effects of climate change³	<input checked="" type="checkbox"/> N/A	We assist the issues of climate change in our region by reducing wildfire risk. Specific impacts are unknown.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input checked="" type="checkbox"/> N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input checked="" type="checkbox"/> Yes	Botanical vigor and diversity and wildlife use of improved spring habitat will be encouraged by improved functioning of springs and surrounding vegetation.
<p>¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/) .</p> <p>² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, and sanitation) in an area of racial minorities.</p> <p>³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</p>		

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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"/> N/A	g. Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input checked="" type="checkbox"/> Yes	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input checked="" type="checkbox"/> Yes	j. Planning and implementation of multipurpose flood management programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input checked="" type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<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
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Flood Management		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
System reoperation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Water Quality		
Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

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Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Groundwater remediation/aquifer remediation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pollution prevention	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Enhancing coldwater habitat improves water quality and reduces warm water associated pollution like algae.
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If livestock fencing is necessary it will be installed to protect spring functions and water quality.
Ecosystem restoration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Springs are critical water features for many wildlife species and culturally important plant species.
Forest management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hand treatment of surrounding forest, which is dense with wildfire fuels will reduce wildfire risks and enhance groundwater recharge into springs and meadows.
Land use planning and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Results of this project will directly impact the potential for objectives in the Land Management Plan for the adjacent Humbug Valley, which will be owned by the Maidu Summit Organization by Summer 2016
Recharge area protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sediment management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Watershed management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Integrating forest, meadow, and spring restoration is an important part of watershed management.
People and Water		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Through the Pacific Forest Stewardship process and the FERC # 1962 ERC process, economic incentives are potentially available to help implement this project.
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TEK will be demonstrated and shared with interested visitors and partners.
Water and culture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The Maidu will be able to restore cultural practices and continuity, as they restore aquatic habitat
Water-dependent recreation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Downstream improvements to the coldwater fishery will benefit anglers.
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	185,000	0	0	185,000
b.	Land Purchase/Easement	0	0	0	0
c.	Planning/Design/Engineering / Environmental	60,000	0	0	60,000
d.	Construction/Implementation	100,000	0	0	100,000
e.	Environmental Compliance/Mitigation/Enhancement	25,000	0	0	25,000
f.	Construction Administration	0	0	0	0
g.	Other Costs	35,000	0	0	35,000
h.	Construction/Implementation Contingency	0	0	0	0
i.	Grand Total (Sum rows (a) through (h) for each column)	400,000	0	0	400,000
j.	Can the Project be phased? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide cost breakdown by phases				
		Project Cost	O&M Cost	Description of Phase	
	Phase 1	50,000	40,000	2 year growth cycle	
	Phase 2	50,000	40,000	2 year growth cycle	
	Phase 3	50,000	40,000	2 year growth cycle	
	Phase 4	55,000	55,000	Final veg. man., impact survey	
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).	We will be partnering with the USFS in order to develop a long-term site management plan, predicated on this project work and on related work they are already planning to do for a nearby Aspen stand.			
l.	Has a Cost/Benefit analysis been completed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
m.	Describe what impact there may be if the project is not funded (300 words or less)	The Yellow Creek will not have the increased water supply that will occur as a result of this project, nor will it receive the benefit of decreases to water temperature that this will			

		provide. Currently the Spring produces ground level water temperatures of 48-49°.
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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	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Attempting to receive project design funding to begin the design element, and to begin the compliance process	May 1 st , 2016	July 31 st , 2016
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Provide explanation if more than one project stage is checked as current status					

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>Plumas County General Plan, CDFW Wild Trout Waters designation, Meadow Valley GWMP, Humbug LMP</p>
<p>b. List technical reports and studies supporting the feasibility of this project.</p>	<p>Yellow Creek Summary Report</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>The Maidu Summit Consortium has conducted a multi-year study of the visual impacts to the site, after having implemented a one-time treatment of the site in 2008. It is clear that with sustained vegetation management at the site, over a long period of time, will be necessary for plant communities to return to a more native variety and therefore provide less need for concerted management annually, allowing for a much more ecologically balanced habitat. Along with this concern is our certainty that we will be revitalizing Maidu cultural practices, as they relate to ecosystem, as a direct means of mitigating social problems currently experienced by our tribal community.</p>
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>f. Are you are an Agricultural Water Supplier²?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>g. Is the project related to groundwater?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin.</p>
<p>¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. 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>	



