



NORTH COAST RESOURCE PARTNERSHIP 2018/19 IRWM Project Application

The North Coast Resource Partnership (NCRP) 2018/19 Project Application Instructions and additional information can be found at the NCRP 2018/19 Project Solicitation webpage (<https://northcoastresourcepartnership.org/proposition-1-irwm-round-1-implementation-funding-solicitation/>). Please fill out grey text boxes and select all the check boxes that apply to the project. Application responses should be clear, brief and succinct.

Project Applications will be accepted until 5:00 pm, March 8, 2019 March 15, 2019. It is important to save the application file with a distinct file name that references the project name. When the application is complete, please email to kgledhill@westcoastwatershed.com

If you have questions, need additional information or proposal development assistance please contact:

- Katherine Gledhill at kgledhill@westcoastwatershed.com or 707.795.1235
- Tribal Projects: Sherri Norris, NCRP Tribal Coordinator at sherri@cieaweb.org or 510.848.2043

Project Name: Mendocino Woodlands State Park Sediment Reduction Project

A. ORGANIZATION INFORMATION

1. Organization Name: Mendocino Woodlands Camp Association

2. Contact Name/Title

Name: Elizabeth Cameron

Title: Development Director

Email: development@mendocinowoodlands.org

Phone Number (include area code): 909 800 4271

3. Organization Address (City, County, State, Zip Code):

Physical: 39350 Little Lake Road, Mendocino, CA 95460

Mailing: PO Box 267, Mendocino, CA 95460

4. Organization Type

- ☐ Public agency
☒ Non-profit organization
☐ Public utility
☐ Federally recognized Indian Tribe
☐ California State Indian Tribe listed on the Native American Heritage Commission's California Tribal Consultation List
☐ Mutual water company
☐ Other:

5. Authorized Representative (if different from the contact name)

Name:

Title:

Email:

Phone Number (include area code):

6. Has the organization implemented similar projects in the past? ☒ yes ☐ no

Briefly describe these previous projects.

The Mendocino Woodlands Camp Association (MWCA) is the 501c3 nonprofit operator of the Mendocino Woodlands National Historic Landmark State Park (MWSP) and holds a 30-year operating agreement with California State Parks (DPR), to be renewed in 2030. DPR owns Road 700 and 720 from the entrance to the park through the 3-mile park grounds. See Section C Question 23 for details on similar projects implemented by applying agency.

7. List all projects the organization is submitting to the North Coast Resource Partnership for the 2018/19 Project Solicitation in order of priority.

Mendocino Woodlands State Park Sediment Reduction Project

8. Organization Information Notes:

MWCA has been operating the park since 1948, and is responsible for all operations and maintenance. As one of DPR's original nonprofit partners, MWCA stewards over 720 acres of redwood forest including 171 National Historic Landmark structures and a newly restored coho salmon and steelhead run. MWCA operates the camp through camp rental fees, donations, and grants. The Mendocino Woodlands is open to the public and features 25 miles of breathtaking hiking trails in and around the park, an open meadow, large pond, 2 swimming holes, and a variety of flora and fauna. The park is open seasonally from April to November for group camping only and consists of three large, private, rustic campgrounds—each with cabins and a dining/recreation hall—for camps from 30 to 250 people. More than 10,000 visitors a year use the trails and facilities at the Mendocino Woodlands, including 1,000+ youth who participate in our environmental education program, the Mendocino Outdoor Science School (MOSS). MOSS participants come from diverse schools in more than 12 counties in Northern California, and more than 50% of participants qualify as disadvantaged (either attend Title 1 schools or are eligible for free-lunch programs).

B. ELIGIBILITY

1. North Coast Resource Partnership and North Coast IRWM Objectives

GOAL 1: INTRAREGIONAL COOPERATION & ADAPTIVE MANAGEMENT

- ☒ Objective 1 - Respect local autonomy and local knowledge in Plan and project development and implementation
- ☒ Objective 2 - Provide an ongoing framework for inclusive, efficient intraregional cooperation and effective, accountable NCIRWMP project implementation
- ☐ Objective 3 - Integrate Traditional Ecological Knowledge in collaboration with Tribes to incorporate these practices into North Coast Projects and Plans

GOAL 2: ECONOMIC VITALITY

- ☐ Objective 4 - Ensure that economically disadvantaged communities are supported and that project implementation enhances the economic vitality of disadvantaged communities by improving built and natural infrastructure systems and promoting adequate housing
- ☐ Objective 5 - Conserve and improve the economic benefits of North Coast Region working landscapes and natural areas

GOAL 3: ECOSYSTEM CONSERVATION AND ENHANCEMENT

- ☒ Objective 6 – Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity
- ☒ Objective 7 - Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes

GOAL 4: BENEFICIAL USES OF WATER

- ☐ Objective 8 - Ensure water supply reliability and quality for municipal, domestic, agricultural, Tribal, and recreational uses while minimizing impacts to sensitive resources
- ☐ Objective 9 - Improve drinking water quality and water related infrastructure to protect public health, with a focus on economically disadvantaged communities
- ☐ Objective 10 - Protect groundwater resources from over-drafting and contamination

GOAL 5: CLIMATE ADAPTATION & ENERGY INDEPENDENCE

- ☒ Objective 11 - Address climate change effects, impacts, vulnerabilities, and strategies for local and regional sectors to improve air and water quality and promote public health
- ☐ Objective 12 - Promote local energy independence, water/ energy use efficiency, GHG emission reduction, and jobs creation

GOAL 6: PUBLIC SAFETY

- ☒ Objective 13 - Improve flood protection and reduce flood risk in support of public safety

2. Does the project have a minimum 15-year useful life?

- ☒ yes ☐ no

If no, explain how it is consistent with Government Code 16727.

3. Other Eligibility Requirements and Documentation

CALIFORNIA GROUNDWATER MANAGEMENT SUSTAINABILITY COMPLIANCE

- a) Does the project that directly affect groundwater levels or quality?
☐ yes ☒ no
- b) If Yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☒ no

CASGEM COMPLIANCE

- a) Does the project overlie a medium or high groundwater basin as prioritized by DWR?
☐ yes ☒ no
- b) If Yes, list the groundwater basin and CASGEM priority:
- c) If Yes, please specify the name of the organization that is the designated monitoring entity:
- d) If there is no monitoring entity, please indicate whether the project is wholly located in an economically disadvantaged community.
☐ yes ☐ no

URBAN WATER MANAGEMENT PLAN

- a) Is the organization required to file an Urban Water Management Plan (UWMP)?
☐ yes ☒ no
- b) If Yes, list the date the UWMP was approved by DWR:
- c) Is the UWMP in compliance with AB 1420 requirements?
☐ yes ☐ no
- d) Does the urban water supplier meet the water meter requirements of CWC 525?
☐ yes ☐ no
- c) If Yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

AGRICULTURAL WATER MANAGEMENT PLAN

- a) Is the organization – or any organization that will receive funding from the project – required to file an Agricultural Water Management Plan (AWMP)?
☐ yes ☒ no
- b) If Yes, list date the AWMP was approved by DWR:
- c) Does the agricultural water supplier(s) meet the requirements in CWC Part 2.55 Division 6?
☐ yes ☐ no

SURFACE WATER DIVERSION REPORTS

- a) Is the organization required to file surface water diversion reports per the requirements in CWC Part 5.1 Division 2?
☐ yes ☒ no
- d) If Yes, will the organization be able to provide SWRCB verification documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

STORM WATER MANAGEMENT PLAN

- a) Is the project a stormwater and/or dry weather runoff capture project?
☐ yes ☒ no
- b) If yes, does the project benefit a Disadvantaged Community with a population of 20,000 or less?
☐ yes ☐ no
- e) If No, will the organization be able to provide documentation that the project is included in a Stormwater Resource Plan that has been incorporated into the North Coast IRWM Plan, should the project be selected as a Priority Project?
☐ yes ☐ no

C. GENERAL PROJECT INFORMATION

1. Project Name: Mendocino Woodlands State Park Sediment Reduction Project

2. Eligible Project Type under 2018/19 IRWM Grant Solicitation

- ☐ Water reuse and recycling for non-potable reuse and direct and indirect potable reuse
- ☐ Water-use efficiency and water conservation
- ☐ Local and regional surface and underground water storage, including groundwater aquifer cleanup or recharge projects
- ☐ Regional water conveyance facilities that improve integration of separate water systems
- ☒ Watershed protection, restoration, and management projects, including projects that reduce the risk of wildfire or improve water supply reliability
- ☐ Stormwater resource management projects to reduce, manage, treat, or capture rainwater or stormwater
- ☒ Stormwater resource management projects that provide multiple benefits such as water quality, water supply, flood control, or open space
- ☐ Decision support tools that evaluate the benefits and costs of multi-benefit stormwater projects
- ☐ Stormwater resource management projects to implement a stormwater resource plan
- ☐ Conjunctive use of surface and groundwater storage facilities
- ☐ Decision support tools to model regional water management strategies to account for climate change and other changes in regional demand and supply projections
- ☐ Improvement of water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff
- ☐ Regional projects or programs as defined by the IRWM Planning Act (Water Code §10537)
- ☐ Other:

3. Project Abstract

This project will reduce sediment discharges from Roads 700 and 720 into Railroad Gulch, a Class I stream (habitat to Coho Salmon and Steelhead) and a tributary to Big River in the Lower Big River Watershed, by improving drainage on Road 720; directing drainage away from streams; and, transferring vehicle travel to Road 720 (higher up on the hillslope), allowing for the decommissioning of Road 700 (the only year-round, commercial vehicle access route to Mendocino Woodlands State Park).

4. Project Description

Currently two dirt roads (700 and 720) provide access to MWSP, both of which have degraded and do not meet today's road design or environmental standards, with Rd 700 being the only road which provides year-round access to MWSP. It is immediately adjacent to Railroad Gulch and contributes significant sediment to this Class 1 Coho and steelhead-bearing stream. Rd 720 is higher up on the hillside but does not accommodate year-round access to MWSP due to flooding and insufficient turning range for commercial vehicles. It too contributes significant sediment to Railroad Gulch. Rd 720 also contains the 3rd ranked fish migration barrier on JDSF land, limiting access to critical habitat for salmon (Ross Taylor and Associates, 2009). CalFire, as part of its Forest Management Plan, inventoried all roads in JDSF. Out of 288 total road projects, Rd 700 is its top priority for decommissioning.

This project is proposed to be completed in two phases. Phase 1 will upgrade the Cal Fire portion of Rd 720. Phase 2 will upgrade DPR's portion of Road 720 and decommission Road 700. When complete, this project provides significant and numerous benefits (see Question 6 for details).

Major project components: (See Attachment A for detailed descriptions)

- Engineered plans for DPR's portion of Rd 720 upgrades (Phase I)
- Treatments used to control Rd 720 sediment discharges: Upgrade stream crossings; Remove unstable sidecast/fill materials from steep slopes; Apply road drainage techniques; Add road rock/riprap as needed to fortify roads/crossings; Treat road surface to minimize fine sediment production; Reshape/rock 2.67 miles of road; double chip seal 1.85 miles of road (Phase I)
 - Upgrades to DPR's section of Rd 720 (Phase II)
 - Rd 700 decommission: Road will be abandoned from its intersection with Rd 705 to DPR property line, halting most of the sediment delivery to Railroad Gulch (Phase II)

5. Specific Project Goals/Objectives

Goal 1: Reduce Sediment Discharges into Railroad Gulch

Goal 1 Objective: Achieve actions/goals aligned with TMDL recommendations for Big River watershed

Goal 1 Objective: Improve habitat for coho salmon and steelhead

Goal 1 Objective: Improve road to meet current environmental standards

Goal 1 Objective: Improve waterbody based on Clean Water Act Section 303(d) listing

Goal 2: Upgrades to Railroad Gulch Crossing

Goal 2 Objective: Remove velocity barrier to juvenile salmonids

Goal 2 Objective:

Goal 2 Objective:

Goal 2 Objective:

Goal 3: GHG Reduction

Goal 3 Objective: Reduce annual vehicle trips by ~20,000 by transferring vehicle travel from Road 700 to Road 720 (Road 720 is ~1 mile shorter than Road 700)

Goal 3 Objective:

Goal 3 Objective:

Additional Goals & Objectives (List)

6. Describe how the project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives selected.

Expected benefits: Sediment Reduction, Increased Quality of Recreation, Improved fish passage, Habitat restoration, Flood Control, Decreased Operation and Maintenance Costs, Avoided Costs of Road Maintenance, Enhanced Fire-Fighting Capabilities, Education Benefits, and Carbon Emissions reduction.

