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## UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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

Please provide information in the tables below:

#### I. PROJECT PROPONENT INFORMATION

<b>Agency / Organization</b>	Feather River Resource Conservation District and Sierra Valley Resource Conservation District
<b>Name of Primary Contact</b>	Russell Reid
<b>Name of Secondary Contact</b>	Nils Lunder/Carol Dobbas/Holly Foster
<b>Mailing Address</b>	
<b>E-mail</b>	<a href="mailto:rreid@frc.edu">rreid@frc.edu</a> ; <a href="mailto:lunder.nils@gmail.com">lunder.nils@gmail.com</a> ; <a href="mailto:cjdobbas@yahoo.com">cjdobbas@yahoo.com</a> ; <a href="mailto:holly@robertfosterranch.com">holly@robertfosterranch.com</a>
<b>Phone</b>	(530)283-1147
<b>Other Cooperating Agencies / Organizations / Stakeholders</b>	Plumas Sierra Cattlemen's Association, Plumas-Sierra Farm Bureau, Upper Feather River Watershed Group
<b>Is your agency/organization committed to the project through completion? If not, please explain</b>	Yes.

#### II. GENERAL PROJECT INFORMATION

<b>Project Title</b>	ALS-3: Enhanced Management of Livestock Grazing
<b>Project Category</b>	<input checked="" type="checkbox"/> <b>Agricultural Land Stewardship</b> <input type="checkbox"/> <b>Floodplains/Meadows/Waterbodies</b> <input type="checkbox"/> <b>Municipal Services</b> <input type="checkbox"/> <b>Tribal Advisory Committee</b> <input type="checkbox"/> <b>Uplands/Forest</b>
<b>Project Description</b> (Briefly describe the project, in 300 words or less)	<p>Livestock operations are a significant part of the economic and cultural fabric of the Upper Feather River Watershed. There is an ongoing need to provide technical assistance to working landscape managers and owners to ensure that their operations continue to stay viable, and that improvements to water quality and quantity management can continue to be made.</p> <p>This assistance would augment individual landowner efforts, and collaborative programs already being instituted by other existing organizations, including the Upper Feather River Watershed Group, to further the goals of improving water quality and supply in the Upper Feather River Watershed,</p>

	<p>while improving land stewardship on working landscapes.</p> <p>This project would provide cost-sharing assistance for the following general stewardship practices:</p> <ul style="list-style-type: none"> <li>• Technical assistance and training workshops to develop soil and water quality/conservation management plans for individual operations that defines UFRW commodity-specific water quality management practices, and potentially meets requirements set forth in the Irrigated Lands Regulatory Program (IRLP) to develop Farm Evaluations for water quality management practices, Sediment and Erosion Assessment Reports and Management Plans, Nitrogen Management Plans, as well as Management Practice Verification.</li> <li>• Baseline documentation of existing conditions on working landscapes in the region to identify most critical practices.</li> <li>• Management practices to improve soil health, including but not limited to, grazing management regimes, seeding, etc.</li> <li>• Fencing to support specific grazing management plans designed to improve and increase forages, soil health and water quality</li> <li>• Infrastructure to increase irrigation efficiency and water conservation</li> <li>• Soil moisture monitoring technical assistance</li> <li>• Land leveling and forage development</li> </ul>
<p><b>Project Location Description</b> (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):</p>	<p>Projects would be conducted on working landscapes in Sierra, American and Indian Valleys, with a focus on irrigated lands being impacted by the IRLP.</p>
<p><b>Latitude:</b></p>	
<p><b>Longitude:</b></p>	

