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	Sierra Institute for Community and Environment/ Lake Almanor Watershed Group
Name of Primary Contact	Charles Plopper
Name of Secondary Contact	Aaron Seandel/ Courtney Gomola
Mailing Address	P.O Box 395, Chester, CA 96020
E-mail	cgplopper@ucdavis.edu
Phone	530-284-7414
Other Cooperating Agencies / Organizations / Stakeholders	Mountain Meadows Conservancy (MMC), Maidu Summit Consortium (MSC), USDA Natural Resources Conservation Services (NRCS)
Is your agency/organization committed to the project through completion? If not, please explain	Yes

II. GENERAL PROJECT INFORMATION

Project Title	FMW-11: Lake Almanor Basin Water Quality Improvement Plan
Project Category	☐ **Agricultural Land Stewardship** ☒ **Floodplains/Meadows/Waterbodies** ☐ **Municipal Services** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	Goal: Protect, maintain and improve water quality in the Lake Almanor Basin. The Lake Almanor Watershed Group (LAWG, formerly the Almanor Basin Watershed Advisory Committee) has addressed water quality, land use, and critical habitat issues in the Lake Almanor Basin since 2004. A key aspect of this work has been monitoring water quality. The work proposed here is to address the contribution of upstream sources and run-off from roads, golf courses, lawns and other surfaces around homes and developed areas by 1) exploring current practices used in other lake side communities to minimize impact of activity, 2) develop recommendations to address modification of current practices. Although past work

	has successfully been implemented, and more public support garnered for watershed stewardship activities, there is an imminent need for large-scale reductions in non-point sources of nutrient deposition into the Lake. This project will build upon established community connections and previous research to develop action plans to reduce erosion, sedimentation and contaminated nutrient run-off and deposition into the Lake Almanor.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The Almanor Basin Watershed including Mountain Meadows, Walker Lake and its contributing creeks, Hamilton Branch, Lake Almanor, Butt Lake, Last Chance Creek, Bailey Creek and the North Fork of the Feather River above Lake Almanor and its tributaries.
Latitude:	40^{o} 07' to 40^{o} 30' N
Longitude:	120^{o} 48' to 121^{o} 30' 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.	☐ Yes ☒ N/A		
Reduce potential for catastrophic wildland fires in the Region.	☐ Yes ☒ N/A		
Build communication and collaboration among water resources stakeholders in the Region.	☒ Yes ☐ N/A	Once the project is funded, all relevant stakeholders will be brought together to assist in developing the assessment plan, identifying other stakeholders, identifying potential contractors, and insuring all relevant factors that could compromise water quality are included in the assessment. As the assessments progress, all stakeholders, including DWR,	Involvement of at least 6 agencies (USFS, NRCS, DWR, CPUD,WPUD, HBPUD) and 7 entities (PG&E, SPI, CPI, West Almanor CC, Pennisula CC, MMC, MSC) with concerns regarding operations that effect water quality in at least 2

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)
		will also be involved in the evaluation of the data and the identification of potential solutions and planning for mitigation.	meetings per year for planning and evaluation.
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.	☒ Yes ☐ N/A	Once the project is funded, all relevant stakeholders will be brought together to assist in developing the assessment plan, identifying other stakeholders, identifying potential contractors, and insuring all relevant factors that could compromise water quality are included in the assessment. As the assessments progress, all stakeholders, including DWR, will also be involved in the evaluation of the data and the identification of potential solutions and planning for mitigation.	At least 2 meetings per year that include other agencies and entities with concerns regarding operations that effect water quality. (See above)
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	☒ Yes ☐ N/A	Once the project is funded, all relevant stakeholders will be brought together to assist in developing the assessment plan, identifying other stakeholders, identifying potential contractors, and insuring all relevant factors that could compromise water quality are included in the assessment. As the assessments progress, all stakeholders, including DWR, will also be involved in the evaluation of the data and the identification of potential solutions and planning for mitigation.	At least 2 meetings per year that include other agencies and entities with concerns regarding operations that effect water quality. (See above)
Continue to actively engage in FERC relicensing of hydroelectric facilities in the	☒ Yes ☐ N/A	Members of LAWG have been actively engaged in the FERC relicensing of Lake Almanor	