Benefits will be achieved by implementing sediment control upgrades to 2.67 miles of dirt Rd 720 within the Railroad Gulch watershed, a Class I stream and a tributary to Big River in the Lower Big River Watershed (CalWater Lower Big planning watershed 113.3004), critical habitat to Coho Salmon (Central CA Coast ESU; Federal and State Endangered) and Steelhead (N CA DPS; Federally Threatened) anadromous species- listed as impaired due to sediment/siltation and temperature. The Big River Total Maximum Daily Load document lists road-related sediment as the largest component of management-related sediment. Total annual sediment controlled will be <422 tons/year with Phase I of this project.

7. Describe the need for the project.

Project provides significant benefits in 5 areas. Dirt Roads 700/720 negatively impact habitat to endangered coho salmon and steelhead by delivering heavy sediment directly into Railroad Gulch. Primary uses of Rd 700/720: Access to MWSP, one of the few remaining New Deal-era group camping facilities in the US. Rd 700 is the only year-round, commercial vehicle access to the park (open to the public year-round for hiking/biking/picnicking/wildlife viewing). Camping season runs from March-November. 32 MWCA staff live on-site. Ensuring year-round, commercial vehicle access to MWSP is vital for the safety of our staff, over 10K annual visitors, and 1,000 youth who participate in MWCA's environmental education program. The majority of Rd 700 was a "spur" to the 1900 mainline railroad from Big River. 1940s: The railroad grades were converted to truck roads. Rd 720 was constructed in the mid-1970s to accommodate logging operations on JDSF, later connected to the bottom road to access MWSP.

8. List the impaired water bodies (303d listing) that the project benefits:

Railroad Gulch is a Class I stream (critical habitat to Coho Salmon and Steelhead anadromous species), located within the Big River watershed (116K acres), and is Clean Water Act Section 303(d) listed as impaired due to sediment/siltation and temperature. Rd. 700/720 negatively impacts salmonids by delivering heavy sediment. Total annual sediment controlled by this project: <422 tons/year (~1.5x the total TMDL goal for sediment reduction in the Railroad Gulch watershed).

9. Will this project mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action? ☐ yes ☒ no

If so, please describe?

10. Describe the population served by this project.

MWSP serves 10K visitors annually from throughout the state, nation, and internationally. Our youth environmental program, the Mendocino Outdoor Science School, serves youth ages 8-18 from 12 counties in Northern California. More than 50% of participating students are eligible for free-lunch

programs or are from Title One schools. Mendocino County population is at 87,841, with Latino/Hispanic representing 25.4% of the population (US Census).

11. Does the project provide direct water-related benefits to a project area comprised of Disadvantaged Communities or Economically Distressed Communities?

- ☒ Entirely
- ☐ Partially
- ☐ No

List the Disadvantaged Community(s) (DAC)

Mendocino County

Additional DAC communities benefiting from project: More than 50% of MWSP youth environmental education program 1,000+ annual participants identify as disadvantaged (either attend Title 1 schools or are eligible for free-lunch programs).

12. Does the project provide direct water-related benefits to a project area comprised of Severely Disadvantaged Communities (SDAC)?

- ☐ Entirely
- ☐ Partially
- ☒ No

List the Severely Disadvantaged Community(s)

13. Does the project provide direct water-related benefits to a Tribe or Tribes?

- ☐ Entirely
- ☐ Partially
- ☒ No

List the Tribal Community(s)

Though not a water-related benefit, this project project ecosystem enhancement with cultural resource benefits of improved sedge grass and tan oak habitat. Tribes contacted via email regarding this project: Sherwood Valley Band of Pomo Indians, Coyote Valley Band of Pomo Indians, and Point Arena/Manchester Band of Pomo Indians.

If yes, please provide evidence of support from each Tribe listed as receiving these benefits.

14. If the project provides benefits to a DAC, EDA or Tribe, explain the water-related need of the DAC, EDA or Tribe and how the project will address the described need.

This project addresses a water-related need of DAC by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid populations.

15. Does the project address and/or adapt to the effects of climate change? Does the project address the climate change vulnerabilities in the North Coast region? ☒ yes ☐ no

If yes, please explain.

The primary component of this project that will benefit and enhance climate change resiliency is upgraded watercourse crossings so they become storm proof. The reconstruction of watercourse crossings to a storm proof standard will ensure that associated road fills are protected from failure and discharge into a watercourse by designing crossings to accommodate a 6-year flood flow (see Attachment A for detailed information).

16. Describe how the project contributes to regional water self-reliance.

N/A

17. Describe how the project benefits salmonids, other endangered/threatened species and sensitive habitats.

Benefits to salmonids: Railroad Gulch is critical habitat to Coho Salmon (Central CA Coast ESU; Federal and State Endangered) and Steelhead (N. CA DPS; Federally Threatened) anadromous species. This project will remove a velocity barrier to juvenile salmonids and will reduce future sediment delivery by an <12,777 cubic yards (20,443 tons) by: improving drainage, directing drainage away from streams, and making Rd 720 the year-round commercial vehicle access to MWSP, allowing Rd 700 decommission.

18. Describe local and/or political support for this project.

Both landowners, California State Parks and CalFire, are very supportive of this project. District legislative representatives are aware of the need for this project and have voiced their support. MWSP visitors are supportive of the project as Road 700 is not well-maintained, and MWCA receives several complaints about road conditions from visitors each year. Local support for this project has been voiced from nonprofit organizations (Trout Unlimited, Mendocino Land Trust).

19. List all collaborating partners and agencies and nature of collaboration.

California State Parks (DPR): MWCA is the 501c3 operator of MWSP and holds a 30-year operating agreement with DPR (to be renewed in 2030). DPR owns Road 700 and 720 from the entrance to the park through the 3-mile park grounds.

CalFire: Own all roads to and from MWSP. CalFire and DPR hold an MOU for road access and maintenance.

MWCA, DPR, and CalFire collaborate on all aspects of this project. Collaboration takes place via in person meetings, emails, and conference calls where project vision, funding, plans/designs, permits, and other updates are shared and worked through. Project planning and permits are 90% complete for CalFire's section of Road 720.

20. Is this project part or a phase of a larger project? ☒ yes ☐ no

Are there similar efforts being made by other groups? ☒ yes ☐ no

If so, please describe?

This project is a part of CalFire's forest management plan for Jackson Demonstration State Forest (JDSF). In the road inventory analysis of 288 total road projects on JDSF, Rd 700 is a top priority for decommission.

Rd 700 has been identified as not providing necessary road network access for timber operations and will not likely be part of a Timber Harvest Plan at any point for JDSF. In order to decommission Rd 700, Rd 720 must first be upgraded to a year-round, commercial vehicle access road.

21. Describe the kind of notification, outreach and collaboration that has been done with the County(ies) and/or Tribes within the proposed project impact area, including the source and receiving watersheds, if applicable.

Tribal benefits: Cultural resources of sedge grass and tan oak habitat would be improved with this project. Tribes contacted via email regarding tribal benefits from this project: Sherwood Valley Band of

Pomo Indians, Coyote Valley Band of Pomo Indians, and Point Arena/Manchester Band of Pomo Indians. CEQA completed for Phase 1 of this project (CalFire's portion of Rd 720, see attachments).

22. Describe how the project provides a benefit that meets at least one of the Statewide Priorities as defined in the 2018 IRWM Grant Program Guidelines and Tribal priorities as defined by the NCRP?

The Mendocino Woodlands State Park Sediment Reduction Project meets the following Statewide Priorities as defined in the 2018 IRWM Grant Program Guidelines and Tribal priorities as defined by the NCRP:

- Protect and Restore Important Ecosystems by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid populations through sediment reduction and removal of a fish barrier.
- Increase Flood Protection by upgrading watercourse crossings so they become storm proof.
- Ensure that there is a sustainability aspect to the project through erosion control which will require less maintenance and therefore provide an economic benefit.

23. Project Information Notes:

Please find more info detailed project description and benefits as well as references in Attachment A.

The Mendocino Woodlands Camp Association (MWCA) is the 501c3 nonprofit operator of the Mendocino Woodlands National Historic Landmark State Park (MWSP) and holds a 30-year operating agreement with California State Parks (DPR), to be renewed in 2030. DPR owns Road 700 and 720 from the entrance to the park through the 3-mile park grounds. CalFire operates Jackson Demonstration State Forest (JDSF), which surrounds MWSP, and owns all roads to and from the park. CalFire and DPR hold an MOU for road access and maintenance. All 3 entities have relevant experience and have implemented similar projects in the past.

Roads 700 and 720 are maintained by CalFire and MWCA. CalFire provides their operator and equipment and MWCA provides material and any additional equipment, with CalFire doing the actual grading and work. MWCA spends ~\$10,000 annually on road maintenance at the park, with ~ 99% of this being budgeted to Road 700. DPR has no money allocated annually towards road maintenance at the park due to district budget restrictions. CalFire has completed several similar projects (road decommissioning, fish passage and large woody debris placement projects in the Big River) including the James Creek road decommissioning project (where 5.1 miles of road and numerous watercourse crossings were decommissioned and a large fish passage barrier road crossing was removed), and a fish passage project on James Creek adjacent to Highway 20 (to improve salmon habitat in the Big River watershed). Additionally, MWCA has successfully completed a number of major construction projects over the years, including the 2008 Camp 1 Dining Hall rehabilitation, and the 2016 Camp 1 Balcony restoration project and Helpers Foundation reconstruction.

D. PROJECT LOCATION

1. Describe the location of the project

Geographical Information

The project is located within the Big River watershed, and is Clean Water Act Section 303(d) listed as impaired due to sediment/siltation and temperature. The Big River watershed encompasses nearly

116,000 acres or 181 mi² of land area. Jackson Demonstration State Forest (JSDF) property occupies nearly the entire Railroad Gulch watershed with only a minor area of State Parks lands. Longitude: -123.749900000; Latitude: 39.309800000

2. Site Address (if relevant):

39350 Little Lake Road, Mendocino, CA 95460

3. Does the applicant have legal access rights, easements, or other access capabilities to the property to implement the project?

☒ Yes If yes, please describe

☐ No If No, please provide a clear and concise narrative with a schedule, to obtain necessary access.

☐ NA If NA, please describe why physical access to a property is not needed.

MWCA hold a 30-year operating agreement with DPR to operate and maintain MWSP. DPR and CalFire have a MOU for road access and maintenance to the park.

4. Project Location Notes:

E. PROJECT TASKS, BUDGET AND SCHEDULE

1. Projected Project Start Date: 9/30/20

Anticipated Project End Date: 11/30/24

2. Will CEQA be completed within 6 months of Final Award?

☒ Yes

State Clearinghouse Number:

☐ NA, Project is exempt from CEQA

☐ NA, Not a Project under CEQA

☐ NA, Project benefits entirely to DAC, EDA or Tribe, or is a Tribal local sponsor. [Projects providing a water-related benefit entirely to DACs, EDAs, or Tribes, or projects implemented by Tribes are exempt from this requirement].

