

# RECLAMATION

*Managing Water in the West*

## **Finding of No Significant Impact, 2012 Lower Klamath River Late Summer Flow Augmentation**

**FONSI-NC-12-05**



Recommended By:



Date: 8/10/12

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# Introduction

The Bureau of Reclamation prepared a final Environmental Assessment (EA) to evaluate the effects of using up to 48 thousand acre feet (TAF) of water from Trinity Reservoir to provide preventative flow augmentation in the lower Klamath River in late summer 2012 to reduce the likelihood of a disease outbreak among returning adult fall-run Chinook salmon that could result in a large scale fish die-off. In the unlikely event that signs of an imminent disease outbreak are observed, Reclamation would use up to an additional 44 TAF from Trinity Reservoir to further supplement flows in the lower Klamath River as an emergency action.

# Background

In September, 2002, a substantial portion of the returning adult fall-run Chinook salmon died during a large scale die-off in the Lower Klamath River. Disease was the primary cause of death to fish, and warm water temperatures, low water velocities and volumes, high fish density, and long fish residence times were likely to have contributed to the outbreak of the epidemic.

The estimated 2012 ocean abundance (preharvest) of Klamath Basin fall-run Chinook salmon is 1.6 million adults. The estimated in-river run of adult fall-run Chinook salmon is 381,000. This run size would be the largest occurring since records have been kept since 1978 and more than three times the 1978-2011 average of just over 100,000. Because of the expected extremely large run size, and the relatively dry conditions in the upper Klamath Basin and associated flows in the Klamath River during the late summer, recommendations were developed to monitor the in-river Chinook salmon run, establish thresholds for actions aimed at preventing or minimizing any potential fish die-off, and for providing preventative and emergency flow augmentation in the lower Klamath River in 2012.

# Findings

In accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the Northern California Area Office of the Bureau of Reclamation, has determined that providing supplemental flows to the lower Klamath River in 2012 is not a major Federal action that would significantly affect the quality of the human environment and an Environmental Impact

Statement is not required. This Finding of No Significant Impact is supported by Reclamation's final EA, which is hereby incorporated in its entirety by reference.

This EA complies with the Council on Environmental Quality's Regulations (40 CFR 1500-1508), Department of the Interior Regulations (43 CFR Part 46) and other requirements such as the Endangered Species Act (ESA), and state requirements.

## **Water Resources**

The preventative supplemental flow releases will consist of up to 48 TAF of water from Trinity Reservoir in 2012. In the unlikely event of an imminent disease outbreak, an additional volume of up to 44 TAF would be provided. This action would not affect available water resources in 2012 as water allocations have already been determined. Additionally, base flows in the Trinity River will not be affected in the immediate year or subsequent years.

Releasing between 48 and 92 TAF of water to supplement flows in the Lower Klamath River could, under certain circumstances, result in some portion of this water volume being unavailable for other purposes in future years. However, the amount of water needed for the preventative flows and unlikely emergency flows is less than 4 percent of the total water service contract volume, and less than 1 percent of the total Central Valley Project contracted water volume.

Reclamation intends to submit a Temporary Urgency Change Petition pursuant to Water Code § 1435 to add the lower Trinity and Klamath Rivers to the place of use associated with the Trinity River Division water rights permits.

## **Biological Resources**

A variety of fish, wildlife, and plant species occur within the riparian corridor and in the Trinity River below Lewiston Dam and the in Lower Klamath River. The preventative flow magnitude and timing for the lower Klamath River are within the range of what have occurred historically. Additionally, flows that will occur in the Lower Klamath River due to increased releases from Lewiston Reservoir will be lower than what has been observed in contemporary years with the addition of supplemental flows from either Iron Gate Dam on the Klamath River or Lewiston Dam. Monitoring activities by state, federal, and tribal staff have not shown there to be negative influences of these flows.

Under the flow augmentation action, the susceptibility of returning adult fall-run Chinook salmon to the disease outbreak similar to that leading to the 2002 fish die-off will be decreased in the Lower Klamath River during the late summer in 2012. A similar flow augmentation action was implemented in 2003 and 2004, and NOAA's National Marine Fisheries Service (NMFS) concurred that the

action was not likely to adversely affect threatened Southern Oregon/Northern California Coast coho salmon. The NMFS was also involved with developing the 2012 flow augmentation action. The 2012 flow augmentation will not affect listed fish species in the Sacramento River Basin, although depending on water supply conditions associated with Trinity and Shasta Reservoirs in 2013, cold water resources used for temperature management may be affected to a small degree. It is not currently possible to meaningfully estimate this potential, but Reclamation will consult as appropriate with NMFS as more information becomes available.

## **Indian Trust Assets**

Indian trust assets are legal interests in assets that are held in trust by the United States Government for federally recognized Indian tribes or individuals. Specifically relevant to the flow augmentation action considered in the EA are the tribal trust fisheries in the Klamath and Trinity Rivers. Under the flow augmentation action, the risk of disease vulnerability to the large run of fall-Chinook salmon returning to the Lower Klamath River in the late summer 2012 would be decreased. In turn, the risk to the tribal trust fishery would decrease.

## **Environmental Justice**

Executive Order 12898 (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and lower-income populations. The Trinity and Klamath Rivers flow through rural areas and through the Hoopa Valley Tribe and Yurok Tribe Reservations. Generally speaking, the Reservations' populations are lower-income and traditionally rely on salmon and steelhead as an important part of their subsistence. Under the proposed action, the large run of fall Chinook salmon returning to the Lower Klamath River in the late summer would be less susceptible to a disease outbreak similar to that which ultimately caused the 2002 fish die-off. In turn, the risk to the fisheries and the associated environmental justice would be reduced.

## **Socioeconomic Resources**

The socioeconomic resources that may be affected by the Proposed Action are the commercial, recreational, and tribal salmon and steelhead fisheries on Klamath Basin stocks and the associated economic activities. Also, water from Trinity Reservoir is exported to the Central Valley for consumptive use, and hydroelectric power is generated.

Implementation of the flow augmentation action will reduce the risk of disease susceptibility to the large run of fall Chinook salmon returning to the Klamath

River in late summer 2012. In turn, there will be less potential for adverse affects to fisheries-related socioeconomic resources.

Depending in part on whether Trinity Reservoir completely fills in water year 2013 after the flow augmentation is implemented in 2012, there is a possibility that some of the water volume from Trinity Reservoir used to implement the Proposed Action may not be available for other uses in the future. However, the entire Central Valley Project is operated in a coordinated fashion with regard to operations, water supply forecasting, and water allocations for contractors. It is unlikely that the amount of water that may not be available in future years due to the 2012 flow augmentation would affect future water allocations for individual contractors.

Implementation of the Proposed Action will not adversely affect power generation in 2012. The expected schedule for water delivery to the Clear Creek tunnel has already been developed, and the Proposed Action would not affect these exports. If Trinity Reservoir does not fill in water year 2013, some portion of the water that is released through Lewiston Dam to implement the 2012 flow augmentation action may not be available for later release through Trinity River Division power plants. This may result in a relatively small decrease in power generation relative to the Trinity River Division's nominal production, although power generation opportunities are also subject to many restrictions and uncertainties unrelated to the flow augmentation action.

Reclamation intends to assess any effects of the Proposed Action in future years in terms of water supply and power generation, and seek to identify and implement mitigation opportunities, as appropriate consistent with Reclamation authorities and available resources.