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Region.		since it started. Despite detailed documentation provided by LAWG demonstrating recent increases in nutrients and blue-green algae in Lake Almanor, this issue was not addressed in the EIR recently released for FERC 2105.	
Address economic challenges of municipal service providers to serve customers.	☐ Yes ☒ N/A		
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	☐ Yes ☒ N/A		
Address water resources and wastewater needs of DACs and Native Americans.	☐ **Yes** ☒ N/A		
Coordinate management of recharge areas and protect groundwater resources.	☐ Yes ☒ N/A		
Improve coordination of land use and water resources planning.	☒ Yes ☐ N/A	Assessment will identify non-point source pollution to Lake Almanor which may result in: a) different management of fertilizer use around the lake, b) new management approaches for service and logging road maintenance adjacent to upstream water sources, c) altered management of waste handing procedures, d) different watering practices for golf course and other large areas of lawn, e) different management practices for handing storm water runoff.	
Maximize agricultural, environmental and municipal water use efficiency.	☐ Yes ☒ 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.	☒ Yes ☐ N/A	The effects of nutrient deposition will be exacerbated by warmer temperatures and drier years. Therefore, identifying sources of nutrient deposition and avenues for mitigating these impacts will help combat the effects of climate change on these variables.	
Improve efficiency and reliability of water supply and other water-related infrastructure.	☒ Yes ☒ N/A		
Enhance public awareness and understanding of water management issues and needs.	☒ Yes ☐ N/A	The information and planning process, as well as , the finished plans and operations will be incorporated into the educational program being developed by another proposal from SI/LAWG/MMC/MSC.	
Address economic challenges of agricultural producers.	☐ Yes ☒ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	☒ Yes ☐ N/A	SI and LAWG currently have a Watershed Coordinator who works closely with members and DWR on the current assessment. This person's duties will be expanded to include management of the proposed 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 no leave a blank cell.** Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	☐ N/A	The projects will identify potential areas for mitigation that were historically used by native American people as foraging grounds for food and basket making materials.
b. Disadvantaged Communities[1]	☐ N/A	The projects will be located adjacent to the disadvantaged communities of Chester, Canyon Dam, Prattville and Westwood. By identifying areas needing mitigation and strategies for protecting and improving the quality of the water in the entire Basin, the project has the potential to increase tourism (hiking, biking, birding, boating, hunting and fishing). These activities draw visitors into these communities which could improve conditions for local businesses. As has been demonstrated by the experience of communities surrounding Clear Lake, poor water quality will negatively impact the already struggling water-based tourism economies of Almanor Basin communities.
c. Environmental Justice[2]	☒ N/A	
d. Drought Preparedness	☐ N/A	By identifying areas needing mitigation and strategies for protecting and improving the quality of the water in the entire Basin, the project has the potential to enhance and protect important tributaries and shoreline habitats that will be critical for improved water retention as the region prepares for drought.
e. Assist the region in adapting to effects of climate change[3]	☐ N/A	The effects of nutrient and sediment deposition will be exacerbated by warmer temperatures and drier years. Therefore, identifying sources of nutrient deposition and avenues for mitigating these impacts will help combat the effects of climate change on these variables. This project will identify

		and put in place preemptive measures.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	☒ N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	☒ N/A	

[1] A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/) .
[2] Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.
[3] Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

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

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

V. RESOURCE MANAGEMENT STRATEGIES

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

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	☐ Yes ☒ No	
Urban water use efficiency	☐ Yes ☒ No	
Improve Flood Management		
Flood management	☒ Yes ☐ No	By identifying and mitigating for sources of excessive runoff, potential excess water flow during adverse inclement weather conditions will be controlled.
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	☐ Yes ☒ No	
System reoperation	☐ Yes ☒ No	
Water transfers	☐ Yes ☒ No	
Increase Water Supply		
Conjunctive management	☐ Yes ☐ No	
Precipitation Enhancement	☐ Yes ☐ No	
Municipal recycled water	☐ Yes ☐ No	
Surface storage – regional/local	☐ Yes ☐ No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ☒ No	
Groundwater remediation/aquifer remediation	☐ Yes ☒ No	
Matching water quality to water use	☒ Yes ☐ No	Currently most of water in Lake Almanor is committed to domestic use in Los Angeles and the SF Bay Area. Identification of problem areas will promote mitigation activities that will improve current water quality for both consumption locally and for downstream water rights holders and prevent further deterioration of water quality.
Pollution prevention	☒ Yes ☐ No	Currently most of water in Lake Almanor is committed to domestic use in Los Angeles and the SF Bay Area. Identification of problem areas, including at/near the numerous boat ramps and marinas, will promote mitigation activities that will improve current water quality for both consumption locally and for downstream