☐ No

3. Please complete the CEQA Information Table below

Indicate which CEQA steps are currently complete and for those that are not complete, provide the estimated date for completion.

CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Initial Study	Y	
Notice & invitation to consult sent to Tribes per AB52		
Notice of Preparation		
Draft EIR/MND/ND		
Public Review	Y	
Final EIR/MND/ND	Y	
Adoption of Final EIR/MND/ND	Y	

CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Notice of Determination	Y	
N/A - not a CEQA Project		

If additional explanation or justification of the timeline is needed or why the project does not require CEQA, please describe.

4. Will all permits necessary to begin construction be acquired within 6 months of Final Award?

- ☒ Yes
☐ NA, Project benefits entirely to DAC, EDA, Tribe, or is a Tribal local sponsor
☐ No

5. PERMIT ACQUISITION PLAN

Type of Permit	Permitting Agency	Date Acquired or Anticipated
Small Habitat Restoration	CDFW and SWRCB	12/31/19

For permits not acquired: describe actions taken to date and issues that may delay acquisition of permit.

6. Describe the financial need for the project.

MWCA receives no annual funds from DPR for road maintenance. MWCA is required to fundraise for projects beyond the scope of our budget-strapped district. MWCA and DPR have contributed 260 staff hours to this project since 2015. While CalFire owns the roads, the primary use of Rd 700/720 is access to MWSP, not timber operations. CalFire has contributed \$29,916 via in-kind staff hours towards this project since 2015, and plans/permits on CalFire's portion of Road 720 are 90% complete.

7. Is the project budget scalable? ☒ yes ☐ no

Describe how a scaled budget would impact the overall project.

This project could be scaled in an additional phased approach:

Phase I A: Create engineered plans for upgrades to DPR's portion of Road 720 (\$10,000.00)

Phase I B: Upgrade Railroad Gulch crossing/remove fish barrier (\$368,139.00)

Phase I C: Upgrade reduced miles to CalFire's portion of Road 720 (TBD pending funding)

In order to scale this project, MWCA would pursue additional support in 2019 via CalTrans Environmental Enhancement and Mitigation (EEM) Grant Program; California Water Board Nonp

8. Describe the basis for the costs used to derive the project budget according to each budget category.

Costs for materials/equipment: Culvert and Rock Rip Rap Purchases (\$45K); Road Base Rock (\$145K; in-kind, CalFire). Class III Culvert = 290 feet (24" culvert x 200' and 30" culvert x 90'); Ditch Relief = 200 feet (18" culvert); Rock armoring of inlets and outlets. (250 Yards of ¼-1/2 Ton Rip Rap); Rock road surface (6" compacted depth of pit run rock (5600 yards) plus 2" of ¾" minus top lift road base (2100 yards); 2.67 miles). All labor will be in-house, provided by CalFire, MWCA, and DPR.

9. Provide a narrative on cost considerations including alternative project costs.

Other alternatives were evaluated: Upgrades to Rd 700 are not feasible due to location next to streambed. Water crossing (bridge) at top of Rd 720 not feasible due to high costs; High/low crossings on Rd 720 not feasible due to the need to make Rd 720 a year-round, commercial vehicle access road. The advantages this project provides from a cost perspective are removing heavy sediment delivery into fish-bearing streams while maintaining year-round, commercial vehicle access to MWSP.

10. List the sources of non-state matching funds, amounts and indicate their status.

MWCA staff hours towards project from 2015 to present: 200 at \$51.92/hour: \$10,384 (committed)

11. List the sources and amount of state matching funds.

DPR staff hours towards project from 2015 to present: 60 at \$50/hour: \$3,000 (committed). CalFire will provide \$250,474 (committed) towards this project in the form of in-kind staff contributions and heavy equipment time. This amount includes in-kind staff time for project administration, plans and permitting, construction oversight, construction, and monitoring for the Road 720 upgrades including the Railroad Gulch crossing. CalFire has invested \$29,916 (committed) towards plans, land surveys, and permitting/CEQA fees since 2015

12. Cost Share Waiver Requested (DAC or EDA)? ☒ yes ☐ no

Cost Share Waiver Justification: Describe what percentage of the proposed project area encompasses a DAC/EDA, how the community meets the definition of a DAC/EDA, and the water-related need of the DAC/EDA that the project addresses. In order to receive a cost share waiver, the applicant must demonstrate that the project will provide benefits that address a water-related need of a DAC/EDA. This project addresses a water-related need of DAC by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid populations. DAC communities: Mendocino County. Additional DAC communities benefiting from project: More than 50%

of MWSP youth environmental education program 1,000+ annual participants identify as disadvantaged (either attend Title 1 schools or are eligible for free-lunch programs).

13. Major Tasks, Schedule and Budget for NCRP 2018 IRWM Project Solicitation

Please complete MS Excel table available at <https://northcoastresourcepartnership.org/proposition-1-irwm-round-1-implementation-funding-solicitation/>; see instructions for submitting the required excel document with the application materials.

14. Project Tasks, Budget and Schedule Notes:

F. PROJECT BENEFITS & JUSTIFICATION

1. Does the proposed project provide physical benefits to multiple IRWM regions or funding area(s)?

☐ yes ☒ no

If Yes, provide a description of the impacts to the various regions.

2. Provide a narrative for project justification. Include any other information that supports the justification for this project, including how the project can achieve the claimed level of benefits. List any studies, plans, designs or engineering reports completed for the project. *Please see the instructions for more information about submitting these documents with the final application.*

This project will reduce future sediment delivery by an estimated total of 12,777 cubic yards (20,443 tons), vital to restore habitat to endangered coho salmon and steelhead anadromous species as they are unable to reproduce due to heavy sediment loading. The Big River TMDL sets a goal of 82% reduction of road related sediment or approximately 148 tons per square mile per year for the Big River watershed. The Railroad Gulch planning watershed is approximately 1,220 acres or 1.91 square miles. The annual sediment reduction target per the TMDL for the Railroad Gulch watershed is 283 tons/year. This project will control and eliminate sediment deliveries from chronic and episodic road related sources. For this project alone it is estimated that the total annual sediment controlled will be at least 422 tons/year or approximately 1.5 times the total TMDL goal for sediment reduction in the Railroad Gulch watershed.

Supporting documents (attachments):

Initial Study/Mitigated Negative Declaration for the Proposed Jackson Demonstration State Forest Road 720 Upgrade Project, Mendocino California. June 25, 2018. Schedule #2018062051 (attachment)

California Department of Fish and Wildlife. Streambed Alteration Agreement Notification # 1600-2018-0236-R1.

<https://ceqanet.opr.ca.gov/2018068658>

The following list of references supported/guided the project process:

Pacific Watershed Associates, 2013. Railroad Gulch Road 700 and 720 Sediment Source and Road Relocation Project, Mendocino County, California. PWA Report # 12093801

Ross Taylor and Associates, 2009, Jackson State Forest Stream Crossing Inventory and Fish Passage Evaluation Final Report: .94

Coastal Watershed Planning Assessment Program Big River Basin Assessment, November 2006
https://www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_1/2010/ref3706.pdf

CDFW Fisheries Survey, Railroad Gulch, 1996

Big River TMDL
https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/big_river/pdf/bigfinaltmdl.pdf

National Oceanic and Atmospheric Association: Big River
https://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/north_central_california_coast/central_california_coast_coho/bigriver_ii.pdf

3. Does the project address a contaminant listed in AB 1249 (nitrate, arsenic, perchlorate, or hexavalent chromium)? ☐ yes ☒ no

If yes, provide a description of how the project helps address the contamination.

4. Does the project provide safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes consistent with AB 685? ☐ yes ☒ no

If Yes, please describe.

5. Does the project employ new or innovative technologies or practices, including decision support tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation? ☐ yes ☒ no

If Yes, please describe.

6. For each of the Potential Benefits that the project claims complete the following table to describe an estimate of the benefits expected to result from the proposed project. [See the NCRP Project Application Instructions, Potential Project Benefits Worksheet and background information to help complete the table. The NCRP Project Application, Attachment B includes additional guidance, source materials and examples from North Coast projects.]

PROJECT BENEFITS TABLE

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
Water Supply				
Water Quality				
Sediment Reduction [This project will reduce future sediment delivery by an estimated total of 12,777 cubic yards (20,443 tons) with combined Phases 1 and 2]		12,777 tons	Up to \$11 per ton/yr	\$140,547
Other Ecosystem Service Benefits				
Improved fish passage	see notes	see notes		
Flood Control	see notes			
Other Benefits				
Increased Quality of Recreation of Public Access		See notes	see notes	\$128,276
Habitat restoration			\$120 per acre/yr	
Decreased Operation and Maintenance Costs	see notes			~\$3K/yr decrease
Enhanced Fire-Fighting Capabilities		Avoided costs	Rd720=1mi. shorter	
Education Benefits		10K ppl reached/yr		
Carbon Emissions		see notes		

7. Project Justification & Technical Basis Notes:

Benefits Notes

- Improved fish passage. Partial fish passage barrier: Existing culvert is in poor condition and will only pass a 6-year flow event. The large crossing over main stem Railroad Gulch is approximately 150' above the confluence with Big River. A 5 acre lagoon exists approximately 300' upstream of this feature. The road at

this location is built on the Big River floodplain and during moderately-low 3-year return interval flood events, Railroad Gulch backs up to a level above the floodplain/road surface and the culvert is underwater.

Replace existing Class III Watercourse (90" Diameter steel culvert. 100' Long. Culvert has two 30 degree elbow bends) with new 12' x 12' x 82' long precast concrete box culvert per engineering design and instructions.

- Flood control: Rd 720 currently floods, reducing it to a seasonal, summer-use road. Flood control measures will make Rd 720 more resilient to floods, making it the year-round, commercial vehicle access to MWSP. Raise Rd 720 roadbed by 4 feet in elevation (4200 yards of fill; 0.26 miles). Upgrade watercourse crossings so they become storm proof. The reconstruction of watercourse crossings to a storm proof standard will ensure that associated road fills are protected from failure and discharge into a watercourse by designing crossings to accommodate a 6-year flood flow.

- Increased Quality of Recreation of Public Access: 270 camping days per year;
365 hiking days per year; 365 mountain biking days per year; 365 picnicking days per year; 365 wildlife viewing days per year

\$128 per camping day; \$28 per hiking day; \$61 per mountain biking day; \$79 per picnicking day; \$89 per wildlife viewing day

\$34,560 (camping days)

\$10,220 (hiking days); \$22,265 (mountain biking days); \$28,835 (picnicking days); \$32,396 (wildlife viewing days)

TOTAL: \$128,276

- Decreased maintenance costs: MWCA spends ~\$10K annually on Rd 700 maintenance which should decrease by ~\$3K after Rd 720 is upgraded. Rd 700 is not maintainable in its current condition due to location near stream and it has been identified for decommission by CalFire (so no upgrades are permitted). Material in Rd 700 road bed is made up of sub grade material (6" cobble) which impossible to grade/maintain.

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Carbon Emissions: GHG emissions reduced by 20,000 vehicle trips annually by upgrading Rd 720 to a year-round, commercial vehicle access road to MWSP.