**III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED**

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

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification (e.g. acres of streams/wetlands restored or enhanced)</b>
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Improvements to existing working landscape practices will enhance opportunities for water conservation and water quality management, thus benefitting natural hydrologic functions in the region.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
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	Education, training and outreach will be a significant component of this project improving collaboration on a region-wide basis.	Outreach to members of UFRWG who manage approximately 30,000 acres of irrigated lands enrolled in the UFRWG. Outreach would also be targeted to members of other ag organizations, managers, and owners of similar amounts of hay crop acreage and non-irrigated rangeland.
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
environmental benefits to the Region.			
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	The ag community's efforts to enhance water management practices should serve as an example, and potentially set the stage for more collaborative opportunities between different stakeholders, including municipalities.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
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 overriding goal of all phases of this project supports the objective of protecting, restoring, and enhancing both surface and groundwater resources within the ag sector, which in turn will benefit the entire basin.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Address water resources and wastewater needs of DACs and Native Americans.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Much of the UFRW is populated by DACs and Native Americans; enhancement of water management on working landscapes will be mutually beneficial, especially to those members of the community that are directly involved in production agriculture.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Technical assistance will encourage more coordinated management of surface and groundwater resources, thus improving recharge areas and enhancing groundwater management.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
			rangeland.
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Technical assistance will encourage more coordinated management of surface and groundwater resources, as well as land use.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Technical assistance aimed at agricultural operations would have an overriding goal of increasing efficiency and developing management plans for periods of water shortage.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Ongoing education and technical assistance for “on-the-ground” managers will help the region be more resilient to any perceived changes in climate, and/or periods of significant drought.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Technical assistance to improve water supplies, as well as cost-sharing for infrastructure projects that improve water quality and quantity will improve the reliability of future ag water supplies and provide benefits to the entire region.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
Enhance public awareness and understanding of water management issues and needs.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		

<b>Upper Feather River IRWM Objectives:</b>	<b>Will the project address the objective?</b>	<b>Brief explanation of project linkage to selected Objective</b>	<b>Quantification</b> (e.g. acres of streams/wetlands restored or enhanced)
Address economic challenges of agricultural producers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Technical assistance and cost-sharing will provide significant opportunities to assist working landscape managers who manage their businesses on very thin margins. Technical assistance to meet increased regulatory requirements will also offset the economic burdens that these requirements place on agricultural producers.	Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.
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	To help ensure meaningful implementation of projects and the optimum utilization of grant monies, this project will include a component to provide necessary administrative capacity through the local RCDs.	Two regional RCDs and members of the various stakeholder organizations will benefit from added capacity to ensure adequate administration of grant monies. Approximately 30,000 acres of irrigated lands enrolled in the UFRWG, plus similar amount of hay crop acreage and non-irrigated rangeland.

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.

<b>If applicable, describe benefits or impacts of the project with respect to:</b>		
<b>a. Native American Tribal Communities</b>	<input checked="" type="checkbox"/> N/A	
<b>b. Disadvantaged Communities<sup>1</sup></b>	<input checked="" type="checkbox"/> N/A	Much of the UFRW is populated by DACs and Native Americans; enhancement of water management on working landscapes will be mutually beneficial, especially to those members of the community that are directly involved in production agriculture.
<b>c. Environmental Justice<sup>2</sup></b>	<input type="checkbox"/> N/A	Assistance provided through this project would be accessible to any qualified individual that is engaged in agricultural production or manages working landscapes.
<b>d. Drought Preparedness</b>	<input type="checkbox"/> N/A	Ongoing education and technical assistance for “on-the-ground” managers will help the region be more resilient to any perceived changes in climate, and/or periods of significant drought.
<b>e. Assist the region in adapting to effects of climate change<sup>3</sup></b>	<input type="checkbox"/> N/A	Ongoing education and technical assistance for “on-the-ground” managers will help the region be more resilient to any perceived changes in climate, and/or periods of significant drought.
<b>f. Generation or reduction of greenhouse gas emissions (e.g. green technology)</b>	<input type="checkbox"/> N/A	Working landscapes provide significant capacity for carbon sequestration.
<b>g. Other expected impacts or benefits that are not already mentioned elsewhere</b>	<input type="checkbox"/> N/A	Enhancement of the working landscapes that make up a significant percentage of the UFR Watershed have multiple public benefits, including improving the largest economic driver in the region.