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Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	Maidu Summit Consortium
Name of Primary Contact	Kenneth Holbrook, ED (soon: Mary Adelzadeh)
Name of Secondary Contact	Lorena Gorbet
Mailing Address	P.O. Box 682, Chester, CA 96020
E-mail	director@maidusummit.org (mary@brbna.org)
Phone	530-258-2299
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	TAC-3: Mud Creek Habitat Recovery
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input type="checkbox"/> Municipal Services <input checked="" type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>The site at Mud Creek is an important habitat for a wide variety of edible and medicinal plant species for the Maidu people. It is currently grossly undermanaged and the Maidu Summit wishes to restore and improve this site using Maidu Traditional ecological Knowledge (TEK). Our disadvantaged community lacks sources for traditional food gathering. The Maidu Summit will be granted ownership of this area by PG&E within the next two years along with a comprehensive vegetation management program, critical to long-term recovery of the stressed species found there. Components of the program include: 1) General wetland cleanup and hand treatment of dead and dying woody materials; 2) Willow treatment, coppicing and debris removal; 3) Understory management and thinning; 4) Plant population studies, for community health; 5) Water quality studies, for community health; 6) Monitoring of change to growth patterns, before and after; and 7) Final report of project details and outcomes. Site enhancements predicted for this site include: roughly 200</p>

	acres of recovered critical habitat for special plant species that provide the Maidu People with medicine, traditional food and basketry materials. Improvements to water quality on this site and to the immediate down-stream water users (community of Chester and important bird habitat near Lake Almanor causeway). Attached is a list of the plants we would nurture giving their scientific names, Mountain Maidu names and usages.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Mud Creek parcel is in Section 28, R.7E., T.29N. Mud Creek runs into Lake Almanor on the east side north of the Chester Causeway. It is on the Forest Service dirt road running from Highway 36 to Lake Chance Campground; two miles north of the highway and one mile south of the campground. There is a short side road that runs east along the north side of the creek.
Latitude:	40.335566°N
Longitude:	-121.206774°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.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	General wetlands cleanup and re-vegetation of wetland species and removal of woody debris and garbage in the wetlands.	35 acres wetland springs & creek treated
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Hand treatment of dead and dying woody materials. Fuel reduction in adjacent forest areas.	Over full 200 acres
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Work with Lake Almanor Watershed Group, Greenville & Susanville Rancherias, MCDG, PG&E and USFS.	
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)
Watershed in order to increase water supply, recreational, and environmental benefits to the Region.			
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Encourage volunteers in the caretaking of the springs and creek on the property. Municipal providers may volunteer on the project. Unknown at this time.	35 acres of springs, creek and wetlands
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Property borders FERC licensed land and water from springs and creek flow into Lake Almanor. PG&E may choose to partner on this project. Unknown at this time.	
Address economic challenges of municipal service providers to serve customers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Will result in improved water quality and quantity by restoring wetlands to healthy condition and hydrologic functions.	200 acres treated overall.
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Improve water used to raise healthy traditional N.A. food, medicine and basket plants.	
Coordinate management of recharge areas and protect groundwater resources.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Springs, creek and wetlands restored to health may improve recharge and groundwater resources. Unknown at this time.	35 acres
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Caretaking plants used by Native Americans and water dependent fish and wildlife species will improve downstream water quality to Lake Almanor, thereby improving water and land planning coordination.	
Maximize agricultural, environmental and municipal water use efficiency.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)
Effectively address climate change adaptation and/or mitigation in water resources management.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Will result in healthier bird, animal and plant habitat in the area perhaps improving Almanor reservoir conditions. Unknown at this time.	200 acres treated in total
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Will educate public and agencies of traditional way to steward the land.	
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Result in production of well managed traditional food, medicine and basket plants for family food and medicines.	
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	Work with Stewardship Council on the project design then with consultants to be sure we have adequate technical knowledge to complete project.	

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

IV. PROJECT IMPACTS AND BENEFITS

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

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	<input checked="" type="checkbox"/> Yes	Healthier traditional food, medicine and basket plants used by N.A. community. Employment of N.A. crews to do the project work.
b. Disadvantaged Communities¹	<input checked="" type="checkbox"/> Yes	Will result in cleaner and healthier water into Lake Almanor to advantage of DAC communities around the lake such as Chester.
c. Environmental Justice²	<input checked="" type="checkbox"/> Yes	Improving land that will be owned by a Native American organization. Landlessness for California recognized tribes is one of the most important EJ issue for California tribes across the Sierra Nevada Region.
d. Drought Preparedness	<input checked="" type="checkbox"/> Yes	Wetland rehabilitation will increase the holding of water until later in the year before release into the stream system, benefiting both the creek and downstream Lake Almanor to an unknown extent.
e. Assist the region in adapting to effects of climate change³	<input checked="" type="checkbox"/> Yes	Cleanup around the spring areas using traditional methods will increase available water in the wetland areas.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input checked="" type="checkbox"/> Yes	Cleanup of dead and dying woody materials will result in healthier forest areas surrounding the project.
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input checked="" type="checkbox"/> Yes	The project will validate Traditional Ecological Knowledge (TEK) through monitoring of growth patterns, before and after, as a valid way to caretake the land. Will educate others on the usage of TEK in coordination with conventional scientific data.
<p>¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/).</p> <p>² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.</p>		

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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	g. Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	j. Planning and implementation of multipurpose flood management programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input type="checkbox"/> Yes <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
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Flood Management		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
System reoperation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Water Quality		