Major Tasks, Schedule and Budget for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Mendocino Woodlands State Park Sediment Reduction Project
 Organization Name: Mendocino Woodlands Camp Association

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
A Category (a): Direct Project Administration									
1	Administration	In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Develop invoices with support documentation. Provide audited financial statements and other deliverables as required	Invoices, audited financial statements and other deliverables as required; Quarterly and Final Reports	0%	\$18,240.00	\$10,400.00	\$28,640.00	1/1/15	11/30/24
B Category (b): Land Purchase/Easement									
1				0%	\$0.00	\$0.00	\$0.00		
C Category (c): Planning/Design/Engineering/Environmental Documentation									
1	Final Design /Plans	Engineering Design Plans for upgrades to DPR's portion of Road 720 (\$10,000); Pre-project planning, California State Parks (DPR): \$3,000; Project Design (consultant hired by CalFire; \$38,260); CalFire Planning and Permitting for Road 720 upgrades (\$44,916); Land surveys for CalFire's portion of Road 720 (\$5,740); Engineering Design Plans for upgrades to CalFire's portion of Road 720 (\$4,176)	Plans for Road 720 upgrades	50%	\$48,260.00	\$57,832.00	\$106,092.00	1/1/15	12/23/22
2	Environmental Documentation: CEQA *	Permitting/CEQA Fees for CalFire's portion of Road 720 (Phase 1: \$12,000; Phase 2: \$8,000)	CEQA complete for CalFire's portion of Road 720	100%	\$0.00	\$20,000.00	\$20,000.00	1/1/17	7/1/18
D Category (d): Construction/Implementation									
1	Mobilization and Site Preparation	Supplies: Culvert and Rock Rip Rap Purchases (\$45,000); Road Base Rock (\$145,000; in-kind provided by CalFire)	Class III Culvert = 290 feet (24" culvert x 200' and 30" culvert x 90'); Ditch Relief = 200 feet (18" culvert); Rock armoring of inlets and outlets. (250 Yards of ¼- 1/2 Ton Rip Rap); Rock road surface (6" compacted depth of pit run rock (5600 yards) plus 2" of ¾" minus top lift road base (2100 yards); 2.67 miles)	0%	\$45,000.00	\$145,000.00	\$190,000.00	9/30/20	11/30/24
2	Project Construction/Implementation	Culvert installations and Construction (\$55,000); Curve Re-alignments and Turn-out Construction (\$55,000); Utility Relocation (\$70,000); Road 720 Surface Elevation 4 Foot Lift (0.26 Miles; \$37,500); Road 720 Base Rock Surfacing (2.67 Miles; \$150,000); Road 720 Double Chip Seal (1.85 Miles; \$158,000); Road 720 Railroad Gulch Crossing Construction (\$368,139)	Road 720 upgrades to reduce sediment discharges into Railroad Gulch	0%	\$893,639.00	\$0.00	\$893,639.00	9/30/20	11/30/24
4	Project Signage	Create signs notifying public of construction areas with project funders identified	Project and construction signage	0%	\$200.00	\$0.00	\$200.00	9/30/20	11/30/24
5	Project Close Out, Inspection & Demobilization and Performance Monitoring	Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion	<ul style="list-style-type: none"> Disturbed areas of greater than 100 sq.ft. will be stabilized with a combination of straw mulch, woody slash and straw wattles. Project completion documentation will confirm mitigations 	0%		\$5,764.00	\$0.00	11/30/24	11/30/24
6	Construction Administration	CalFire Supervision of construction: Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring. Match: CalFire: \$30,642; DPR \$3,000; MWCA \$24,000	Construction Management Logs; Completed construction administration tasks documented in monthly progress reports	0%	\$27,000.00	\$24,878.00	\$57,642.00		12/23/24
Total North Coast Resource Partnership 2018/19 IRWM Grant Request					\$1,032,339.00	\$263,874.00	\$1,296,213.00		
Is Requested Budget scalable by 25%? If yes, indicate scaled totals; if no delete budget amount provided.					\$774,254.25	\$197,905.50	\$972,159.75		
Is Requested Budget scalable by 50%? If yes, indicate scaled totals; if no delete budget amount provided.					\$516,169.50	\$131,937.00	\$648,106.50		

Budget Detail for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Mendocino Woodlands State Park Sediment Reduction Project

Organization Name: Mendocino Woodlands Camp Association

Budget Detail

Row (a) Direct Project Administration Costs					
Project Management Type	Personnel by Discipline	Number of Hours	Hourly Wage	% of Cost (if applicable) *	Total Admin Cost
Project Administration	Cyrus Kroninger, Operations Director, Mendocino Woodlands Camp Association	440	\$52		\$22,880
Project Reports/Grant Reports	Elizabeth Cameron, Development Director, Mendocino Woodlands Camp Association	160	\$36		\$5,760
Materials					
Equipment				\$0	\$28,640
Total					
* What is the percentage based on (including total amounts)?		n/a			
* How was the percentage of cost determined?		n/a			

Row (b) Land Purchase/Easement

Row (c) Planning/Design/Engineering & Environmental Documentation					
Personnel (Discipline)	Major Task Name	Number of Hours	Hourly Wage	Total Cost	
California State Parks Engineering Geologist (or Consultant)	Engineered Plans for upgrades to California State Parks portion of Road 720	lump sum	lump sum	\$10,000	
California State Parks Pre-Planning	Site walks and preparation for plans/designs/documentation/permitting	60	50	\$3,000	
CalFire Forester I	CalFire Planning and Permitting for Road 720 upgrades	160	\$84.13	\$13,442	
CalFire Forester II	CalFire Planning and Permitting for Road 720 upgrades	160	\$107.50	\$17,200	
CalFire Forester III	CalFire Planning and Permitting for Road 720 upgrades	80	\$115.31	\$9,225	
CalFire Environmental Scientist	CalFire Planning and Permitting for Road 720 upgrades	80	\$63	\$5,049	
Project Design (Consultant)	Project Design for upgrades to CalFire's portion of Road 720	lump sum	lump sum	\$38,260	
Engineering Design Pland	Engineered plans for upgrades to CalFire's portion of Road 720	lump sum	lump sum	\$4,176	
Land Surveys	Land Surveys for upgrades to CalFire's portion of Road 720	lump sum	lump sum	\$5,740	
Permitting/CEQA Fees (Phase I)	Permitting/CEQA Fees (Phase I) for upgrades to CalFire's portion of Road 720			\$12,000	
Permitting/CEQA Fees (Phase II)	Permitting/CEQA Fees (Phase II) for upgrades to CalFire's portion of Road 720			\$8,000	
Total				\$126,092	

Row (d) Construction/Implementation				
Personnel (Discipline)	Work Task and Sub-Task (from Work Task Table)	Number of Hours	Hourly Wage	Total Cost
CalFire Supervision of Constuction Forester I		160	\$84.13	\$13,442
CalFire Supervision of Constuction Forester II		160	\$108	\$17,280
Construction Supervision (Consultant)		lump sum	lump sum	\$30,000

Budget Detail for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

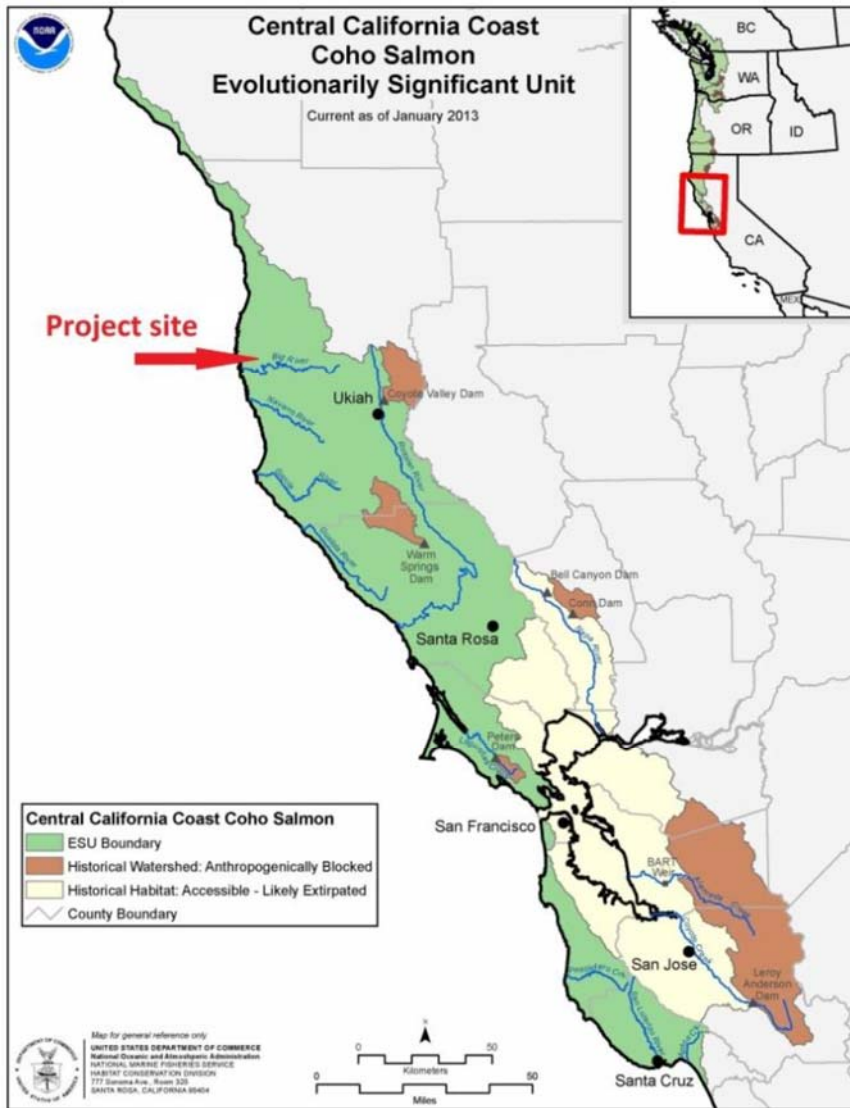
Project Name: Mendocino Woodlands State Park Sediment Reduction Project
Organization Name: Mendocino Woodlands Camp Association

California State Parks (DPR) Supervision of Construction		60	\$50	\$3,000
Culvert Installations and Construction		lump sum	lump sum	\$55,000
Curve Re-alignments and Turn-out Construction		lump sum	lump sum	\$55,000
Utility Relocation		lump sum	lump sum	\$70,000
Road 720 Surface Elevation 4 Food Lift (0.26 Miles)		lump sum	lump sum	\$37,500
Road 720 Base Rock Surfacing (2.67 Miles)		lump sum	lump sum	\$150,000
Road 720 Double Chip Seal		lump sum	lump sum	\$158,000.00
Road 720 Railroad Gulch Crossing Construction		lump sum	lump sum	\$368,139
Labor, Maintenance Specialist, Mendocino Woodlands Camp Association		480	\$25	12,000
Labor, Maintenance Specialist, Mendocino Woodlands Camp Association		480	\$25	12000
Labor, Mendocino Woodlands Camp Association, Operations Director		240	\$52	\$12,480
Materials and Equipment	Work Task and Sub-Task (from Work Task Table)	Number of Units	Unit Cost	
Culvert and Rock Rip Rap Purchases	Culvert and Rock Rip Rap Purchases (\$45K); Road Base Rock (\$145K; in-kind, CalFire). Class III Culvert = 290 feet (24" culvert x 200' and 30" culvert x 90'); Ditch Relief = 200 feet (18" culvert); Rock armoring of inlets and outlets. (250 Yards of ¼-1/2 Ton Rip Rap);			\$45,000
Road Base Rock	Rock road surface (6" compacted depth of pit run rock (5600 yards) plus 2" of ¾" minus top lift road base (2100 yards); 2.67 miles).			\$40,000
Total				\$95,000

MENDOCINO WOODLANDS STATE PARK SEDIMENT REDUCTION PROJECT

General Description

The proposed project is to implement road reconstruction and sediment control upgrades to 2.67 miles of dirt Road 720 within the Railroad Gulch watershed on Jackson Demonstration State Forest (JDSF) and Department of Parks and Recreation property. The proposed project is Phase 1 of 2 for improving JDSF Railroad Gulch forest roads and, after both phases are complete, will make Road 720 the new primary access to the Mendocino Woodlands State Park (MWSP).



