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Mid-Pacific Region, Trinity River Restoration Program

Background

The Trinity River begins in the rugged Trinity Alps in northwestern California. On its journey, it tumbles through steep canyons and meanders through broad valleys until it joins with the Klamath River to flow into the Pacific Ocean.

This powerful river once supported large populations of fall-and spring-run Chinook salmon, as well as smaller runs of Coho salmon and steelhead. Floods, as predictable as the salmon, refreshed spawning gravels, scoured deep holes—connected the river with the floodplain which provided important habitat for salmon. For thousands of years, the Hoopa and Yurok tribes used the fish, plants and animals in and along the Trinity River for subsistence, cultural, ceremonial and commercial purposes.



Trinity River, above the dams, near Eagle Creek

Historical Impacts

“GOLD!” discovery in the late 1840s marked the start of drastic changes in the

Trinity River and its watershed. Small-scale placer mining, like panning and sluicing, was mostly replaced by more efficient hydraulic and dredger mining by the early 1900s and continued through the 1950s.

From the beginning, miners, homesteaders and others making their living in Trinity County logged the hillsides and valleys for lumber and firewood. In the 1950s, industrial logging began in earnest. In sensitive areas of the watershed, such as Grass Valley Creek, highly erodible granitic soils were left unprotected and large volumes of sand washed into the Trinity River, smothered salmon spawning gravel, filled in pools and created large, dynamic deltas.

Even with all of these disturbances, the Trinity River had adequate flows and habitat, and salmon and steelhead continued to return in numbers. In 1958, a plan was executed to increase water supplies in California’s Central Valley in part by transferring water from the Trinity River into the Sacramento River. By the end of 1960, the Trinity River Division (TRD) of the Central Valley Project began a decades-long era wherein up to 90 percent of the river’s flow was exported from the river each year. The river slowed, allowed trees and vegetation to crowd the channel margin and capture sediment building large berms. This in combination with the remnant mine tailing piles formed a channelized river with little juvenile salmon habitat.

Restoring Salmon and Steelhead Populations

The impacts of land use, dams and very low flows combined to push the river past its regenerative capacity. By 1970, less than 10 years after the dams were completed, the extent of habitat alteration and decline in salmon and steelhead populations became obvious.

Intent on reversing the decline, the U.S. Fish and Wildlife Service, Hoopa Valley Tribe and other agencies began studies that culminated in the *Trinity River Flow Evaluation Study*. Completed in June 1999, this study is the foundation of the Trinity River Restoration Program (TRRP) which is designed to restore the Trinity River and its populations of salmon, steelhead and other fish and wildlife by restoring the attributes that produce a healthy, functioning river system.

Record of Decision

The TRRP (Program) was created by the Record of Decision (ROD) in 2000, which outlines the plan for restoration of the Trinity River and its fish and wildlife populations. It was the result of nearly 20 years of studies of the Trinity River and its fishery resources that culminated in the Trinity River Flow Evaluation Final Report (of the *Trinity River Flow Evaluation Study*) and the Trinity River Mainstem Fishery Restoration Environmental Impact Statement/Environmental Impact Report (Trinity EIS/EIR), completed in 2000. The latter is the NEPA/CEQA (National Environmental Policy Act of 1969; California Environmental Quality Act of 1970) document upon which the ROD was based.

The Program's restoration strategy includes the following elements:

- **Flow Management** – a variable flow regime based on five (5) water year types ranging from critically dry to extremely wet mimics more natural flows with spring peaks;
- **Mechanical Channel Rehabilitation** – numerous channel rehabilitation projects along the Trinity River designed to reshape the current channel form to re-establish the physical processes that create and maintain diverse fish habitat;
- **Sediment Management** – gravel augmentation below Lewiston Dam to provide the materials necessary to form bars and other elements of habitat complexity;
- **Watershed Restoration** – a cooperative strategy to reduce fine sediment input to the Trinity River;
- **Infrastructure Improvements** – modification of infrastructure in the floodplain to accommodate peak restoration flows;
- **Adaptive Environmental Assessment and Monitoring** – a rigorous science-based monitoring and analysis program to improve restoration activities through adaptive management;
- **Environmental Compliance and Mitigation** – measures to minimize or eliminate short-term environmental impacts on the river and dependent species including riparian wildlife and vegetation.

Rather than recreating pre-dam conditions, the goal of these strategies is to create a

dynamic alluvial river that exhibits all the characteristics of the pre-dam river, but at a smaller scale.