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Groundwater remediation/aquifer remediation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pollution prevention	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input checked="" type="checkbox"/> No	Plant studies and monitoring. Raising of traditional plants for family food and medicine needs.
Ecosystem restoration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wetlands management and TEK plant restoration
Forest management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Fuel reduction and removal of dead and dying woody materials
Land use planning and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Project planning and implementation using TEK.
Recharge area protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sediment management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Manage plants along creek banks to prevent erosion.
Watershed management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TEK methods used on all MSC lands within the watershed.
People and Water		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MSC member organizations will participate and benefit from the project.
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will use MSC website and Facebook page plus educational tours to engage the public.
Water and culture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will result in protection of springs, wetlands and Native American sites within the project area.
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 type="checkbox"/> Yes <input checked="" 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	2,000			2,000
b.	Land Purchase/Easement				
c.	Planning/Design/Engineering / Environmental	50,000			50,000
d.	Construction/Implementation				
e.	Environmental Compliance/ Mitigation/Enhancement	120,000			120,000
f.	Construction Administration	3,000			3,000
g.	Other Costs				
h.	Construction/Implementation Contingency	275,000	50,000		325,000
i.	Grand Total (Sum rows (a) through (h) for each column)	450,000	50,000	-0-	500,000
j.	Can the Project be phased? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide cost breakdown by phases				
		Project Cost	O&M Cost	Description of Phase	
	Phase 1	50,000		Planning	
	Phase 2	125,000		Studies, Environmental	
	Phase 3	325,000		Implementation	
	Phase 4		50,000	Monitoring/education	
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).	Covered by Maidu Summit Consortium endowment fund set up from Stewardship Council monies that come with the land deed for this purpose.			
l.	Has a Cost/Benefit analysis been completed?	X No			
m.	Describe what impact there may be if the project is not funded (300 words or less)	Land, plants, water in project area would remain untreated and unhealthy.			
*List all sources of funding. Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).					

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Studies of current conditions of plants & water. Conceptual stage	July 2015	Sept. 2015
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Planning, final cost projection and schedule of work	Sept. 2015	Oct. 2015
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Required Documentation Completed	Oct. 2015	Jan. 2016
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Bids by RFP; contracts awarded	Feb. 2016	Mar. 2016
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Cleanup & debris removal Forest Treatment Final studies/monitoring Education components	April 2016 May 2016 July 2016 Sept. 2016	June 2016 Sept. 2016 On going On going
Provide explanation if more than one project stage is checked as current status					

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>	<ul style="list-style-type: none"> -ABWAC Land Management Plan -Integrated Regional Water Management Plan: Upper Feather River Watershed, California -Lassen National Forest Land and Resource Management Plan -Pacific Forest and Watershed Lands Stewardship Council Land Conservation Plan
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<p>b. List technical reports and studies supporting the feasibility of this project.</p>	<ul style="list-style-type: none"> -Exploring the Role of Traditional Ecological Knowledge in Climate Change Initiatives (USDA) -Traditional Ecological Knowledge (TEK) Resources (CA LCC) -California Dept. of Finance Demographic Reports -Last Chance Creek Fish Data Summary -Natural Infrastructure; Investing in Forested Landscapes for Source Water Protection -Stewardship Council Annual Reports 2005-2013
<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>This parcel of land was first looked at by the Pacific Forest and Watershed Lands Stewardship Council in 2003-2004. Public meetings were held for input from the public to be included in their land conservation plan. The Maidu Summit Group studied this parcel in 2007 and included it in their Land Management Proposal submitted to the Stewardship Council in 2007. They again studied what needed to be done to the land in 2010 and it was included in a land management proposal submitted in 2010 by the Maidu Summit Consortium. This parcel was again considered in 2014 and plans for the future of the parcel were submitted to the Stewardship Council. In January 2015 the Stewardship Council voted to award this parcel of land to the Maidu Summit Consortium. The Maidu Summit expects to receive the final deed to the property within 18-24 months from then.</p> <p>Caretaking of the land will be by using TEK methods as much as possible. We realize that the climate and world has changed within the last 150 years and some more modern methods will be incorporated into the more traditional methods. TEK involves a relationship with all the plants, animals and elements of the land and how the Maidu interact with them. It involves talking to the land and listening to the land as to what it needs and wants. Methods include the use of hand tools</p>

TAC-3: Mud Creek Habitat Recovery

	<p>instead of large equipment and no use at all of chemicals. TEK involves reconnecting the people to the land and having them caretaking and tending the plants and animals. It results in an abundance of healthier plants and more cleaner water.</p> <p>The TEK methods were used by the Maidu Cultural and Development Group on 1500 acres north of Greenville under a 10 year Stewardship Contract with the Plumas National Forest. It was a great success and resulted in showing that TEK can work on a large scale in today's world and climate. The results were in a healthier forest that saw the return of many plants and animals that had been missing for years. The lands that were treated are now more fire safe, protecting the community of Greenville north of town along Highway 89. It includes a meadow where food and medicine plants were replanted, a bear grass area that doubled in size and an oak area where conifers were removed and oaks nurtured; a much more diverse and healthier forest.</p>
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>If yes, please describe.</p> <p>No use of chemicals. Handwork with hand tools instead of large equipment will reduce the GHG emissions for the project.</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>f. Are you are an Agricultural Water Supplier²?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>g. Is the project related to groundwater?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>If yes, please indicate which groundwater basin.</p> <p>Springs on parcel in Lake Almanor Watershed Basin may connect to groundwater. Unknown at this time.</p>
<p>¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.</p> <p>² Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.</p>	