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		water rights holders and prevent further deterioration of water quality.
Salt and salinity management	☐ Yes ☒ No	
Urban storm water runoff management	☐ Yes ☒ No	
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ☒ No	
Ecosystem restoration	☐ Yes ☒ No	
Forest management	☐ Yes ☒ No	
Land use planning and management	☐ Yes ☒ No	
Recharge area protection	☐ Yes ☒ No	
Sediment management	☐ Yes ☒ No	
Watershed management	☒ Yes ☐ No	The proposed assessment project will identify mediate runoff, sedimentation and erosion issues in the Almanor Basin, will provide local land use decision-makers with access to watershed information that will promote improvement of maintenance procedures and facilitate local decision-making regarding watershed functions to enhance water quality.
People and Water		
Economic incentives	☐ Yes ☒ No	
Outreach and engagement	☒ Yes ☐ No	As the assessment of the factors compromising water quality are identified all stakeholders, including DWR will be involved in the identification of potential solutions, planning for mitigation and participation in implementation of mitigation projects. The information and planning process, as well as the finished plans and operations will be incorporated into the educational program being developed by another proposal from SI/LAWG/MMC/MSC.
Water and culture	☐ Yes ☒ No	
Water-dependent recreation	☒ Yes ☐ No	The Lake Almanor Basin offers unparalleled recreation opportunities and is a critical economic driver for Plumas County. The watershed provides millions of gallons of clean drinking water for downstream users along with critical habitat for myriad fish and wildlife communities both throughout the Basin and beyond. Although historically considered to be in good condition,

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		increased anthropogenic influences associated with development and recreation have exacerbated deteriorating water quality in Lake Almanor, which, based on current monitoring, includes drastically increased nutrients, temperatures, and blue-green algae and decreased dissolved oxygen. This project will define the nature and sources of the contaminants, identify potential solutions, develop plans for mitigation and implement mitigation projects to maintain and reestablishment of a more healthy ecosystem for the Almanor Basin Watershed.
Wastewater/NPDES	☐ Yes ☒ No	

Other RMS addressed and explanation:

VI. PROJECT COST AND FINANCING

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

PROJECT BUDGET

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

	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	**Direct Project Administration**	$125,000			
b.	**Land Purchase/Easement**	$-0-			
c.	**Planning/Design/Engineering / Environmental**	$375,000			
d.	**Other Costs**	$10,000			
e.					
f.					
g.					
h.					
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$510,000			

j.	**Can the Project be phased?** ☒ Yes ☐ No If **yes**, provide cost breakdown by phases			
		Project Cost	**O&M Cost**	**Description of Phase**
	Phase 1	$125,000		Identify and hire contract agencies to design study plans and begin studies of current practices that negatively impact sedimentation, erosion, runoff and lake contamination by fertilizer use. Year 01
	Phase 2	$425,000		Continue and complete studies of current practices that negatively impact sedimentation, erosion, runoff and lake contamination by fertilizer use. Develop and complete plans to implement strategies for altering practices that negatively impact sedimentation, erosion, stormwater runoff and fertilizer use, including environmental compliance.. Years 02 & 03
	Phase 3			
	Phase 4			
k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**		This project will identify sources of runoff effecting water quality and provide the detailed data for local decision makers to alter current practices. Changes that will require funds beyond those already being used will be generated by applications for additional funds to support specific projects needed to change infrastructure or management practices.	
l.	**Has a Cost/Benefit analysis been completed?**		☐ Yes ☒ No	
m.	**Describe what impact there may be if the project is not funded (300 words or less)**		The Lake Almanor Basin offers unparalleled recreation opportunities and is a critical economic driver for Plumas County. The watershed provides millions of gallons of clean drinking water for downstream users along with critical habitat for myriad fish and wildlife communities both throughout the Basin and beyond. Although historically considered to be in good condition, increased anthropogenic influences associated with development and recreation have exacerbated deteriorating water quality in Lake Almanor, which, based on current monitoring, includes drastically increased	

