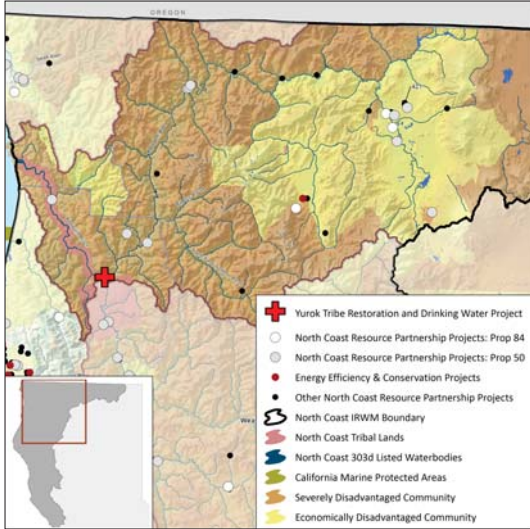


Yurok Watershed Restoration and Drinking Water Security

YUROK TRIBE



COMPLETION DATE

January 2020

STATEMENT OF THE PROBLEM

Lower Klamath habitats have been significantly impacted and fish stocks continue to decline due to land use activities occurring since the mid-1800s. Declining fish numbers and alterations to flow resulting from dam operations in the upper parts of the basin have significantly impacted tribal members' ability to sustain their livelihoods. The Yurok Reservation is extremely remote and surface water has been the main source of water for tribal members for many years. Households relying on creeks for their drinking water are diverting >25% of instream flow during the driest summer months (August-September), which further impacts the fisheries these communities rely on.

PROJECT GOALS

- Improved water supply reliability for a state-recognized Disadvantaged Community
- Enhance and restore native salmonid populations
- Enhance the economic vitality of the Yurok Tribe

THE SOLUTION

This project will install 3-2500 gallon tanks and filter systems to provide Tribal landowners with water storage capabilities to provide adequate supplies of filtered drinking water during the driest part of the year (August-September), and eliminate summer diversions to provide increased thermal refugia benefits. This is a pilot program and upon successful implementation it will be expanded to increase water security throughout the sub-basin. The salmonid habitat restoration component consists of designing and implementing feasible, effective instream and riparian habitat restoration in Blue Creek, and decommissioning priority legacy roads and stream crossings in Turwar Creek to provide long-term water quality benefits for all residents of the Lower Klamath Sub-basin.

PROJECT IMPLEMENTATION

Project design and environmental documentation were completed summer 2016. Permitting and landowner agreements will be completed in spring 2017 with construction and implementation activities beginning in summer 2017 and completed by winter 2019.

PROJECT BUDGET

| | |
|------------------|-------------------|
| IRWM funds: | \$ 702,463 |
| Leveraged funds: | \$ 260,211 |
| TOTAL | \$ 962,674 |

BENEFITS

Economic Benefits

- An estimated \$16,164 in benefits associated with prevention of sedimentation
- About \$8,000 per year in avoided costs of water purchases

Water Quality

- Improved water quality due to 2,694 tons per year of sediment being prevented from entering aquatic habitat

Water Supply

- Increased water supply of 0.2 acre-feet per year

Habitat and Ecosystem Function Benefits

- Species protection for coho (*Oncorhynchus kisutch*), steelhead (*Oncorhynchus mykiss*), Chinook (*Oncorhynchus tshawytscha*) and coastal cutthroat trout (*Oncorhynchus clarkia clarkii*)
- Aquatic habitat restoration through 1) installation of constructed wood jams using whole trees to improve stream hydrologic function and promote beneficial geomorphic processes (i.e. improved sediment sorting/retention dynamics), and 2) improved hydrologic function and habitat conditions through road decommissioning and stream crossing removal efforts.
- Riparian habitat restoration through the planting of native trees and use of bioengineering techniques (i.e. willow revegetment treatments) to increase forest complexity and resiliency and to reduce stream velocities and bank erosion.

Cultural Benefits

- Sustaining the Yurok Tribe's subsistence and cultural relationship with the Klamath River and its resources
- Community resiliency to climate change challenges through development of alternative water supply sources and strengthening the Klamath River ecosystem

Jobs and Local Economic Benefits

- Nearly \$1 million spent locally using local supplies and labor when possible
- About 10 jobs created/ maintained

NEXT STEPS

The Yurok Tribe will continue to diversify water sources to provide water supply reliability and good quality drinking water to Tribal members. It will also continue to play a leading role in restoring the salmon fishery and ecosystem health to the Klamath River Basin.

CONTACT

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ACKNOWLEDGEMENTS

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NORTH COAST RESOURCE PARTNERSHIP