featherriver.org

UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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	Maidu Summit Consortium
Name of Primary Contact	Kenneth Holbrook, Executive Director
Name of Secondary Contact	Lorena Gorbet, Secretary/Treasurer
Mailing Address	P.O. Box 682, Chester, CA 96020
E-mail	director@maidusummit.org
Phone	530-258-2299
Other Cooperating Agencies / Organizations / Stakeholders	USFS Plumas National Forest, Pacific Gas & Electric, Maidu Cultural & Development Group, Greenville Rancheria, Plumas Unified School District
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	TAC-5: Indian Jim River Resource Center
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input type="checkbox"/> Municipal Services <input checked="" type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>The old Indian Jim School site is in critical need of hazardous materials remediation. It contains dangerous levels of lead from paint and asbestos. If flood flows from the North Fork of the Feather River (NFFR) wash on-site pollutants into the NFFR, lead and asbestos pollution may create episodic or cumulative health hazards for sensitive species such as frogs and possibly for downstream water users and area recreationists-especially children. Being in close proximity to annual high-water flow zones which have flooded in the past, legacy pollution from buildings on the Indian Jim site may also create episodic or cumulative hazards for fish populations and their predators in the downstream Feather River Canyon. There have been ongoing efforts to address pollutions concerns on the site. Ten years ago the school district did initial scoping for plans to restore this historic building but</p>

	<p>were prevented from doing so due to the hazardous material removal being too costly. We seek to remediate hazardous materials and to redevelop the buildings and grounds, and thereby reinvigorate the site to its historic use as a public education property. Its new public education potential is as a River Resource Center, as first described in the final hydroelectric relicensing conditions for FERC # 1962. The Greenville Rancheria and other local Maidu are interested in enriching the educational potential of the Indian Jim site by creating Maidu educational materials and events for the site. If the old school buildings are unable to be saved, we would secondarily seek to construct a new building incorporating Maidu design concepts and labor. Through a partnership between the Plumas County School District, the Maidu Summit Consortium, the Greenville Rancheria and other cooperators, the new and clean campus could host natural science and outdoor education programs with a new stage for experiential learning along the River. Students and visitors could be brought to a safe place and directly access Feather River and its rich cultural, historical, recreational and ecological resources for the sake of education in sustainable watershed management. Greenville Rancheria would take the lead in developing a corresponding Maidu History educational component to be used by the schools. They would add a layer of historical interpretation to the center's visitors by use of a kiosk and community engagement activities that would focus on the Maidu People's multi-generational commitment to maintaining healthy rivers and streams, called "TEK". TEK or Traditional Ecological Knowledge is grounded in the ancestral ownership and stewardship of the the site and the surrounding area by the Mountain Maidu Indians. The area contains Maidu burial grounds, mortars and has a well-known Native tribal history. The site was dedicated as a Maidu "allotment" that was donated so that a school for Maidu children could be built. The current building was built by money donated by PG&E to the school district so that there would be a school for the children of their workers living in the Feather River Canyon attend. The land was leased from the Forest Service. This historic patchwork quilt of overlapping uses, ownerships and agreements has immensely complicated pollution abatement due to complex legal ambiguities about legacy pollution clean-up liabilities for potential partners. New progress on "brownfields site " remediation combined with growing awareness of Environmental Justice burdens present new opportunities for the Maidu people and the severely DAC (disadvantaged communities) of the Feather River Canyon. The Maidu community wants to try again to salvage and restore this blighted educational treasure.</p>
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Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The school site is 6.7 miles southwest of Belden in the Feather River Canyon between Highway 70 and the river. It is 1.7 miles northeast of Tobin. There is an old campground directly east of the school. The remediation and reuse planning for the site will be initiated by a joint presentation by the PSUD, the PNF and the Maidu Community to the FERC # 1962 ERC.
Latitude:	39.9484965
Longitude:	-121.3000

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

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

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes	Removal of the hazardous materials so near the river.	
Reduce potential for catastrophic wildland fires in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The Plumas National Forest, Pacific Gas & Electric and the Plumas Unified School District have an interest in the Indian Jim School site.	
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input checked="" type="checkbox"/> Yes	The removal of the hazardous materials in the building will remove the danger of them getting into the river during floods and high water.	
Address economic challenges of municipal service providers to serve customers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The removal of the hazardous materials in the building will remove the danger of them getting into the river during floods and high water.	Approximately 2.6 acres
Address water resources and wastewater needs of DACs and Native Americans.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Coordinate management of recharge areas and protect groundwater resources.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Use of the site for the school district's natural science and outdoor education programs and learn how the Maidu are committed to maintaining healthy rivers and streams using traditional methods to take care of the land.	Approximately 9.5 acres
Maximize agricultural, environmental and municipal water use efficiency.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Effectively address climate change adaptation and/or mitigation in water resources management.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> N/A		
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Educational use of the site for Forest Service local fire information and restoration Efforts as well as usage of the	Approximately 9.5 acres