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

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

<sup>3</sup> Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

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 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 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		

**V. RESOURCE MANAGEMENT STRATEGIES**

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
<b>Reduce Water Demand</b>		
Agricultural Water Use Efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Technical assistance and cost-share projects are largely aimed at improving irrigation delivery efficiency, both from surface and groundwater sources.
Urban water use efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Improve Flood Management</b>		
Flood management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improving the region’s water storage capacity in the form of existing stock/irrigation ponds, drainage systems, etc. will improve opportunities for flood management, but also increase opportunities to capture storm water for future use.



Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
<b>Improve Operational Efficiency and Transfers</b>		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improving existing irrigation infrastructure to be more efficient and encouraging more advanced systems for new installations will improve water conveyance throughout the region.
System reoperation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Improving existing irrigation infrastructure to be more efficient and encouraging more advanced systems for new installations will improve water conveyance throughout the region.
Water transfers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water transfers within a watershed or watermaster service area may be appropriate in some instances, and <b>improving existing irrigation infrastructure to be more efficient and encouraging more advanced systems for new installations</b> will improve water conveyance throughout the region. Infrastructure developed through this proposal would be only within the region, and would not be for the purpose of transferring water outside of the watershed.
<b>Increase Water Supply</b>		
Conjunctive management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Ag operators already focus on conjunctive management as a means to optimize existing water supplies. Technical assistance provided through this project would enhance on-site managers' ability to use water supplies as effectively as possible.
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Not applicable.
Municipal recycled water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	This project would encourage the use of municipal recycled water for irrigation in areas where urban/ag interfaces exist.
Surface storage – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Small-scale water storage in the form of stock and irrigation ponds</b> , will provide a means of increasing surface storage, provide environmental benefits, and flood management opportunities during non-irrigation periods.
<b>Improve Water Quality</b>		
Drinking water treatment and distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Not 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	

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Pollution prevention	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Enhancing irrigation water delivery systems in the form of pipeline and other infrastructure will mitigate potential water quality issues that can be present in livestock and agricultural operations.
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Much of the region's existing irrigated agricultural landscapes already provide an area that serves as a means to manage winter storm water runoff. Enhancement of existing storage capacity could provide for more effective use of this runoff during periods of water shortages.
<b>Practice Resource Stewardship</b>		
Agricultural land stewardship	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The overriding goal of this project is to enhance and improve agricultural stewardship by providing resources that otherwise may not be available or economically feasible for agricultural producers in the region.
Ecosystem restoration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Much of the area's habitat values are dependent on working landscapes, and the technical assistance and potential for infrastructure cost-sharing would enhance those existing mutual benefits.
Forest management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	This project does not focus on forest areas in the UFR Watershed.
Land use planning and management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Technical assistance will provide for more opportunity to ensure land use planning and water management go hand-in-hand.
Recharge area protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Irrigation water applied during production season provides a recharge return system opportunity within the landscape.
Sediment management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	While not considered to be a significant issue, ongoing technical assistance provided to landscape managers will help ensure ongoing improvement.
Watershed management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Technical assistance provided on a region-wide basis will have a broader benefit to the entire watershed.
<b>People and Water</b>		
Economic incentives	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The overriding goal of this project is to enhance and improve agricultural stewardship by providing resources that otherwise may not be available or economically feasible for agricultural

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		producers in the region.
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Technical assistance and educational programs will involve stakeholders at both a local and regional level, improving overall management within the region.
Water and culture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Production agricultural has been a significant cultural component to the area's settlement and development. Working landscapes represent the largest economic driver in the region, and are a large part of the cultural landscape of the region.
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 type="checkbox"/> Yes <input checked="" 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	\$200,000			\$200,000
b.	Land Purchase/Easement	n/a	n/a	n/a	n/a
c.	Planning/Design/Engineering / Environmental Documentation	\$300,000	Private landowner matching	Other ag cost-share (NRCS, etc.)	\$300,000
d.	Construction/Implementation	\$800,000	Private landowner matching	Other ag cost-share (NRCS, etc.)	\$800,000
e.	Environmental Compliance/Mitigation/Enhancement	\$200,000	Private landowner matching	Other ag cost-share (NRCS, etc.)	\$200,000