The Mendocino Woodlands State Park Sediment Reduction Project involves a variety of treatments used to reduce sediment delivery and make dirt roads more resilient to large storms and flood flows, as well as upgrades at Railroad Gulch Crossing, a velocity barrier to all juvenile salmonids and has been determined to be the third ranked fish barrier on Jackson Demonstration State Forest lands. The current dirt access roads negatively impact salmon by delivering heavy sediment directly to Railroad Gulch, a Class I stream and a tributary to Big River in the Lower Big River Watershed. Railroad Gulch provides critical habitat to Coho Salmon (Central California Coast ESU; Federal and State Endangered) and Steelhead (Northern California DPS; Federally Threatened) anadromous species. The primary beneficial use of water within the Railroad Gulch watershed is for anadromous habitat. As described in the Big River CDFG Appendix of the 2006 Big River Basin Assessment Report, and CDFW fisheries surveys (*see reference attachments*) coho Salmon and steelhead are present in the Railroad Gulch channel. In addition, surveys describe some good spawning habitat, abundant smaller pools and good cover as well as pointing out the problems of road related silt in the stream channel as degradation of fish habitat.

Sediment is a well understood danger originating from dirt logging roads. The sediment from these roads gets into streams and buries the spawning gravels adult salmon use in which to lay their eggs. Sediment also fills the interstitial spaces between spawning gravels, preventing oxygen from reaching fertilized salmon eggs. Salmon are unable to reproduce due to heavy sediment loading. The State of California has determined that water quality standards for Big River and its tributaries are exceeded due to sediment. The Big River Total Maximum Daily Load (TMDL) document indicates that road-related sediment is the largest component of management-related sediment. Other plans that

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recommend reducing road related sediment are the Jackson Demonstration State Forest Management Plan and the Coho Recovery Plan. The roads addressed in this proposal are high priorities for reducing road-related sediment to Railroad Gulch and Big River. The Big River TMDL (2001) estimated that 29% of the total sediment load in year 2000 was sourced from the road system. The TMDL also specifies an 82% reduction, or approximately 148 tons per square mile per year for the Big River watershed, from road related sediment to reach target goals. The TMDL document states that reducing sediment from roads should be the highest priority for sediment reduction as this will be the most cost-effective means of achieving the TMDL. This could include reducing the overall mileage of roads through decommissioning unused roads and upgrading existing roads to reduce sediment delivery to streams. The Railroad Gulch planning watershed is approximately 1,220 acres or 1.91 square miles. The annual sediment reduction target per the TMDL for the Railroad Gulch watershed is 283 tons/year. ***For Phase I of this project alone it is estimated that the total annual sediment controlled will be a minimum of 422 tons/year or approximately 1.5 times the total TMDL goal for sediment reduction in the Railroad Gulch watershed.***

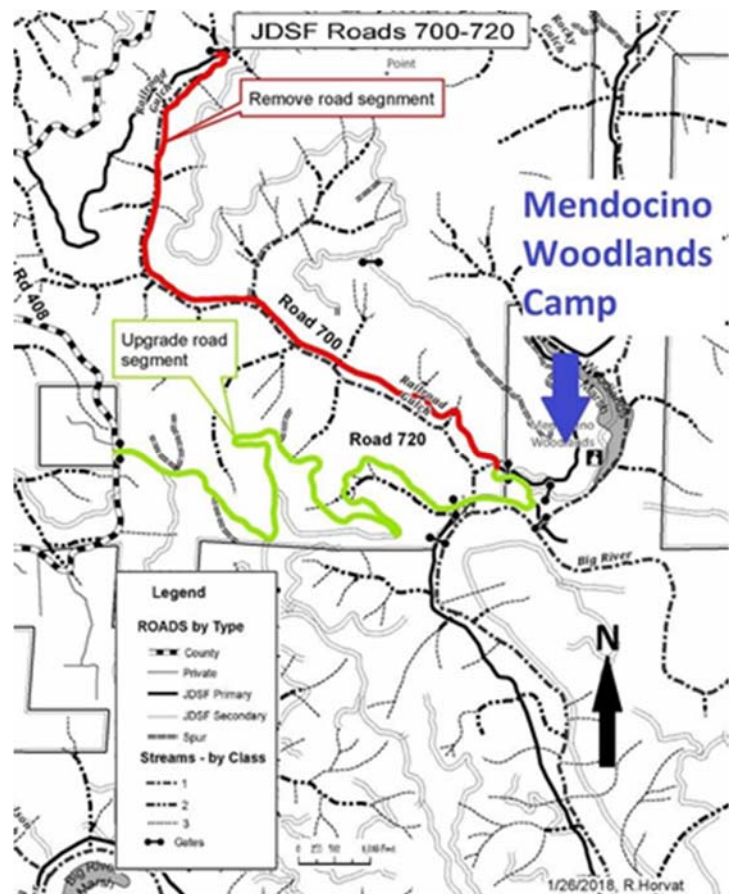
This project will reduce future sediment delivery by an estimated total of 12,777 cubic yards (20,443 tons) with combined Phases 1 and 2. This value includes potential sediment sources from “chronic” road surfaces such as cutbanks and ditches, as well as “episodic” sources such as watercourse crossings where sediment is delivered from crossings and road failures. At new or upgraded sites, the potential sediment volume was a calculated estimate of the chronic sediment from the road system that would be transported and delivered to a watercourse. In addition, field crews measured the lengths of hydrologically connected road segments to derive estimates for sediment delivery, on a 10 year basis. The empirical formula used is: (measured length) x (20 ft average width, including cutslopes and ditches) x (0.1-.3 ft average lowering of the road surface lowering was assigned by staff based on local geology as follows: (1) 0.1 ft/10 yr (low rating); (2) 0.15 ft/10 yr (moderate-low rating); (3) 0.2 ft/10 yr (moderate rating); (4) 2.5 ft/10 yr (moderate-high rating); and (5) 0.3 ft/10 yr (high rating). Because Road 700 is immediately adjacent to Railroad Gulch we used a chronic surface erosion value of .3 foot/10 year.

Sediment treatments for this project:

1. Upgrade stream crossings: Size culverts to accommodate 6-year peak storm flow and debris in transport, and correct or prevent stream diversion;
2. Raising the section of Road 720 that parallels Big River by 4 feet;
3. Apply road drainage techniques: Install ditch relief culverts, remove berms, construct rolling dips, inslope or outslope the road to improve dispersion of surface runoff;
4. Add road rock or riprap as needed to fortify roads and crossings;
5. Treat the road surface with competent rock road base and double chip seal to minimize fine sediment production.

The project will reshape and rock 2.67 miles of road and “double chip seal” the road surface. The rock treatment will

add a compacted 6” layer of pit run rock and a 2” top layer of ¾ minus road base prior to chip sealing. Chip sealing is a road surface treatment technique used to effectively hydrologically disconnect the road from the watercourses and prevent sediment from discharging into the



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watershed. The treatment is an application of hot asphalt emulsion followed by an aggregate cover over the traveled surface of the road. A double chip seal is two applications of the asphalt and aggregate cover creating a thicker more durable surface with only a minor increase in overall costs. This is the best and most cost-effective measure to prevent fine sediment production from the road surface. Road 700 is the current main access road to MWSP with heavy annual visitor use (over 10K visitors/annually). In a future Phase 2 project, Road 700 will be abandoned from its intersection with Road 705 to the State Parks property line and halt most of the sediment delivery to Railroad Gulch. The 2-phase approach maintains access to the Mendocino Woodlands State Park.

Detailed Description

Road Feature #	Crossing Type	Existing Structure	Proposed Upgrade	Comments
1	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
2	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
3	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
4	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
5	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
6	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
7	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
8	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
9	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
10	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
11	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or ¼ ton.	Clean inlet of any obstructions.
12	Proposed Ditch Relief	None	Install new 18" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Install "T" post at inlet side of culvert.
13	Existing Class III Watercourse	18" Diameter aluminum culvert. 30' Long	Install new 18" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or ¼ ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
14	Proposed Ditch Relief	None	Install new 18" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to 12" avg. diameter or 1/10 ton.	Install "T" post at inlet side of culvert.

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15	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or ¼ ton.	Clean inlet of any obstructions.
16	Existing Class III Watercourse	18" Diameter aluminum culvert. 30' Long	Install new 24" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
17	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
18	Proposed Ditch Relief	None	Install new 18" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to 12" avg. diameter or 1/10 ton.	Install "T" post at inlet side of culvert.
19	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ¼ ton.	Clean inlet of any obstructions.
20	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
21	Proposed Ditch Relief	None	Install new 18" PVC culvert x 40' long. Rock armor outlet and outfall with rip rap sized to 12" avg. diameter or 1/10 ton.	Install "T" post at inlet side of culvert.
22	Existing Class III Watercourse	24" Diameter aluminum culvert. 30' Long	Install new 24" PVC culvert x 60' long. Rock armor inlet and outlet/outfall with rip rap sized to average of 24" diameter or ½ ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
23	Existing Class III Watercourse	30" Diameter aluminum culvert. 30' Long	Install new 30" PVC culvert x 60' long. Rock armor inlet and outlet/outfall with rip rap sized to average of 24" diameter or ½ ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
24	Existing Class III Watercourse	24" Diameter aluminum culvert. 30' Long	Install new 24" PVC culvert x 60' long. Rock armor inlet and outlet/outfall with rip rap sized to average of 24" diameter or 1/4 ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
25	Existing Class III Watercourse	18" Diameter steel culvert. 30' Long	Install new 24" PVC culvert x 40' long. Rock armor inlet and outlet/outfall with rip rap sized to average of 24" diameter or 1/4 ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
26	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
27	Existing Ditch Relief	18" Diameter aluminum culvert. 30' Long	Maintain existing culvert. Rock armor outlet and outfall with rip rap sized to average of 12" diameter or 1/10 ton.	Clean inlet of any obstructions.
28	Existing Class III Watercourse	18" Diameter steel culvert. 30' Long	Install new 30" PVC culvert x 30' long. Rock armor inlet and outlet/outfall with rip rap sized to average of 24" diameter or 1/4 ton.	Install culvert as close to grade and orientation of watercourse channel as feasible. Install "T" post at inlet side of culvert.
29	Existing Class I Watercourse	90" Diameter steel culvert. 100' Long. Culvert has two 30 degree elbow bends	Install new 12' x 12' x 82' long precast concrete box culvert per engineering design and instructions.	Wingwalls of box culvert will be either precast concrete blocks or precast concrete wing walls. Other bank armoring/stabilization will be large rip rap dry fitted on fill slope.
30	Existing Road Crossing of a Class II Side Channel	No Existing Structure.	Install a new 9' squash culvert x 60' long. Rock armor the inlet and outlet	

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Watercourse Culvert Lengths

Existing Culverts:

- Class I = 100 feet
- Class III = 210 feet
- Total = 310 feet

Proposed Culverts:

- Class I = 82 feet (12x12' Concrete box culvert)
- Class II = 60 feet (9' squash culvert)
- Class III = 290 feet (24" culvert x 200' and 30" culvert x 90')
- Ditch Relief = 200 feet (18" culvert)

Watercourse Crossing Upgrade Specifications

- Culvert placement in line with natural watercourse channel grade and orientation.
- Culvert diameter sizes to accommodate 100 year flood flows with debris.
- Class I culvert will allow fish passage during all life stages.
- Fill slopes over culverts to be 1:1.5 or less
- Rock armoring of inlets and outlets. (250 Yards of ¼-1/2 Ton Rip Rap)

Railroad Gulch Crossing

The stream crossing at the mouth of Railroad Gulch was assessed by Ross Taylor and Associates in 2009 and determined to be a medium priority (third-most significant), partial fish passage barrier located within JDSF. The existing culvert is in poor condition and will only pass a 6-year flow event. The large crossing over main stem Railroad Gulch is approximately 150' above the confluence with Big River. ***This crossing is considered a velocity barrier to all juvenile salmonids and has been determined to be the third ranked fish barrier on JDSF lands (Ross Taylor and Associates, 2009, p. 94).*** A 5 acre lagoon exists approximately 300' upstream of this feature. The road at this location is built on the Big River floodplain and during moderately-low 3-year return interval flood events, Railroad Gulch backs up to a level above the floodplain/road surface and the culvert is underwater. Currently there is a 90" CMP with two 30 degree angle midway through the culvert at this location. The pipe is functioning, but is undersized for this stream setting, as well as being a fish barrier.

