

Klamath River Adult Fish Monitoring Above Iron Gate Dam Site

October 2024

Klamath River Renewal Corporation and its restoration contractor, Resource Environmental Solutions (RES), are collaborating with Tribes, nonprofit conservation organizations, and state and federal agencies to monitor, track, and measure the impacts of Klamath River dam removal and related restoration efforts on migratory fish populations. Several of these efforts are described briefly here.

Fish Counting Above Iron Gate Dam Site Using SONAR and Telemetry

A large and diverse project team has installed a SONAR station at the former Iron Gate Dam site to count how many fish pass through and to determine what anadromous species are migrating into the reconnected habitat. Tangle netting will be used to facilitate fish tagging and provide additional information about which species are migrating past the SONAR station. A network of radio telemetry stations have been installed upstream to detect acoustic tags placed during the netting process and will help track tagged salmon and steelhead movements throughout the Upper Basin. This information will help manage the fishery and guide future restoration and monitoring efforts.

Participating Organizations: California Trout, Yurok Tribe, Karuk Tribe, Klamath Tribes, Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Wildlife (CDFW), NOAA Restoration, NMFS Science Center/UC Santa Cruz, Keith Denton and Associates, Cal Poly Humboldt, U.S. Fish and Wildlife Service (USFWS), Klamath River Renewal Corporation, RES, UC Davis, U.S. Geological Survey (USGS), and Ridges to Riffles.

Funders: Humboldt Area and Wild Rivers Community Foundation, Bella Vista Foundation, Bureau of Reclamation (BOR), NOAA Fisheries, and U.S. Fish and Wildlife Service.

Carcass/Spawner Surveys

Scientists, resource managers, and the Tribes will conduct visual surveys of spawning salmon and redds (salmon egg nests) to understand where fish are spawning. Scales and genetic material will be collected to assess the age of these fish. Live fish, carcasses, and redds are being counted. Data collected will be used for annual management purposes and is foundational information feeding into fall Chinook salmon cohort reconstruction and ocean abundance forecasting, which will be the basis for 2025 fisheries planning. Information also supports coho salmon habitat use and population monitoring.

Participating Organizations: Karuk Tribe, Yurok Tribe, ODFW, CDFW, and USFWS.

Funders: USFWS and BOR.

Fall Creek Hatchery Return Monitoring

CDFW built a new hatchery at Fall Creek, to accommodate the loss of the hatchery that previously stood below Iron Gate Dam. In anticipation of the dam removal, CDFW raised a portion of the Chinook salmon from brood years 2020 and 2021 at Fall Creek to help reintroduce them to the area. CDFW will assess how many fish have returned to the new Fall Creek hatchery site and collect additional data related to the age of the returning fish.

Technical Team: CDFW, USFWS (partial list).

Funder: PacifiCorp (former owner of the Lower Klamath Hydroelectric Project).

Video Weirs

Video weirs have been installed to help count fish on individual tributaries to the reservoir reach in California and will provide robust estimates of fish numbers. Upstream of the former Iron Gate Dam site video weirs are located on Jenny Creek and Shovel Creek. Additional video weirs have also been in operation downstream of the former dam site in Scott River, Shasta River, and Bogus Creek.

Technical Team: CDFW.

Funders: CDFW, USFWS Sportfish Restoration Program, and NOAA Fisheries Pacific Coastal Salmon Recovery Fund.

Lower Klamath Project – Fish Passage Monitoring

RES is responsible for monitoring fish passage through the Lower Klamath Project (LKP) as prescribed in the Reservoir Area Management Plan, Tributary-Mainstem Connectivity Plan, and Oregon Fish Passage Authorization within certain reaches of the mainstem Klamath River and its tributaries. This monitoring requirement was part of the plan approved by federal regulators when they approved the license surrender order for the LKP. This monitoring work began in 2024 and will continue through at least 2029.

Technical Team: RES.

Funder: KRRC.

Lower Klamath Project – Fish Presence Monitoring (Fish Presence Plan)

RES is also responsible for fulfilling LKP management plan and NMFS Biological Opinion requirements to document the presence of anadromous fish throughout the

historic hydroelectric reach. This effort includes a combination of field surveys, environmental DNA sampling, and coordination with state and federal resources agencies and Tribes conducting fisheries monitoring work in this reach of the watershed. Fish presence monitoring has already begun and will continue at least through 2029.

Technical Team: RES.

Funder: KRRC.

Water Quality Monitoring

The Karuk Tribe Water Quality Department along with the Yurok Tribe Environmental Program and USGS are the primary subcontractors responsible for pre- and post-dam removal monitoring of sediment and water quality. This group, along with KRRC and RES, has been working together to monitor and measure water quality conditions in the Klamath River since 2018. The Karuk Tribe has provided viewing of continuous monitoring data via its [water quality website](#).

Technical Team: Karuk Tribe, USGS, USFWS, RES, Yurok Tribe, and Klamath Tribes.

Funder: KRRC.

Participating Organizations – Links to Additional Resources

Bureau of Reclamation

California Department of Fish & Wildlife

[California Trout](#)

[Karuk Tribe](#)

Klamath Tribes

[NOAA Fisheries](#)

[Oregon Department of Fish & Wildlife](#)

[Resource Environmental Solutions \(RES\)](#)

[Ridges to Riffles](#)

[U.S. Fish & Wildlife Service](#) (USFWS)

Yurok Tribe

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