ALS-3: Enhanced Management of Livestock Grazing

f.	<b>Construction Administration</b>	TBD	Private landowner matching	Other ag cost-share (NRCS, etc.)	
g.	<b>Other Costs</b>		Private landowner matching	Other ag cost-share (NRCS, etc.)	
h.	<b>Construction/Implementation Contingency</b>	TBD	Private landowner matching	Other ag cost-share (NRCS, etc.)	
i.	<b>Grand Total (Sum rows (a) through (h) for each column)</b>	\$1,500,000			\$1,500,000
j.	<b>Can the Project be phased?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide cost breakdown by phases				
		<b>Project Cost</b>	<b>O&amp;M Cost</b>	<b>Description of Phase</b>	
	<b>Phase 1</b>	\$150,000		Program Development Outreach to landowners. Workshops/TA. Seeking match funding. (2 years)	
	<b>Phase 2</b>	\$300,000		Continued project development. Additional landowner outreach. Hiring consultants. Landowner Application Process and contracting. CEQA. (1 year)	
	<b>Phase 3</b>	\$950,000		Hiring contractors. Project coordination. Outreach to landowners. Project Development. CEQA. Permitting. Project Implementation. (estimated 8 years)	
	<b>Phase 4</b>		\$100,000	Monitoring & Evaluation	
k.	<b>Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).</b>	Ongoing management of projects would be largely the responsibility of the landowners and managers once the projects/plans were completed. Ongoing technical assistance provided by RCDs will be provided through initial capacity building funds secured in this proposal and future capacity building efforts.			
l.	<b>Has a Cost/Benefit analysis been completed?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
m.	<b>Describe what impact there may be if the project is not funded (300 words or less)</b>	Agricultural and working landscapes represent a significant percentage of the UFRW area, and thus ongoing improvement of their management by private landowners and managers is critical to the entire region, both culturally and economically. Some aspects of			

ALS-3: Enhanced Management of Livestock Grazing

		<p>this project would be implemented to help landowners meet ongoing management plan requirements set forth in the Irrigated Lands Regulatory Program. Developing the necessary management plans represent a significant burden for agricultural producers that already operate on small economic margins. If these criteria are not met, it means that individual operations will be in non-compliance, representing a significant issue for the region and the ongoing operation of existing ag enterprises. As other educational and cost-share resources (U.C. Cooperative Extension, NRCS, Resource Conservation Districts, etc.) for ongoing working landscape enhancement become less available, it will be important to find alternative means to ensure the sustainability of the region’s agricultural operations. If this project is not funded, it could be extremely detrimental for the long-term viability of ag operations and ongoing improvement in water management on working landscapes that are extremely important to the region.</p>
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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)
<b>a. Assessment and Evaluation</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Program Development Outreach to landowners. Workshops/TA. Seeking match funding.	2016	2018
<b>b. Final Design</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Hiring consultants. Landowner Application Process and contracting.	2019	2027

ALS-3: Enhanced Management of Livestock Grazing

<b>c. Environmental Documentation (CEQA / NEPA)</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	CEQA. (Note some aspects of the project related to technical assistance do not require environmental documentation, permitting or construction.)	2019	2027
<b>d. Permitting</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		2019	2027
<b>e. Construction Contracting</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Hiring contractors.	2019	2027
<b>f. Construction Implementation</b>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Project coordination. Outreach to landowners. Project Development. Project Implementation.	2019	2027
<b>Provide explanation if more than one project stage is checked as current status</b>			Some aspects of the project related to technical assistance do not require environmental documentation, permitting or construction.		