Construction Erosion Control Measures (JDSF Management Plan)

1. Road construction operations shall cease during periods of precipitation (rain and/or showers).
2. No heavy equipment operation after an accumulated 0.25 inches of precipitation within a 24 hour period.
3. Heavy equipment operation may resume after precipitation ceases and a stable operating surface exists in the area of operation.
4. All exposed and disturbed soils (other than rock) shall be stabilized with a layer of clean rice straw mulch with an average coverage of 95% and 4 inches thick.
5. The outer edge of the work area where water flow is directed and /or channeled shall have straw wattles installed.

Inside Road Ditches and Ditch Relief Culverts Upgrade Specifications

- Grade and re-establish inside ditch to an average depth of 12 inches.
- Disconnect ditches from watercourse crossing inlets.
- Addition of inside ditch cross drain culverts to limit concentration of water to single culverts.
- Rock armoring of outlets to limit downcutting of hill slopes below road and culverts.

Road Surface Treatments (Single Lane 16 Feet Wide)

- Raise roadbed by 4 feet in elevation (4200 yards of fill; 0.26 miles)
- Rock road surface (6" compacted depth of pit run rock (5600 yards) plus 2" of ¾" minus top lift road base (2100 yards); 2.67 miles)
- Double Chip Seal Road surface (2.67 miles)

Curve Re-Alignments

- CR 1: Realign the existing curve radius to improve access for commercial vehicles
- CR 2: Realign the road intersection to improve access for commercial vehicles.

Vehicle Turnouts

- Single vehicle turnouts are planned to be constructed approximately every 500 feet for safety. Turnouts are planned at natural open or wide areas of existing road prism which can either be utilized "as-is" or slightly modified to be functional as a turn out. Turn outs shall be one lane and between 100-200 feet in length.

Utility Relocations

- At least two locations underground utility vaults will need to be relocated to accommodate adequate space for a turn radius of the existing connector road and the raising of the road prism.

Revegetation and Monitoring Specifications

- Disturbed areas of greater than 100 sq.ft. will be stabilized with a combination of straw mulch, woody slash and straw wattles.
- Project completion documentation will confirm mitigations implemented through construction completion.
- Winter time inspections for erosion control effectiveness and minor repairs will occur during the following three winter period post construction.

Additional Benefits

CalFire will host at least one pre project and one post project tour to demonstrate the application of road hydrologic disconnect planning and construction techniques for historic road systems that are common in the North Coast Redwood region. CalFire will also create a publication that will summarize the project, including design, implementation and monitoring. The intent of the publication will be an informative document on the planning and implementation of a road sediment reduction project with a design element geared toward application of the California Forest Practice Rules, "Road Rules, 2013" package. This publication will offer important information to other forest land owners on specific road design features and associated costs to construct, and information to potentially apply to other forest road networks in need of upgrade and sediment reduction. This publication may also be presented to the State Board of Forestry and Fire Protection or groups such as the Noyo –Big River Watershed Coalition. MWCA's environmental education program is interested in developing a curriculum that focuses on this project and general subject of how roads

3/18/2019

cause watershed, water quality and aquatic species impacts, including interpretative signage at entrance kiosks and at trailheads near road.

Site Photos

Feature 720-29 (Railroad Gulch)



Ditch Drain and Watercourse Crossings





References and Supporting Documents

Initial Study/Mitigated Negative Declaration for the Proposed Jackson Demonstration State Forest Road 720 Upgrade Project, Mendocino California. June 25, 2018. Schedule #2018062051 (attachment)

California Department of Fish and Wildlife. Streambed Alteration Agreement Notification # 1600-2018-0236-R1. <https://ceqanet.opr.ca.gov/2018068658> (attachment)

Pacific Watershed Associates, 2013. Railroad Gulch Road 700 and 720 Sediment Source and Road Relocation Project, Mendocino County, California. PWA Report # 12093801.

Ross Taylor and Associates, 2009, Jackson State Forest Stream Crossing Inventory and Fish

3/18/2019

Passage Evaluation Final Report: 94 p.

Coastal Watershed Planning Assessment Program Big River Basin Assessment, November 2006

https://www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_1/2010/ref3706.pdf

CDFW Fisheries Survey, Railroad Gulch, 1996

Big River TMDL

https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/big_river/pdf/bigfinaltmdl.pdf

National Oceanic and Atmospheric Association Fisheries Recovery Plan: Big River

https://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/north_central_california_coast/central_california_coast_coho/bigriver_ii.pdf



COYOTE VALLEY

Band of Pomo Indians

March 8, 2019

North Coast Resource Partnership Grant Program
Katherine Gledhill
West Coast Watershed
kgledhill@westcoastwatershed.com

Dear North Coast Resource Partnership Grant Committee,

This letter confirms the Coyote Valley Band of Pomo Indians support for the Mendocino Woodlands Camp Association (nonprofit operator of the Mendocino Woodlands State Park at 39350 Little Lake Rd, Mendocino) North Coast Resource Partnership Grant proposal, Mendocino Woodlands State Park Sediment Reduction Project, to reduce sediment discharges into the Lower Big River Watershed by upgrading Road 720 within Jackson Demonstration State Forest. This project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid population. Additional tribal benefits from this proposal include cultural resources as the sedge grass and tan oak habitat would be improved with this project.

Thank you for your consideration and please do not hesitate to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Hunter".

Michael Hunter, Tribal Chairman
Coyote Valley Band of Pomo Indians

COMMITTEES
APPROPRIATIONS
BUSINESS AND PROFESSIONS
HEALTH
NATURAL RESOURCES
RULES

SELECT COMMITTEES
CHAIR: DIGITAL DIVIDE IN RURAL
CALIFORNIA
CAREER TECHNICAL EDUCATION AND
BUILDING A 21ST CENTURY WORKFORCE
WINE

Assembly California Legislature



JIM WOOD
ASSEMBLYMEMBER, SECOND DISTRICT

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0002
(916) 319-2002
FAX (916) 319-2102

DISTRICT OFFICES
50 D STREET, SUITE 450
SANTA ROSA, CA 95404
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FAX (707) 576-2297

710 E STREET, SUITE 150
EUREKA, CA 95501
(707) 445-7014
FAX (707) 455-6607

200 S SCHOOL STREET, SUITE D
UKIAH, CA 95482
(707) 462-5770
FAX (707) 463-5773

February 26, 2019

North Coast Resource Partnership Grant Program
Katherine Gledhill
West Coast Watershed
kgledhill@westcoastwatershed.com

Dear Ms. Gledhill:

I am writing in strong support of the Mendocino Woodlands Camp Association's North Coast Resource Partnership Proposition 1 Integrated Regional Water Management (IRWM) Grant Program grant proposal for the Mendocino Woodlands State Park Sediment Reduction Project. This project will ensure safe, year-round access to the Mendocino Woodlands while greatly reducing sediment into Railroad Gulch, a Class I stream and a tributary to Big River in the Lower Big River Watershed.

Since 1949, the Mendocino Woodlands Camp Association (MWCA), a 501(C)(3) nonprofit corporation, has operated and maintained the facilities at the Mendocino Woodlands State Park. When Senate Bill 1063 established the Mendocino Woodlands Outdoor Center to be held by State parks in 1976, the Bill stipulated that the Mendocino Woodlands Camps are to be operated by a nonprofit organization with environmental education as an integral part of its mission, confirming MWCA's role in park operations.

As one of California State Parks original nonprofit partners, MWCA has operated the 720-acre park and maintained over 171 National Historic Landmark structures at the Mendocino Woodlands for almost 70 years. MWCA has successfully completed a number of large-scale facility improvement projects over the years, including restoring the Camp 1 Dining Hall (supported in part by the Save America's Treasures grant), Camp 1 Dance Hall restoration, and replacement of 47 of the Camp 1 balconies (supported in part by a grant from the Community Foundation of Mendocino County), and provides road maintenance for Road 700 and 720 at the park.

Their work is a treasure to the community, to the California State Parks system, and to all who travel from throughout California and beyond to enjoy the natural beauty of our state.

Thank you for your consideration of this important project.

Respectfully,

A handwritten signature in black ink that reads "Jim Wood".

JIM WOOD
Assemblymember, 2nd District



March 6, 2019

North Coast Resource Partnership Grant Program
Katherine Gledhill
West Coast Watershed
kgledhill@westcoastwatershed.com

RE: Grant Application for the Mendocino Woodlands State Park Sediment Reduction Project

Dear Katherine Gledhill:

I am writing to express my support for the Mendocino Woodlands Camp Association's (MWCA) grant proposal to the North Coast Resource Partnership Proposition 1 Integrated Regional Water Management (IRWM) program.

Since 1949, the MWCA, a 501(C)(3) nonprofit corporation, has operated and maintained the facilities at the 720-acre Mendocino Woodlands State Park. Located within traditional Pomo territory near the village site Bu'ldam, the Mendocino Woodlands National Historic Landmark State Park is a year-round group camping facility and environmental education center nestled in the heart of the Redwood Forest, just Northeast of the town of Mendocino.

Receiving these funds for sediment reduction is essential to keep the park open and able to continue their mission of providing group camping and environmental education. The Mendocino Woodlands State Park Sediment Reduction Project will ensure safe, year-round access to the Mendocino Woodlands while greatly reducing sediment into Railroad Gulch, a Class I stream and tributary to Big River in the Lower Big River Watershed.

I urge you to give the MWCA's application your full consideration. If our office can be of any assistance, please do not hesitate to call us at 916-651-4002.

Warmest regards,

MIKE MCGUIRE
Senator



March 8, 2019

North Coast Resource Partnership Grant Program
Katherine Gledhill
West Coast Watershed
kgledhill@westcoastwatershed.com

Dear North Coast Resource Partnership Grant Committee,

California State Parks Sonoma Mendocino Coast District (DPR) strongly supports the Mendocino Woodlands Camp Association (MWCA) North Coast Resource Partnership Grant proposal, Mendocino Woodlands State Park Sediment Reduction Project, to reduce sediment discharges into the Lower Big River Watershed by upgrading Road 720 within Jackson Demonstration State Forest (JDSF).

Road 700 and Road 720, located within JDSF property (jurisdiction of CalFire), are the current dirt road access routes to the Mendocino Woodlands National Historic Landmark State Park (MWSP), which hosts over 10,000 diverse visitors and campers annually, including 1,000 youth who participate in MWCA's environmental education program, the Mendocino Outdoor Science School. The Mendocino Woodlands State Park Sediment Reduction Project will reduce sediment discharges from Roads 720 and 700 to surface water by: improving drainage on the road; directing this drainage away from streams; transferring vehicle travel to Road 720 (higher up on the hillslope), allowing for decommissioning of Road 700 (the only commercial vehicle, year-round access route to MWSP; Road 700 is adjacent to Railroad Gulch, a Class I stream and a tributary to Big River in the Lower Big River Watershed- the first large tributary of Big River upstream of the Pacific Ocean).

This vital project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid population. This letter indicates DPR's support of this project.

Thank you for your consideration and please do not hesitate to contact me with any questions.