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)
		site for outdoor recreation such as rafting and kayaking.	
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	MSC will oversee the actual reconstruction of the building and site cleanup. MSC member organizations MCDG and Greenville Rancheria will provide Maidu information. Forest Service will provide fire information and school district and other outdoor education entities will partner on developing and providing the summer and school year outdoor student and visitor education program information.	Approximately 9.5 acres

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:		
<p>a. Native American Tribal Communities</p>	<input type="checkbox"/> N/A	<p>Besides benefiting from the administration of the reconstruction of the facility the Maidu community will use the facility to educate public on Maidu history of the area; show TEK caretaking of the land and waterways and guide people to the future Maidu cultural center at Lake Almanor and activities at the Maidu Nations’ Park in Humbug Valley.</p>

b. Disadvantaged Communities¹	<input checked="" type="checkbox"/> N/A	
c. Environmental Justice²	<input checked="" type="checkbox"/> N/A	Historically this was all Maidu land. It became Indian Allotment land that was donated to become a school for Indian children and then later PG&E donated money to the school district to build a public school on the site as so many of their employees' children in the canyon would attend school there. After the flood of 1986-87 the school was closed and children were bused to Quincy. Recently the Forest Service has approached the Indian community to see if they would again want to do something with the site since it was originally theirs. Some assessment work has been completed by the Plumas National Forest using wildfire recovery funds.
d. Drought Preparedness	<input checked="" type="checkbox"/> N/A	
e. Assist the region in adapting to effects of climate change³	<input type="checkbox"/> N/A	The PNF and local whitewater rafting and river recreation groups are interested in working with the Maidu community to help make the site available for usage by the kayaking and rafting public. Local schools have been involved with educational field and classroom events and intensive youth training in forest recovery with USFS resource professionals within recent fire areas as restoration partners. Educating school groups from Plumas, Butte and surrounding areas on Maidu Indian culture and modern day natural resource management and stewardship.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input checked="" type="checkbox"/> N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input checked="" type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	g. Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	j. Planning and implementation of multipurpose flood management programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input type="checkbox"/> Yes <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
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Flood Management		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
System reoperation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Water Quality		
Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Groundwater remediation/aquifer remediation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Matching water quality to water use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pollution prevention	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Removal of hazardous materials near water
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ecosystem restoration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Forest management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Land use planning and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Use of TEK to restore and caretake the land
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 type="checkbox"/> No	
People and Water		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Employment opportunities for the Native community workers during cleanup and reconstruction and as caretakers and TEK consultants afterwards
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Use of site for educational and informational benefits to PUSD, PNF, PG&E & MSC and visitors and outdoor education entities.
Water and culture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Information on water, fire, power and Maidu history in the Feather River Canyon
Water-dependent recreation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Use for rafting, kayaking, and river recreationists and visitors to the Feather River Canyon, a designated scenic byway by the USFS and CATRANS and Butte and Plumas Counties.
Wastewater/NPDES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Other RMS addressed and explanation:

A Feather River Visitors Center has been a discussion item during 3 hydroelectric relicensing processes. Various proposals have been discussed but the dissection of the Feather River Canyon into discrete license renewal segments has precluded any meaningful evaluation of the Indian Jim site as a valuable recreation facility for the entire Feather River Canyon. See the discussion between Butte County and the FERC.

“The DEA recommends against “[providing] a one-time contribution of seed money to a government agency or non-profit organization for possible development of a visitor center in the Feather River canyon, as [proposed] by PG&E and the Forest Service in its preliminary section 10(a) recommendation no. 29H” and by the County. DEA, p. 224. Staff offers two reasons for this rejection.

First, Staff claim that demand for such a visitor’s center does not exist.

“...most people are on their way to a destination beyond the Feather River canyon and do not see the canyon as a destination in itself. Travelers on the highway may stop to use the restroom and may look at information provided on kiosks, and may take the time to eat a quick meal at a picnic table provided, but there is little need for facilities providing more than that. Providing a Visitor Center would increase the number of visitor opportunities in the area, but is not needed to enhance visits to, or through the Feather River canyon.”

Id., p. 152. We disagree.

The historical record shows that, prior to the construction of PG&E’s projects, the North Fork was a popular destination for fish and camping. In the early 1930s, the canyon was known as a “Wonderland” which had tourist lodges and campgrounds from Oroville to the Sierra Valley. PG&E’s projects have impaired the fisheries and eliminated boating flows. However, the canyon still has the beauty and other features to become a popular destination, if recreational facilities and flows are provided. The visitors center will be the gateway to this destination.”