**IX. PROJECT TECHNICAL FEASIBILITY**

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

<b>a. List the adopted planning documents the proposed project is consistent with or supported by</b> (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).	General Plan, UFRWG Annual Report, Irrigated Lands Regulatory Program
<b>b. List technical reports and studies supporting the feasibility of this project.</b>	U.C. Cooperative Extension (multiple studies), Ag Commissioner’s Report, California Cattlemen’s Association Watershed Resource Guide
<b>c. Concisely describe the scientific basis</b> (e.g. how much research has been conducted) <b>of the proposed project in 300 words or less.</b>	

ALS-3: Enhanced Management of Livestock Grazing

<p><b>d. Does the project implement green technology</b> (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.                  Solar and wind energy may be utilized in infrastructure cost-share projects.</p>
<p><b>e. Are you an Urban Water Supplier<sup>1</sup>?</b></p>	<p><input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No   <input type="checkbox"/> N/A</p>
<p><b>f. Are you are an Agricultural Water Supplier<sup>2</sup>?</b></p>	<p><input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No   <input type="checkbox"/> N/A</p>
<p><b>g. Is the project related to groundwater?</b></p>	<p><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/A                  If yes, please indicate which groundwater basin. (Sierra, American and Indian Valleys)</p>
<p><sup>1</sup> Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.  <sup>2</sup> Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.</p>	

## Climate Change – Project Assessment Checklist

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

Name of project: ALS-3: Enhanced Management of Livestock Grazing

Project applicant: Feather River RCD and Sierra Valley RCD

## GHG Emissions Assessment

### Project Construction Emissions

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

- The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- The project requires materials to be transported to the project site.
- The project requires workers to commute to the project site.
- The project is expected to generate GHG emissions for other reasons.
- The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

### Operating Emissions

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

- The project requires energy to operate.
- The project will generate electricity.
- The project will proactively manage forests to reduce wildfire risk.
- The project will affect wetland acreage.
- The project will include new trees.
- Project operations are expected to generate or reduce GHG emissions for other reasons.



## Adaptation & Resiliency Assessment

### Water Supply

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

- Not applicable
- Reduced snowmelt
- Unmet local water needs (drought)
- Increased invasive species

The project has the potential to improve the conditions of working lands in the upper Feather River Watershed. Improved conditions on these lands could increase ground cover, could increase water infiltration and water retention during run-off events. As the soils are restored on participating working lands, they will have an increased ability to absorb GHG and sequester Carbon.

### 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

The project could increase resiliency by increasing the biological integrity of the soils on participating working lands. This could lead to more resilient crops that are less reliant on irrigation water to thrive.

### 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.)

Working lands that participate in this project may respond to management techniques in such a way that improves water infiltration and water retention. These characteristics could reduce eutrophication in downstream water bodies.

### 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

Participating properties may be less prone to the effects of flooding and erosion as soil permeability is improved and ground cover is increased.

### 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

Participating properties may exhibit positive trends that benefit climate sensitive flora and fauna. They may exhibit increased productivity which will improve economic activities for local producers. Those properties may exhibit low rates of erosion and sedimentation and improve habitat for threatened and endangered species.

### 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

Reduced erosion of the lands in the upper watershed will benefit downstream hydro power operations.

ALS-3 : Enhanced Management of Livestock Grazing

**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 <sub>2</sub> e
Trenchers	1	50	11
Tractors/Loaders/Bac khoes	1	50	14
Excavators	1	50	22
			0
			0
			0
			0
			0
			0
			0
<b>Total Emissions</b>			<b>46</b>

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

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO <sub>2</sub> e
50	50	<b>4</b>

The project requires workers to commute to the project site. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total MTCO <sub>2</sub> e
2	100	100	<b>7</b>

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

Vehicle travel for staff associated with project development and providing TA.

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

ALS-3 : Enhanced Management of Livestock Grazing

**Project Operating Emissions**

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO <sub>2</sub> e
	kWh (Electricity)	<b>0</b>
	Therm (Natural Gas)	<b>0</b>

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total MTCO <sub>2</sub> e
	<b>0</b>

\*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO <sub>2</sub> e
200	<b>-866</b>

\*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO <sub>2</sub> e
0	<b>0</b>

\*A negative value indicates GHG reductions

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

More efficient cropping patterns, increased yield will sequester carbon.  
Healthier range may reduce fertilizer use.

**GHG Emissions Summary**

Construction and development will generate approximately:	57 MTCO <sub>2</sub> e
In a given year, operation of the project will result in:	-866 MTCO <sub>2</sub> e