Sincerely,

Terry Bertels
District Superintendent
Sonoma Mendocino Coast District California State Parks
12301 N. Hwy 1, Box 1, Mendocino, CA 95460
(707)937-2507 office (707) 937-2953 fax

**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

Jackson Demonstration State Forest
802 North Main Street
Fort Bragg, CA 95437
(707) 964-5674
Website: www.fire.ca.gov



March 8, 2019

North Coast Resource Partnership Grant Program
Katherine Gledhill
West Coast Watershed
kgledhill@westcoastwatershed.com

Dear North Coast Resource Partnership Grant Committee,

CAL FIRE strongly supports the Mendocino Woodlands Camp Association (MWCA) North Coast Resource Partnership Grant proposal, Mendocino Woodlands State Park Sediment Reduction Project, to reduce sediment discharges into the Lower Big River Watershed by upgrading Road 720 within Jackson Demonstration State Forest (JDSF).

Road 700 and Road 720 are on JDSF property and are the current dirt road access routes to the Mendocino Woodlands National Historic Landmark State Park (MWSP), which hosts over 10,000 diverse visitors and campers annually, including 1,000 youth who participate in MWCA's environmental education program, the Mendocino Outdoor Science School. *CAL FIRE will partner with MWCA and California State Parks on this project to reduce sediment discharges from Roads 720 and 700 to surface water by:* improving drainage on the road; directing this drainage away from streams; transferring vehicle travel to Road 720 (higher up on the hillslope), allowing for decommissioning of Road 700 (the only commercial vehicle, year-round access route to MWSP; Road 700 is adjacent to Railroad Gulch, a Class I stream and a tributary to Big River in the Lower Big River Watershed- the first large tributary of Big River upstream of the Pacific Ocean).

This vital project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives by providing ecosystem conservation and enhancement by restoring the Big River watershed and enhancing salmonid population. This letter indicates CalFire's support of this project and our match of \$250,474 for this project. Match will be in the form of in-kind staff contributions, road rock and heavy equipment time. This amount includes in-kind staff time for project administration, plans and permitting, construction oversight, construction, and monitoring for the Road 720 upgrades including the Railroad Gulch crossing.

Thank you for your consideration and please do not hesitate to contact me with any questions.

Sincerely,

Mike Powers, Deputy Chief (Forest Manager)

Notice of Determination

To: ☒ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: California Department of Forestry
and Fire Protection
P.O. Box 944246
Sacramento, CA 944246-2460

☐ County Clerk
County of _____

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

Jackson Demonstration State Forest Road 720 Upgrade Project

Project Title

Christina Snow

916-324-1639

*State Clearinghouse Number
(If submitted to Clearinghouse)*

*Lead Agency
Contact Person*

Telephone

SCH # 2018062051

Jackson Demonstration State Forest
Project Location (include county)

Mendocino County

Project Description: The project involves the reconstruction and sediment control upgrades to 2.5 miles of dirt Road 720 within Jackson Demonstration State Forest (JDSF). Work includes upgrading culverts, removal of unstable fill, installation and improvement of road turnouts, installation of new underground utilities, improvement of road drainage, installation of riprap, chip sealing and improvement of road bed.

This is to advise that the Department of Forestry and Fire Protection has approved the above described project on ☒ Lead Agency ☐ Responsible Agency and has made the following determinations regarding the above described project:


(Date)

1. The project (☐ will ☒ will not) have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures (☒ were ☐ were not) made a condition of the approval of the project.
4. A statement of Overriding Considerations (☐ was ☐ was not) adopted for this project.
5. Findings (☐ were ☐ were not) made pursuant to the provisions of CEQA.

This is to certify that the record of project approval is available to the General Public at:

(walk-in requests)
California Department of Forestry and Fire Protection
Resource Management – Environmental Protection
1416 Ninth Street, 15th Floor
Sacramento, CA 95814

(mail-in requests)
California Department of Forestry and Fire Protection
Resource Management – Environmental Protection
P.O. Box 944246
Sacramento, CA 94244-2460


Helge Eng
Deputy Director, Resource Management
CAL FIRE

8/3/18
Date

Governor's Office of Planning & Research

Date received for filing and posting at OPR:

AUG 14 2018

STATE CLEARINGHOUSE



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CalFire JDSF Road 720 Culvert Replacement (Lake or streambed alteration agreement no. 1600-2018-0236-R1)

Summary

SCH Number 2018068658

Lead Agency Fish & Wildlife 1E (Eureka) *(California Department of Fish and Wildlife, Region 1E)*

Document Title CalFire JDSF Road 720 Culvert Replacement (Lake or streambed alteration agreement no. 1600-2018-0236-R1)

Document Type NOE - Notice of Exemption

Received 6/27/2018

Document Description CDFW has executed Lake or streambed alteration agreement no. 1600-2018-0236-R1, pursuant to section 1602 of the fish and game code to Cal Fire represented by Robert Horvat. The project is limited to seven encroachments. It removes seven failing culverts, and replaces all of these culverts with appropriately sized and placed culverts.

Contact Information Andrew Orahoske
California Department of Fish and Wildlife, Region 1E
Eureka Office 619 Second Street
Eureka, CA 95501
707 441-2075

Location

Counties [Mendocino](#)

Notice of Exemption

Exempt Status Categorical Exemption

Type, Section or Code 15301

Reasons for Exemption The project replaces seven failing culverts with appropriately sized and placed culverts. There would be no significant adverse impact on endangered, rare or threatened species or their habitat pursuant to section 15065. There are no hazardous materials at or around the project site that may be disturbed or removed. The project would not constitute an expansion of use.

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STREAM INVENTORY REPORT

Railroad Gulch

INTRODUCTION

A stream inventory was conducted during the summer of 1996 on Railroad Gulch. The inventory was conducted in two parts: habitat inventory and biological inventory. The objective of the habitat inventory was to document the habitat available to anadromous salmonids in Railroad Gulch. The objective of the biological inventory was to document the presence and distribution of juvenile salmonid species.

The objective of this report is to document the current habitat conditions, and recommend options for the potential enhancement of habitat for coho salmon and steelhead trout. Recommendations for habitat improvement activities are based upon target habitat values suitable for salmonids in California's north coast streams.

WATERSHED OVERVIEW

Railroad Gulch is tributary to the Big River, tributary to the Pacific Ocean, located in Mendocino County, California (Map 1). Railroad Gulch's legal description at the confluence with Big River is T17N R17W S24. Its location is 39.3172 north latitude and 123.7000 west longitude. Railroad Gulch is a second order stream and has approximately one mile of blue line stream according to the USGS Mathison Peak 7.5 minute quadrangle. Railroad Gulch drains a watershed of approximately 1.7 square miles. Elevations range from about 40 feet at the mouth of the creek to 1000 feet in the headwater areas. Redwood forest dominates the watershed. The watershed is entirely within the Jackson Demonstration State Forest and is managed by the California Department of Forestry and Fire Protection for timber production and recreation. Vehicle access exists via Highway 1 to Caspar Little Lake Road to Jackson State Forest Road 772.

METHODS

The habitat inventory conducted in Railroad Gulch follows the methodology presented in the *California Salmonid Stream Habitat Restoration Manual* (Flosi and Reynolds, 1994). The California Conservation Corps (CCC) Technical Advisors and Watershed Stewards Project/AmeriCorps (WSP/AmeriCorps) Members that conducted the inventory were trained in standardized habitat inventory methods by the California Department of Fish and Game (DFG). This inventory was conducted by a two-person team.

SAMPLING STRATEGY

The inventory uses a method that samples approximately 10% of the habitat units within the survey reach (Hopelain, 1994). All habitat units included in the survey are classified according to habitat type and their lengths are measured. All pool units are measured for maximum depth. Habitat unit types encountered for the first time are further measured for all the parameters and characteristics on the field form. Additionally, from the ten habitat units on each field form page, one is randomly selected for complete measurement.

HABITAT INVENTORY COMPONENTS

A standardized habitat inventory form has been developed for use in California stream surveys and can be found in the *California Salmonid Stream Habitat Restoration Manual*. This form was used in Railroad Gulch to record measurements and observations. There are nine components to the inventory form.

1. Flow:

Flow is measured in cubic feet per second (cfs) at the bottom of the stream survey reach using standard flow measuring equipment, if available. In some cases flows are estimated.

2. Channel Type:

Channel typing is conducted according to the classification system developed and revised by David Rosgen (1985 rev. 1994). This methodology is described in the *California Salmonid Stream Habitat Restoration Manual*. Channel typing is conducted simultaneously with habitat typing and follows a standard form to record measurements and observations. There are five measured parameters used to determine channel type: 1) water slope gradient, 2) entrenchment, 3) width/depth ratio, 4) substrate composition, and 5) sinuosity.

3. Temperatures:

Both water and air temperatures are measured and recorded at every tenth habitat unit. The time of the measurement is also recorded. Both temperatures are taken in degrees Fahrenheit at the middle of the habitat unit and within one foot of the water surface.

4. Habitat Type:

Habitat typing uses the 24 habitat classification types defined by McCain and others (1988). Habitat units are numbered sequentially and assigned a type identification number selected from a standard list of 24 habitat types. Dewatered units are labeled "dry". Railroad Gulch habitat typing used standard basin level measurement criteria. These parameters require that the minimum length of a described habitat unit must be equal to or greater than the stream's mean wetted width. Channel dimensions were measured using hip chains, tape measures, and stadia

Railroad Gulch

rods. All units were measured for mean length; additionally, the first occurrence of each unit type and a randomly selected 10% subset of all units were sampled for all features on the sampling form (Hopelain, 1995). Pool tail crest depth at each pool unit was measured in the thalweg. All measurements were taken in feet to the nearest tenth.

5. Embeddedness:

The depth of embeddedness of the cobbles in pool tail-out reaches is measured by the percent of the cobble that is surrounded or buried by fine sediment. In Railroad Gulch, embeddedness was ocularly estimated. The values were recorded using the following ranges: 0 - 25% (value 1), 26 - 50% (value 2), 51 - 75% (value 3) and 76 - 100% (value 4). Additionally, a value of 5 was assigned to tail-outs deemed unsuited for spawning due to inappropriate substrate particle size, having a bedrock tail-out, or other considerations.

6. Shelter Rating:

Instream shelter is composed of those elements within a stream channel that provide salmonids protection from predation, reduce water velocities so fish can rest and conserve energy, and allow separation of territorial units to reduce density related competition. The shelter rating is calculated for each fully-described habitat unit by multiplying shelter value and percent cover. Using an overhead view, a quantitative estimate of the percentage of the habitat unit covered is made. All cover is then classified according to a list of nine cover types. In Railroad Gulch, a standard qualitative shelter value of 0 (none), 1 (low), 2 (medium), or 3 (high) was assigned according to the complexity of the cover. Thus, shelter ratings can range from 0-300 and are expressed as mean values by habitat types within a stream.

7. Substrate Composition:

Substrate composition ranges from silt/clay sized particles to boulders and bedrock elements. In all fully-described habitat units, dominant and sub-dominant substrate elements were ocularly estimated using a list of seven size classes and recorded as a one and two respectively.

8. Canopy:

Stream canopy density was estimated using modified handheld spherical densiometers as described in the *California Salmonid Stream Habitat Restoration Manual*. Canopy density relates to the amount of stream shaded from the sun. In Railroad Gulch, an estimate of the percentage of the habitat unit covered by canopy was made from the center of approximately every third unit in addition to every fully-described unit, giving an approximate 30% sub-sample. In addition, the area of canopy was estimated ocularly into percentages of coniferous or deciduous trees.

9. Bank Composition and Vegetation:

Bank composition elements range from bedrock to bare soil. However, the stream banks are

Railroad Gulch

usually covered with grass, brush, or trees. These factors influence the ability of stream banks to withstand winter flows. In Railroad Gulch, the dominant composition type and the dominant vegetation type of both the right and left banks for each fully-described unit were selected from the habitat inventory form. Additionally, the percent of each bank covered by vegetation was estimated and recorded.