The essence of the Maidu approach to re-creation and education at the Indian Jim School site in the Feather River Canyon is that all things and places are interconnected by the culture and by a whole and living Feather River as described in the Maidu creation stories. The USFS is a key partner with a holistic river and watershed vision and mission. From the 2009 Storrie Fire Restoration plan:

Lassen/Plumas Storrie Fire 10-Year Restoration Plan

Version 1.0 (corrected)

Feather River Canyon Environmental Education	Convert the unused James Lee School House (on NFS lands) to a public education area with restrooms, group camping, nature trail to the river and interpretive stations. Partners are Plumas Unified School District Outdoor Education Program and others.	PNF	1000	X	2011	8
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VI. PROJECT COST AND FINANCING

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

PROJECT BUDGET					
Project serves a need of a DAC?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Indirectly the Project will provide a positive identity and desperately needed economic stimulus to the severely disadvantaged communities of the Feather River Canyon. Funding Match Waiver request?: <input type="checkbox"/> Yes <input checked="" 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	2,000			2,000
b.	Land Purchase/Easement	5,000			5,000
c.	Planning/Design/Engineering / Environmental	15,000			15,000
d.	Construction/Implementation	125,000			125,000
e.	Environmental Compliance/ Mitigation/Enhancement	50,000			50,000
f.	Construction Administration	3,000			3,000
g.	Other Costs				
h.	Construction/Implementation Contingency	150,000	150,000		300,000
i.	Grand Total (Sum rows (a) through (h) for each column)	350,000	150,000		500,000
j.	Can the Project be phased? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide cost breakdown by phases				
		Project Cost	O&M Cost	Description of Phase	
	Phase 1	20,000		Planning/Studies	
	Phase 2	175,000		Environmental/cleanup	
	Phase 3	300,000		(re)construction	
	Phase 4		5,000	Educational/informational	
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).	Fees for educational service usage and visitor donations			
l.	Has a Cost/Benefit analysis been completed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
m.	Describe what impact there may be if the project is not funded (300 words or less)	Hazardous materials near river would not be removed and be a danger to environment			
*List all sources of funding. Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).					

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Assessment and study of hazardous materials problem	Sept. 2015	Dec. 2015
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Planning/Design	Jan. 2016	June 2016
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Environmental studies and NEPA/CEQA	July 2016	Dec. 2016
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Obtain required permits	Jan. 2017	Mar. 2017
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Contract with specialized Hazardous materials Remediation Crew/ clean up	Mar. 2017	Sept. 2018
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	(re)construct an informational Center	Oct 2018	Aug. 2019
Provide explanation if more than one project stage is checked as current status					

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>Plumas County General Plan -ABWAC Land Management Plan -PNF/LNF Land Management Plans -Pacific Forest and Watershed Lands Stewardship Council Land Conservation Plan Hydroelectric license plans for FERC #1962, #2107,#609, #2105 and #2100</p>
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	<p>licenses -Integrated Regional Water Management Plan: Upper Feather River Watershed, CA</p>
<p>b. List technical reports and studies supporting the feasibility of this project.</p>	<p>-Exploring the Role of Traditional Ecological Knowledge in Climate Change Initiatives (USDA) -Traditional Ecological Knowledge (TEK) Resources (CA LCC) -California Dept. of Finance Demographic Reports -Trends in Wildfire Severity: 1984-2010 in the Sierra Nevada, Modoc Plateau, and Southern Cascades, CA, USA -Natural Infrastructure; Investing in Forested Landscapes for Source Water Protection Stewardship Council Annual Reports 2005-2013</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>The old Indian Jim School site is in critical need of hazardous materials remediation. The site has been found to contain dangerous levels of lead from paint and asbestos, representing a major hazard to healthy fish populations along the Upper Feather River watershed. In 1986-87 the adjoining campground and school site was flooded and the PUSD abandoned using the building as a school. In 1990s the PUSD obtained an estimate of \$90,000 to clean up the hazardous materials. In 2012 the PUSD offered the site to the MCDG. After several evaluations and studies MCDG found the cost of cleanup prevented them from taking on the task. The Maidu Summit decided in 2015 to consider taking on the site, do the cleanup of hazardous materials and turn it into an outdoor educational facility and information kiosk on the Maidu history and current land management practices and USFS information on area fires and restoration efforts. It would also be open to canyon visitors and for recreational purposes, such as an event coordination center for rafting and kayaking groups.</p>

