



Fisheries Monitoring and Assessment

Monitoring of Outmigrant Juvenile Salmonids in the Trinity River Basin

Background:

- In 1989, the Arcata Fish & Wildlife Office (AFWO) began monitoring the abundance, timing, hatchery/natural composition, and condition of juvenile salmon and steelhead outmigrating from the Trinity River.
- The Trinity River Flow Evaluation Study used these data to develop flow schedules conducive to smolt temperature criteria, which were adopted in the 2000 Record of Decision for the Trinity River EIS/ROD.
- In 2001, monitoring was expanded through a joint partnership with the Hoopa Valley and Yurok Tribes.
- To facilitate consistency and expedite analyses, AFWO staff developed an integrated database and analytical programs for processing outmigrant trapping data. This system has been shared with our Tribal partners and is being used by the Trinity River Restoration Program as a prototype for other database and analytical systems.



Current Program:

- Monitoring is being implemented in the lower river near Willow Creek by the AFWO and the Yurok Tribe Fisheries Program, and in the upper river near the North Fork Trinity River by the Hoopa Valley Tribe Fisheries Department.
- Juvenile outmigrant monitoring provides the Restoration Program with information on the abundance and outmigration timing of anadromous

salmonids, hatchery/natural stock production, and basic biological information needed to assess success of flow and habitat restoration actions.

Program Challenges:

- Developing precise population estimates of salmonid outmigrants has been a challenge due to the small proportion of the river that can be effectively sampled.
- Sampling during high spring flows (>10,000 cfs) is difficult because of physical limitations of the traps, large debris loads, and physical safety to field crews.
- Smolt outmigrant trapping is expensive, as it requires considerable staffing by field personnel.

Current Status:

- A five-year status report for the lower trapping operation has been completed and is undergoing an external review prior to its release, scheduled for February 2007.
- An independent review of the TRRP trapping program is being initiated in 2007. This review will evaluate the effectiveness of the trapping program at meeting TRRP objectives, and provide critical input for sample design considerations.