		nutrients, temperatures, and blue-green algae and decreased dissolved oxygen. This proposal is for the first stages of a comprehensive program to define and minimize the impacts of erosion, sedimentation, and contaminated runoff from either upstream sources or urban run-off, especially stormwater, from roads, golf courses, lawns and other surfaces around homes and developed areas surrounding the lake. Without such a proactive program, such as proposed here, the water quality of Lake Almanor will continue to deteriorate at an increasingly rapid rate as the drought continues.

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

VIII. PROJECT STATUS AND SCHEDULE

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

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	☒	☐ Yes ☒ No ☐ N/A		As soon as funding is awarded the program will begin by expanding the existing minimal testing program and the hiring of contract agencies.	TBD
b. Final Design	☐	☐ Yes ☒ No ☐ N/A			
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ☒ No ☐ N/A			
d. Permitting	☐	☐ Yes ☒ No ☐ N/A			
e. Construction Contracting	☐	☐ Yes ☒ No			

		☐ N/A			
f. Construction Implementation	☐	☐ Yes ☒ No ☐ 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.

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.).	Lake Almanor Watershed Management Plan (2009) prepared by Sierra Institute for Community and Environment
b. List technical reports and studies supporting the feasibility of this project.	Lake Almanor Water Quality Report 2014 (2015) prepared by Dr. Gina Johnston (CSU-Chico) and Scott McReynolds (CA-DWR) for the Plumas County Flood Control and Water Conservation District and Lake Almanor Watershed Advisory Group. Lake Almanor Watershed Assessment Report (2006) prepared by CH2MHill and Earthworks Restoration, Inc. for the Plumas County Flood Control and Water Conservation District. Lake Almanor Stakeholder Report: Key issues in the Basin (2004) prepared by Sierra Institute for Community and Environment.
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	The quality of Lake Almanor has been assessed for a number of years. When economic constraints prevented DWR and Plumas County from continuing annual assessments, LAWG and its predecessor, Almanor Basin Watershed Advisory Committee (ABWAC) raised private funds to continue monitoring the lake. These annual reports have clearly shown deterioration of water quality in recent years, including

	increases in temperature, dissolved nutrients, blue-green algae and other biologicals and decreased in dissolved oxygen. Due to lack of funding a comprehensive assessment of the lake or its tributaries has not been possible to identify the sources contributing to the deterioration in quality. The report for 2014 is referenced above and the others are available on the website.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	☐ Yes ☒ No ☐ N/A If yes, please describe.
e. Are you an Urban Water Supplier[1]?	☐ Yes ☒ No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes ☒ No ☐ N/A
g. Is the project related to groundwater?	☐ Yes ☒ No ☐ N/A If yes, please indicate which groundwater basin.

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

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

Climate Change – Project Assessment Checklist

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

Name of project: FMW-11: Lake Almanor Basin Water Quality Improvement Program

Project applicant: Sierra Institute/ LAWG

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:

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

Water Demand

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

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

Water Quality

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

X☐ 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.)

This is a monitoring project to identify and quantify degradation in the quality of water in the Basin and provide information for decision making regarding mitigation projects if they become necessary.

Flooding

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

X☐ Not applicable

☐ Aging critical flood protection

☐ Wildfires

☐ Critical infrastructure in a floodplain

☐ Insufficient flood control facilities

Ecosystem and Habitat

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

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

Hydropower

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

X☐ Not applicable
☐ Reduced hydropower output

FMW-11: Lake Almanor Basin Water Quality Improvement Plan

GHG Emissions Analysis

Project Construction Emissions

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

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

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

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

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

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

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

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

FMW-11: Lake Almanor Basin Water Quality Improvement Plan

Project Operating Emissions

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

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

[ ] The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres Protected from Wildfire	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

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

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

*A negative value indicates GHG reductions

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

FMW11 is an assessment project only, and is not expected to generate significant greenhouse gases for duration of project.

GHG Emissions Summary

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