Legislative History

As populations and development increased in California, particularly in the Central Valley, efforts focused on the Trinity River as a resource to supplement the needs of other areas of California. Initial plans to divert Trinity River water to the Sacramento River were included in the California State Water Plan in the 1930s, but later dropped. Proposals were reinstituted in the late 1940s, and the Department provided to Congress reports and findings on a proposed plan of development in the early 1950s. These reports indicated that more than 1.1 million acre-feet of inflow occurred on average from the upper Trinity River Basin above Lewiston. Based on these reports, Congress concluded that water “surplus” to the present and future water needs of the Trinity and Klamath Basins — then estimated at approximately 700,000 acre-feet and considered “wasting to the Pacific Ocean” — could be diverted to the Central Valley “without detrimental effect to the fishery resources.” (H.R. Rep. No. 602, 84th Cong., 1st Sess. 4-5 (1955); S. Rep. No. 1154, 84 Cong., 1st Sess. 5 (1955)). In fact, the underlying reports suggested that development of the TRD, and the resulting diversions, would not only maintain but also improve fishery conditions in the Trinity River, with as little as 120,500 acre-feet of water per year from above Lewiston dedicated to the fishery. Based on these understandings, Congress passed legislation authorizing the TRD on August 12, 1955 (PL 84-386) (1955 Act). Although Congress authorized the TRD as an integrated component of the Central Valley Project (CVP), section 2 of the 1955 Act specifically directed the Secretary of the

Interior to ensure the preservation and propagation of fish and wildlife in the Trinity Basin through the adoption of appropriate measures.

The Trinity River Basin Fish and Wildlife Task Force was initiated in 1984 under PL 98-541 to restore and maintain the fish and wildlife stocks of the Trinity River Basin to levels that existed just prior to construction of the CVP - TRD. The Central Valley Project Improvement Act of 1992 (PL 102-575) further supported restoration objectives and established completion dates for the program documents.

Key Milestones

1955: Congress authorized Trinity River Division of the CVP

1960: Trinity Dam begins managing flow

1963: Trinity/Lewiston Dams fully completed

1981: Interior Secretary increased flows and initiated Trinity River Flow Study

1984: Congress enacted Trinity River Basin Fish and Wildlife Management Act – to implement salmon restoration

1992: Congress enacted Central Valley Project Improvement Act, making 340,000 acre-feet available to the Trinity River

1999: Trinity River Flow Evaluation Study completed, used as Preferred Alternative in EIS/EIR

2000: Record of Decision signed by the Secretary of the Interior and the Hoopa Valley Tribal Council Sector Chairman

The Trinity EIS/EIR was completed and the ROD signed on December 19, 2000, establishing the current TRRP. The EIS calls for physical/mechanical restoration actions in the basin, as well as an increase from approximately 25 to 48 percent of the average annual inflow to Trinity Lake to be released to the river. CVP water and power users filed suit to prevent implementation of

the ROD. On March 19, 2001, the Eastern District Court of California enjoined that part of the decision that provided increased flows for the Trinity River required preparation of a Supplemental EIS/EIR (SEIS), but allowed other aspects of the program to proceed. A contract for developing the SEIS was awarded in December 2001, to include additional analysis of impacts to power production and those resulting from implementation of the associated Biological Opinion.

On April 19, 2002, U.S. District Court Judge Wanger modified the injunction to release more water in 2002, and proceeded to decide the merits of the case. On December 9, 2002, Judge Wanger granted the plaintiffs' motion for summary judgment on the issue of the Federal defendant's (Department of

the Interior) failure to comply with the National Environmental Policy Act. The Court entered final judgment on April 7, 2003, and granted defendants increased river flows from 340,000 acre-feet to 452,600 acre-feet in dry or wetter years. The U.S., Hoopa Valley and Yurok tribes, and Central Valley irrigators (Westlands, San Luis, and Delta-Mendota Water Authority) appealed the Court's April 2003 judgment.

Appeals were heard by the Ninth Circuit Court, and a final ruling was issued on November 5, 2004, in favor of the defendants that directs all aspects of the program to proceed and overturns the lower court's requirement to complete the SEIS. Plaintiffs indicated they will not appeal to the Supreme Court.

Below: Geographic overview of the Trinity River (approximately 40 river miles) between Lewiston Dam and the North Fork, showing constructed (28) and future (19) Trinity River channel rehabilitation projects (as of 2013), located within the Klamath watershed in northern California.