<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If yes, please describe.</p> <p>If the building needs to be tore down and a new facility constructed, green technology would be considered as an alternative to traditional construction.</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>f. Are you are an Agricultural Water Supplier²?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>g. Is the project related to groundwater?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin.</p>
<p>¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.</p> <p>² Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.</p>	



featherriver.org

UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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	Maidu Summit Consortium
Name of Primary Contact	Trina Cunningham
Name of Secondary Contact	Lorena Gorbet
Mailing Address	289 Main Street, Chester, CA 96020
E-mail	maidudance@yahoo.com
Phone	530.228.2299
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	TAC-6: Traditional Ecological Knowledge
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input type="checkbox"/> Municipal Services <input checked="" type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>The Upper Feather River Tribal Review Project provides a mechanism for relevant Upper Feather River (UFR) Tribe(s), the Maidu Summit Consortium and/or Tribal Review Committee to evaluate and provide recommendations to each project submitted to the UFR RWMG to incorporate Traditional Ecological Knowledge (TEK). Project reviewers will be comprised of Tribal Environmental Directors, Tribal Elders, and other persons with knowledge of Traditional Practices and sustainability. Projects list, counties, and locations will be distributed by UFR RWM staff to all contacts on the UFR Tribal Engagement contact list with review deadline and invitation to provide review and comment. Particular emphasis including follow-up phone calls will be made to include relevant Upper Feather River Tribe(s); meaning those Tribes within whose traditional territories of the proposed project.</p> <p>TEK refers to a cumulative body of knowledge, belief, and practice and handed down through generations through</p>

TAC-6: Traditional Ecological Knowledge

	<p>“stories, songs, foods, medicines, and language” that have been shaped by ecological interactions spanning thousands of years. This relationship of living beings (including human) with their traditional groups and with their environment enables consistent best practice decision making in regards to current land management planning by traditional native practitioners.</p> <p>This review process is important to ensure that each proposed project is given the opportunity to hold significant value to Upper Feather River Native Peoples, which each can benefit from Tribal historical knowledge and will be part of a self-sustaining healthy Upper Feather River ecosystem.</p>
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	Integration of Maidu TEK into each project
Latitude:	Upper Feather IRWM region
Longitude:	Upper Feather IRWM region

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

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

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The base of TEK is to achieve optimum health and balance of ecosystems. Integration of TEK into proposals will enable a diverse range of optimal hydrologic function.	The TEK proposal encompasses UFR IRWM projects.
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The overall goal of applied TEK is to restore fire on a landscape scale. A beginning step to meet this goal is through forest thinning and burning projects on a limited scale in forest, meadow, and riparian areas.	The TEK proposal encompasses UFR IRWM projects in forest, meadow, riparian, and areas of human residence.

TAC-6: Traditional Ecological Knowledge

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)
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	This project is based on communication and collaboration with each of the stakeholders in the region to effectively address cultural and ecological benefit to each proposal.	
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	TEK reaches every aspect of water use. TEK can guide decisions regarding the management, operation, and control of SWP facilities affecting aspects of water quality and quantity.	
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	Municipal service water use can be guided by TEK. Improved function of municipal services is vital to improvements in water supply and function from intake and outflow.	
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Tribal people have and plan to continue to be active in FERC relicensing activities.	
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Tribal partnership projects may leverage funding as well as seek further funding for municipal projects.	
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Continue to clarify TEK as beneficial uses of water consistent with the Basin Plan	
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Integrating TEK into regional planning of UFR projects addresses specific needs of DACs as well as the hydrologic vitality of the ancestral	

TAC-6: Traditional Ecological Knowledge

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)
		homelands of Native Americans in the UFR.	
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Recharge areas and groundwater protection are essential to implementation of Traditional Cultural Knowledge. Tribal support and involvement in coordination can benefit the process using knowledge embedded in stories, gathering, and medicinal uses demonstrating water quality and quantity in these areas.	
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Tribal participation will broaden and contribute greatly to the overall planning process.	
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Tribal interests and cultural use support water use efficiency in all aspects of water use.	
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	TEK aspects of resource management including fire reduction, wetland restoration,	
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Ecosystem restoration and integrating TEK values into water use will improve efficiency.	
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Strong partnerships with stakeholders in the UFR will serve to raise public awareness by demonstrating strengths, problems, and solutions. Mechanisms for public outreach may be tours of projects, presentations, media, and K-12 outdoor classroom opportunities	
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Unknown	

TAC-6: Traditional Ecological Knowledge

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)
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	MSC is comprised of multiple organizations, membership of Maidu community, as well as current and future partnerships to administer and implement funding.	

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

IV. PROJECT IMPACTS AND BENEFITS

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

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	<input type="checkbox"/> N/A	This is a Native American led project.
b. Disadvantaged Communities¹	<input type="checkbox"/> N/A	Overlapping area, to be determined in project review partnership opportunities.
c. Environmental Justice²	<input type="checkbox"/> N/A	Access to cultural resources of beneficial use of water and the habitats that support them.
d. Drought Preparedness	<input type="checkbox"/> N/A	TEK applied to ecosystem restoration, forest management and water management will enhance drought preparedness. Initial emphasis is on fire management and floodplain management.
e. Assist the region in adapting to effects of climate change³	<input type="checkbox"/> N/A	TEK evolved with a variable climate over large spans of time.