BIOLOGICAL INVENTORY

Biological sampling during stream inventory is used to determine fish species and their distribution in the stream. In Railroad Gulch fish presence was observed from the stream banks, and four sites were electrofished using a Smith-Root Model 12 electrofisher. These sampling techniques are discussed in the *California Salmonid Stream Habitat Restoration Manual*.

DATA ANALYSIS

Data from the habitat inventory form are entered into *Habitat*, a dBASE 4.2 data entry program developed by Tim Curtis, Inland Fisheries Division, California Department of Fish and Game. This program processes and summarizes the data, and produces the following six tables:

- Riffle, flatwater, and pool habitat types
- Habitat types and measured parameters
- Pool types
- Maximum pool depths by habitat types
- Dominant substrates by habitat types
- Mean percent shelter by habitat types

Graphics are produced from the tables using Quattro Pro. Graphics developed for Railroad Gulch include:

- Riffle, flatwater, pool habitats by percent occurrence
- Riffle, flatwater, pool habitats by total length
- Total habitat types by percent occurrence
- Pool types by percent occurrence
- Total pools by maximum depths
- Embeddedness
- Pool cover by cover type
- Dominant substrate in low gradient riffles
- Percent canopy
- Bank composition by composition type
- Bank vegetation by vegetation type

HABITAT INVENTORY RESULTS

* ALL TABLES AND GRAPHS ARE LOCATED AT THE END OF THE REPORT *

The habitat inventory of October 17, 18, 22, and 23, 1996, was conducted by Mark Dombrowski and Craig Mesman (CCC). The total length of the stream surveyed was 5,683 feet with an additional 28 feet of side channel. Starting at 411 feet from the confluence with Big River, and extending upstream 1,526 feet, was a marshy area that was not surveyed.

Flow was measured at the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.06 cfs on October 18, 1996.

Railroad Gulch is an F4 channel type for the entire 5,683 feet of stream reach surveyed. F4 channels are entrenched, meandering, riffle/pool channels on low gradients with high width/depth ratios and gravel-dominant substrates.

Water temperatures taken during the survey period ranged from 45 to 53 degrees Fahrenheit. Air temperatures ranged from 38 to 57 degrees Fahrenheit.

Table 1 summarizes the Level II riffle, flatwater, and pool habitat types. Based on frequency of occurrence there were 22% riffle units, 36% flatwater units, and 42% pool units (Graph 1). Based on total length of Level II habitat types there were 10% riffle units, 52% flatwater units, and 36% pool units (Graph 2).

Eleven Level IV habitat types were identified (Table 2). The most frequent habitat types by percent occurrence were mid- channel pools, 33%; step runs, 21%; and low gradient riffles, 20% (Graph 3). Based on percent total length, step runs made up 30%, mid-channel pools 20%, and runs 11%.

A total of 75 pools were identified (Table 3). Main channel pools were most frequently encountered at 87% and comprised 78% of the total length of all pools (Graph 4).

Table 4 is a summary of maximum pool depths by pool habitat types. Pool quality for salmonids increases with depth. Twenty-two of the seventy-five pools (29%) had a depth of two feet or greater (Graph 5).

The depth of cobble embeddedness was estimated at pool tail-outs. Of the 75 pool tail-outs measured, 4 had a value of 1 (5.3%); 24 had a value of 2 (32%); 20 had a value of 3 (26.7%); 5 had a value of 4 (6.7%); and 22 had a value of 5 (29.3%) due to the substrate consisting of sand and gravel <0.5" (Graph 6). On this scale, a value of 1 indicates the highest quality of spawning substrate.

A shelter rating was calculated for each habitat unit and expressed as a mean value for each habitat type within the survey using a scale of 0-300. Flatwater habitat types had a mean shelter rating of 33 and pool habitats had a mean shelter rating of 21 (Table 1). Of the pool types, the backwater pools had the highest mean shelter rating at 30. Main channel pools had a mean

Railroad Gulch

shelter rating of 21 (Table 3).

Table 5 summarizes mean percent cover by habitat type. Small woody debris is the dominant cover type in Railroad Gulch. Graph 7 describes the pool cover in Railroad Gulch.

Table 6 summarizes the dominant substrate by habitat type. Gravel was the dominant substrate observed in 3 of the 4 low gradient riffles measured (75%). Silt and clay was the next most frequently observed dominant substrate type and occurred in 25% of the low gradient riffles (Graph 8).

The mean percent canopy density for the stream reach surveyed was 93%. The mean percentages of deciduous and coniferous trees were 36% and 64%, respectively. Graph 9 describes the canopy in Railroad Gulch.

For the stream reach surveyed, the mean percent right bank vegetated was 86.2%. The mean percent left bank vegetated was 83.3%. The dominant elements composing the structure of the stream banks consisted of 3.5% bedrock, 32.8% cobble/gravel, and 56.9% sand/silt/clay (Graph 10). Grass was the dominant vegetation type observed in 44.8% of the units surveyed. Additionally, 5.2% of the units surveyed had deciduous trees as the dominant vegetation type, and 15.5% had coniferous trees as the dominant vegetation, including down trees, logs, and root wads (Graph 11).

BIOLOGICAL INVENTORY RESULTS

Four sites were electrofished on October 23, 1996, in Railroad Gulch. The sites were sampled by Mark Dombrowski and Craig Mesman.

The first site sampled was habitat unit 113, a confluence pool approximately 5,595 feet from the confluence with Big River. This site had an area of 168 sq. ft. and a volume of 168 cu. ft. The site yielded 3 steelhead and 5 coho.

The second site included habitat units 162 through 167, a step run, mid-channel pool, run, riffle, run and mid-channel pool located approximately 6,943 feet above the creek mouth. The site yielded 6 coho and 1 salamander.

The third site sampled is located approximately 80 feet above the end of the survey. It is 140 feet long and consists of runs and pools. The site yielded no fish.

The fourth site sampled is located approximately 450 feet above the end of the survey. It is 300 feet long and consists of runs and pools. The site yielded no fish.

DISCUSSION

Railroad Gulch is a F4 channel type for the entire 5,683 feet of stream surveyed. The suitability of F4 channel types for fish habitat improvement structures is as follows: good for bank placed boulders; fair for low stage weirs, single and opposing wing deflectors, channel constrictors and log cover; poor for medium stage weirs and boulder clusters.

The water temperatures recorded on the survey days October 17, 18, 22, 23, 1996 ranged from 45 to 53 degrees Fahrenheit. Air temperatures ranged from 38 to 57 degrees Fahrenheit. This is a good water temperature range for salmonids. However, to make any further conclusions, temperatures would need to be monitored throughout the warm summer months, and more extensive biological sampling would need to be conducted.

Flatwater habitat types comprised 52% of the total length of this survey, riffles 10%, and pools 36%. The pools are relatively shallow, with only 22 of the 75 (29.3%) pools having a maximum depth greater than 2 feet. In general, pool enhancement projects are considered when primary pools comprise less than 40% of the length of total stream habitat. In first and second order streams, a primary pool is defined to have a maximum depth of at least two feet, occupy at least half the width of the low flow channel, and be as long as the low flow channel width. Installing structures that will increase or deepen pool habitat is recommended.

Forty-seven of the seventy-five pool tail-outs measured had embeddedness ratings of 3, 4, or 5. Only 4 had a 1 rating. Cobble embeddedness measured to be 25% or less, a rating of 1, is considered to indicate good quality spawning substrate for salmon and steelhead. In Railroad Gulch, sediment sources should be mapped and rated according to their potential sediment yields, and control measures should be taken.

The mean shelter rating for pools was low with a rating of 21. The shelter rating in the flatwater habitats was slightly better at 33. A pool shelter rating of approximately 100 is desirable. The relatively small amount of cover that now exists is being provided primarily by small woody debris in all habitat types. Additionally, large woody debris contributes a small amount. Log and root wad cover structure in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat. Log cover structure provides rearing fry with protection from predation, rest from water velocity, and also divides territorial units to reduce density related competition.

Three of the 4 low gradient riffles measured had gravel as the dominant substrate. This is generally considered good for spawning salmonids.

The mean percent canopy density for the stream was 93%. This is a relatively high percentage of canopy. In general, re-vegetation projects are considered when canopy density is less than 80%.

The percentage of right and left bank covered with vegetation was high at 86.2% and 83.3%, respectively. In areas of stream bank erosion or where bank vegetation is not at acceptable

Railroad Gulch

levels, planting endemic species of coniferous and deciduous trees, in conjunction with bank stabilization, is recommended.

RECOMMENDATIONS

- 1) Railroad Gulch should be managed as an anadromous, natural production stream.
- 2) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from small woody debris. Adding high quality complexity with woody cover is desirable and in some areas the material is locally available.
- 3) Active and potential sediment sources related to the road system need to be identified, mapped, and treated according to their potential for sediment yield to the stream and its tributaries.
- 4) The limited water temperature data available suggest that maximum temperatures are within the acceptable range for juvenile salmonids. To establish more complete and meaningful temperature regime information, 24-hour monitoring during the July and August temperature extreme period should be performed for 3 to 5 years.
- 5) Where feasible, design and engineer pool enhancement structures to increase the number of pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

COMMENTS AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and measured from the beginning of the survey reach.

Position (ft):	Comments:
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0'	Begin survey at confluence with Big River. Channel type is F4.
189'	Corrugated metal culvert is 86' long x 6' wide.
411'	Marshy pond habitat 1,526' long with no stream channel.
3,231'	Right bank tributary.
3,351'	Left bank trickling tributary.
4,361'	Right bank dry tributary.

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5,405'	Left bank tributary.
5,572'	Log debris accumulation is 15' long x 6' wide x 3.5' high.
6,049'	Log foot bridge.
6,311'	Right bank flowing tributary.
6,421'	Large woody debris is clogging channel and retaining 3' of sediment. Old log cribbing on the left bank.
7,011'	Woody debris in channel retains 2' deep gravel.
7,397'	End of survey. Right bank tributary contributes half of flow. The main stem becomes intermittent within the next several hundred feet. Two sites were electrofished above the end of survey and no fish were found.
7,432'	A wooden footbridge crosses the creek.

REFERENCES

Flosi, G., and F. Reynolds. 1994. California salmonid stream habitat restoration manual, 2nd edition. California Department of Fish and Game, Sacramento, California.

Hopelain, J. 1995. Sampling levels for fish habitat inventory, unpublished manuscript. California Department of Fish and Game, Inland Fisheries Division, Sacramento, California.

LEVEL III and LEVEL IV HABITAT TYPE KEY

HABITAT TYPE	LETTER	NUMBER
RIFFLE		
Low Gradient Riffle	[LGR]	1.1
High Gradient Riffle	[HGR]	1.2
CASCADE		
Cascade	[CAS]	2.1
Bedrock Sheet	[BRS]	2.2
FLATWATER		
Pocket Water	[POW]	3.1
Glide	[GLD]	3.2
Run	[RUN]	3.3
Step Run	[SRN]	3.4
Edgewater	[EDW]	3.5
MAIN CHANNEL POOLS		
Trench Pool	[TRP]	4.1
Mid-Channel Pool	[MCP]	4.2
Channel Confluence Pool	[CCP]	4.3
Step Pool	[STP]	4.4
SCOUR POOLS		
Corner Pool	[CRP]	5.1
Lateral Scour Pool - Log Enhanced	[LSL]	5.2
Lateral Scour Pool - Root Wad Enhanced	[LSR]	5.3
Lateral Scour Pool - Bedrock Formed	[LSBk]	5.4
Lateral Scour Pool - Boulder Formed	[LSBo]	5.5
Plunge Pool	[PLP]	5.6
BACKWATER POOLS		
Secondary Channel Pool	[SCP]	6.1
Backwater Pool - Boulder Formed	[BPB]	6.2
Backwater Pool - Root Wad Formed	[BPR]	6.3
Backwater Pool - Log Formed	[BPL]	6.4
Dammed Pool	[DPL]	6.5

