

# Eel River Habitat Workshop Summary

NOAA Fisheries hosted a workshop focused on engaging the recreational fishing community in fish habitat conservation in the Eel River, California. The Eel River is the largest coastal watershed in California and is essential for recovery of threatened Chinook and coho salmon and steelhead. The area has a strong presence of recreational fishing as well as fish passage, river, and estuary restoration projects. The workshop provided an opportunity for NOAA to share information about its habitat activities in the Eel River, for anglers and partners to share their habitat conservation priorities, and to identify areas for future collaboration. Workshop goals included:

- Identify topic areas where NOAA's interests and expertise around habitat conservation align with the priorities of the recreational fishing community.
- Identify potential collaborative project concepts and/or research priorities.
- Raise awareness among recreational fishing groups of NOAA's habitat conservation work, including restoration, monitoring, and research.
- Increase NOAA's understanding of habitat issues of greatest importance to the recreational fishing community.

The workshop was hosted virtually on March 31, 2021. Participants included private anglers, fishing guides, and representatives from recreational fishing groups, California Dept. of Fish and Wildlife, tribal partners, land management organizations, non-governmental organizations, and others. Prior to the meeting, participants shared their habitat-related concerns in the Eel River, which included lack of habitat complexity, invasive pikeminnow, high water temperatures that are stressful/lethal for salmonids, diversions and drought, and dams that restrict fish passage as common priorities.

At the beginning of the workshop, NOAA staff gave a presentation on current habitat restoration and conservation efforts in the Eel River, and opportunities for angler involvement. There are several large scale efforts underway that aim to improve habitat conditions including tidal and freshwater restoration of the estuary (Salt River and Ocean Ranch Restoration Projects), planning that will lead to improvement of holding areas just upstream of the tidal interface, and opportunities to improve conditions through the Potter Valley Project relicensing. The SHaRP (Salmon Habitat Restoration Priorities) effort that was recently completed in the South Fork of the Eel River and is just getting started in the Lower Eel provides an opportunity for angler involvement. The group then moved into breakout groups to discuss opportunities for future collaborative work to improve habitat in the Eel River.



## Major takeaways from the discussions:

**Importance of a big-picture, coalition-based approach to restoration.** All of the partners in the watershed have the same goals, and developing a clear strategy to achieve those goals will require bringing together federal and state agencies, recreational anglers, NGOs, landowners, and others. The group also discussed opportunities to work more strategically with partners including private landowners in the estuary and CalTrans, both of which are facing challenges from sea level rise and flooding, as well as groups like the California Conservation Corps and recreational fishing groups and volunteers.

**Importance of public education and engagement.** There is a need to inform the local public about the restoration work going on in the Eel River, particularly with regards to what activities improve or reduce habitat complexity. Several of the workshop participants are engaged in research to understand what the river looked like historically, which could be used to demonstrate to the public how it has changed (e.g., changing location of banks, terraced erosion, growth of scour-resistant vegetation) and what restoration needs to be done.

**Focus on the Lower Eel and estuary.** Intact estuarine habitat is an essential component of recovery for all populations of salmon and steelhead in the Eel River. The group discussed concerns about hydrologic connection and the tidal prism, and a lack of sediment conveyance. Restoration of the estuary plays an important role in increasing the size of salmon migrating out of the river, which contributes to greater ocean survival. In the Lower Eel, there are opportunities for habitat restoration including addressing sediment inputs, improving habitat complexity, and working with private landowners to identify additional opportunities to improve tidal prism and sediment conveyance in the estuary. In addition, the group discussed protection of areas that have retained healthy habitat

**Install habitat structures in the Lower Eel:** Large woody debris, log jams, and boulders are important features that improve fish holding habitat, provide protection from predation, and promote habitat forming processes in the river. The group discussed opportunities to design a structure in the Lower River that would be resilient to high flows and would consider the history that past large wood structures have been stolen. In addition to providing valuable habitat, this would also be visible to anglers and could provide an important opportunity to demonstrate the value of large habitat structures in the Eel River.

**Long-term support for DIDSON monitoring:** DIDSON sonar “cameras” are installed in the Eel River to monitor salmon populations and provide information for recovery efforts. The group discussed the importance of long-term funding for the DIDSON network, as well as a strong interest in expanding the network with new stations in the watershed.

**Continue angler engagement in monitoring:** Anglers can play an important role in monitoring native and non-native fish populations, both native and non-native fish, and water /quality /runoff, and provide important data for restoration and recovery.

**Pikeminnow suppression:** Invasive pikeminnow are a significant problem in the Eel River, and anglers are interested in becoming more involved in suppression of the pikeminnow population. The Wiyot tribe is engaged in ongoing monitoring and suppression efforts, which may provide additional volunteer opportunities. There was also a suggestion that a program be developed to incentivize pikeminnow removal by recreational anglers, particularly in the lower river.

**Consider a conservation hatchery program:** While there has been significant restoration work in the Eel River watershed, salmon populations are not recovering as expected. The recreational fishing community is interested in exploring a conservation hatchery program and/or a hatch box program to help meet population goals.

## Links and subject area contacts

West Coast Habitat overview

NOAA Office of Habitat Conservation, How We Restore and Funding Opportunities

Salmon Habitat Restoration Priorities (SHaRP) in the Eel River

- South Fork Eel SHaRP - The SF Eel SHaRP Restoration Plan and web page url will be released by May 30 2021. For more information contact [Julie.Weeder@noaa.gov](mailto:Julie.Weeder@noaa.gov)
- Lower Eel SHaRP - For more information contact [Christopher.Loomis@wildlife.ca.gov](mailto:Christopher.Loomis@wildlife.ca.gov)
- CDFW North Coast Salmon Project

Eel River Population Monitoring

- CalFish - Monitored Rivers North Coast
- For more information contact [David.Kajtaniak@wildlife.ca.gov](mailto:David.Kajtaniak@wildlife.ca.gov)

## Partners and Efforts

- CDFW Northern Region
- CalTrout North Coast Region
- Trout Unlimited North Coast Coho Project
- Wiyot Tribe Fisheries Projects
- Eel River Recovery Project
- Eel River Watershed Improvement Group (ERWIG)
- Humboldt County Resource Conservation District
- California Conservation Corps Fortuna Center
- Friends of the Eel River
- Fishing the North Coast with Kenny Priest
- Humboldt Area Saltwater Anglers
- Nor-Cal Guides and Sportsmen's Association
- Humboldt Redwood Company
- Lawrence Creek off-channel projects video
- A Rivers Last Chance, North Fork Studios