TAC-6: Traditional Ecological Knowledge

f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input type="checkbox"/> N/A	Unknown
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input type="checkbox"/> N/A	To be determined after climate change workshop.
<p>¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/) .</p> <p>² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.</p> <p>³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</p>		

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

a. Water supply reliability, water conservation, water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	g. Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	h. Watershed protection and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	j. Planning and implementation of multipurpose flood management programs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input type="checkbox"/> Yes <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
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Flood Management		
Flood management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TEK projects will benefit outcomes and options for RMS projects implemented in the region.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	TEK projects will benefit outcomes and options for RMS projects implemented in the region.
System reoperation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Water Quality		
Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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	TEK projects will benefit outcomes and options for RMS projects implemented in the region.
Pollution prevention	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TEK projects will benefit outcomes and options for RMS projects implemented in the region.
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
Ecosystem restoration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
Forest management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
Land use planning and	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems

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Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
management		
Recharge area protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
Sediment management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
Watershed management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Balanced health of regional ecosystems
People and Water		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Potential matching funds
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Engagement of Tribes and communities
Water and culture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	UFR Tribes
Water-dependent recreation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As it relates to cultural beneficial uses
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 Project specific TBD					
Funding Match Waiver request?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Project specific TBD					
	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	TBD/Project	TBD/Project	TBD/Project
b.	Land Purchase/Easement	N/A	TBD/Project	TBD/Project	TBD/Project
c.	Planning/Design/Engineering /Consultation	40,000	TBD/Project	TBD/Project	TBD/Project
d.	Construction/Implementation/Cons	N/A	TBD/Project	TBD/Project	TBD/Project
e.	Environmental Compliance/ Mitigation/Enhancement	60,000	TBD/Project	TBD/Project	TBD/Project
f.	Construction/ Administration	N/A	TBD/Project	TBD/Project	TBD/Project
g.	Other Costs	50,000	TBD/Project	TBD/Project	TBD/Project
h.	Consultation/Implementation Contingency	40,000	TBD/Project	TBD/Project	TBD/Project
i.	Grand Total (Sum rows (a) through (h) for each column)	200,000	TBD/Project	TBD/Project	TBD/Project

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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	150,000	N/A	Assessment
	Phase 2	300,000	TBD	Full partnership
	Phase 3	TBD	TBD	Integration of long term TEK into long term management in the Feather River basin
	Phase 4	TBD	TBD	Integration of long term TEK into long term management in the Feather River basin
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).		Unknown, TBD	
l.	Has a Cost/Benefit analysis been completed?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
m.	Describe what impact there may be if the project is not funded (300 words or less)		Current trends of resource management that is not sustainable will continue without the benefit of time tested applications of TEK. Unique partnerships will not be formed for the benefit of the region.	
<p>*List all sources of funding. Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).</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**.

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific
b. Final Design	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific

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e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	TBD/Project specific	TBD/Project specific	TBD/Project specific
Provide explanation if more than one project stage is checked as current status					

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.).	TBD/Project specific, National Environmental Justice Advisory Council A Federal Advisory Committee to the U.S. Environmental Protection Agency, California Water Plan, Plumas National Forest (in development)
b. List technical reports and studies supporting the feasibility of this project.	TBD/Project specific
c. Concisely describe the scientific basis (e.g. how much research has been conducted) of the proposed project in 300 words or less.	TBD/Project specific
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please describe.
e. Are you an Urban Water Supplier¹?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
f. Are you are an Agricultural Water Supplier²?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
g. Is the project related to groundwater?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin. All DWR B-118 groundwater basins in the region.
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: TAC-6: Traditional Ecological Knowledge

Project applicant: Tribal Advisory Committee (TAC)

GHG Emissions Assessment

Project Construction Emissions

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

- The project requires non-road 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 to invasive species by utilizing Traditional Ecological Knowledge to eradicate such species and implement a plan to replace those with native species that improve the water supply by more efficient use of the land's natural water cycle.

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 by creating more availability of groundwater by reducing water stress for water dependent vegetation, thereby allowing water to sink into groundwater reserves more readily.

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.)

More resilient by reductions in catastrophic wildfires as TEK offers viable solutions to the prevention of wildfires with prescribed burnings and other seasonal brush clearing methods.

More resilient by making more water available for beneficial uses through the use of a TEK review process of each proposed project. Each project will have different needs and will therefore require different resolutions.

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

More resilient by reductions in wildfires as TEK offers viable solutions to the prevention of wildfires with prescribed burnings and other seasonal brush clearing methods. Flooding would be reduced because of this prevention of soil erosion and excessive buildup of soil due to uncontrollable wildfires.

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

More resilient from less erosion and sedimentation caused by wildfires. More resilient to habitat fragmentation by wildfire that is so extensive that large areas of habitats are transformed into non-forest conditions, thereby reducing the natural habitat for native fish and wildlife species that depend on a stable environment to thrive.

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

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

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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 ₂ e
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
Total Emissions			0

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 ₂ e
		0

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 ₂ e
5	24	400	16

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

TAC-6: Traditional Ecological Knowledge

Project Operating Emissions

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
	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
375	-2,363

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

GHG Emissions Summary

Construction and development will generate approximately:	16 MTCO ₂ e
In a given year, operation of the project will result in:	-2,363 MTCO ₂ e