

Restoration of Lower Klamath River Habitats — Yurok Tribal Fisheries Program

YUROK TRIBE



STATEMENT OF THE PROBLEM

In the Lower Klamath River, Euro-American land use activities since the mid-1850s have caused drastic declines to fish runs and degraded habitats. Past agricultural practices and intense timber harvest and road-building activities have greatly simplified Lower Klamath watersheds. Large floods occurring over the last 150 years have exacerbated degraded watershed conditions by increasing rates of riparian loss, channel widening, and valley aggradation. Although conditions have been improving due to improved forest practices and ongoing upslope and instream restoration, the severe loss of habitat complexity and channel structure remains a primary limitation to the survival of native fish of the Lower Klamath, especially salmonids.

PROJECT GOALS

1. Enhance and restore native salmonid populations through a process-based approach
2. Promote economic stimulus to disadvantaged communities
3. Support implementation actions in the Klamath River TMDL Action Plan
4. Continue providing an inclusive framework for intra-regional cooperation, planning, and implementation

THE SOLUTION

The project restores spawning and rearing habitat for native salmonids and increases riparian forest resiliency on two miles in two priority Lower Klamath tributaries: Terwer Creek and Hunter Creek.

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

Project activities include: building constructed wood jams, implementing bioengineering techniques (willow baffles), and riparian revegetation in Hunter and Terwer creeks. Physical and biological monitoring will be conducted to assess project effectiveness and to help guide future restoration efforts. The Yurok Tribal Fisheries Program will immediately address known limiting factors and facilitate self-maintaining processes to ensure long-term benefits to native salmonids and the Yurok who rely on them for cultural, subsistence, and economic purposes. These actions will provide an economic stimulus to disadvantaged communities by providing employment to Tribal staff and patronizing local businesses.

PROJECT BUDGET

IRWM funds:	\$ 421,354
Leveraged funds:	\$ 776,914
TOTAL	\$ 1,198,268

BENEFITS

Economic

- Approximately \$777,505 over 50 years for use and passive use values associated with increased salmonid populations
- Approximately \$2,744 per year for avoided costs associated with reduction in sediment deposition
- Approximately \$48,229 over 50 years for passive use value associated with increased riparian habitat
- Approximately \$2,864 over 50 years for ecosystem services provided by enhanced and increased wetlands
- Approximately \$11,650 over 50 years for avoided costs of climate change from carbon sequestration

Groundwater

- The project's restoration techniques are expected to increase groundwater recharge

Water Quality

- Improved water quality will benefit the 303(d) listed Lower Klamath River and Hunter and Terwer Creeks

Cultural and Social

- Outreach for this project will increase public understanding of and support for watershed enhancement projects
- Increased community support for and participation in future projects will make restoration projects easier to implement and less costly
- The project will reduce wood piracy by increasing channel complexity, limiting vehicle access, working with stakeholders and agencies to improve awareness and law enforcement, and fostering stewardship
- Increased salmonid populations confer cultural benefits; a healthy river and robust salmon fishery are central to the Yurok tradition, cultural practices and well-being

Jobs and Local Economy

- Nearly \$1.2 million will be spent locally using local labor and supplies when possible, thus contributing to State goals for environmental justice and social equity
- At least 10 high quality, resource-based jobs will be maintained

NEXT STEPS & RECOMMENDATIONS

Although this project is a stand-alone effort, it is part of a larger-scale effort by the Yurok Tribe to restore Klamath Basin habitats to levels that will support viable, robust populations of anadromous fish.

CONTACT

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