



Trinity River Restoration Program

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NC-150

MEMORANDUM

TO: TRINITY MANAGEMENT COUNCIL
FROM: DOUG SCHLEUSNER, EXECUTIVE DIRECTOR
TRINITY RIVER RESTORATION PROGRAM
SUBJECT: DRAFT ACTION PLAN; 2003 FALL FLOW RELEASES
CC: TRINITY ADAPTIVE MANAGEMENT WORKING GROUP
DATE: 7/28/03

Background

The implementation strategy proposed in "Recommendations for Averting Another Adult Salmonid Die-off", a proposal submitted by the Department of the Interior (DOI) to Judge Oliver Wanger on March 18, 2003 (March 18th Plan), included a provision for a Technical Group formed of biologists representing the U.S. Fish and Wildlife Service, Bureau of Reclamation, Trinity Restoration Program Office, NOAA Fisheries, the Yurok and Hoopa Valley Tribes, and California Department of Fish and Game to meet in late July 2003 to assess the impending risk of the immigrating salmonid population to a fish die-off. The technical group would consider the three triggering criteria that could implement the proposed action, evaluate the daily release schedule and develop a monitoring plan.

Growing interest for improved stakeholder input and concerns regarding the original proposed action and the trigger thresholds suggested that updating the March 18th plan would be beneficial. On June 26, 2003 the Trinity Management Council endorsed a DOI supported approach to updating the original implementation strategy that included improved stakeholder input and the development of a final Action Plan (June 26th Memo). The schedule outlined in the memo outlined a process with five steps including: 1) opportunity for Trinity Adaptive Management Working Group (TAMWG) to provide input directly to the technical group prior to developing the action plan, 2) convening a group of technical staff from the agencies and tribal governments represented on the TMC to draft the action plan, 3) the opportunity for the TAMWG to provide input on the draft action plan directly to the TMC, 4) the TMC will approve and forward a draft Action Plan to DOI for consideration and 5) Reclamation and the Fish & Wildlife Service will finalize and implement the Action Plan.

Written comments were received from three organizations represented on the TAMWG and one sub-committee of the TAMWG prior to the technical group meetings. On July 23rd and 24th Trinity River Restoration Program (TRRP) and TMC technical staff met to assess the risk to this year's fall run based on the triggers in the March

18th plan and begin preparation of the draft action plan. The action plan includes final decision criteria to initiate action, an updated daily flow schedule and a monitoring/evaluation plan.

Action Items

The draft Action Plan based upon the technical group and stakeholder input is enclosed for your review and will be the focus of our conference call on July 30. The draft includes an update to the March 18th triggers, the preferred flow schedule and includes an additional emergency response component based on real-time monitoring of the incidence of ICH infection in fall run chinook salmon populations in the lower Klamath River. A conference call has been scheduled for Wednesday, July 30th from 11:30 to 1:00 pm.

The technical group was able to agree on most aspects of the plan. However, the team was unable to achieve consensus regarding the Evaluation of Final Triggers and Implementation of the Proposed Action section of the Action Plan.

The TRRP staff recommends an approach focused on maximizing the success of the 2003 Trinity River fall run chinook (Alternative 1). Alternative 1 provides conditions known to provide adequate migration conditions for adult chinook salmon. Staff believe that it is necessary to avoid another die-off for two main reasons: 1) Substantial die-offs in consecutive years will further destabilize the fall run population. Maximizing the 1999 brood year's success will help stabilize the population structure for the Trinity River fall run chinook salmon. Getting back to where we are today would likely take decades and 2) maximizing the success of the 1999 brood year is critical to protect the current genetic diversity in this population.

However, technical staff recognize a valid alternative that considers potential impacts to fish of the Klamath River mainstem (Alternative 2). Alternative 2 was developed to be considerate of issues regarding the potential impacts of the increased Trinity River flows on Klamath mainstem returning adults. There is concern that adequate migration conditions below Weitchpec may encourage Klamath River fish migration past the Trinity River confluence up to areas where conditions may degrade.

Two alternatives were developed and are included below for your consideration and recommendation:

Alternative 1: Final decision criteria for environmental triggers

The triggers proposed in the March 18th plan have been evaluated by the technical group and the following two updates were determined to be necessary and appropriate:

- 1) Water temperature was determined to be an inappropriate trigger.

The optimal water temperature conditions for Ich pathogen replication range from 17 to 22 degrees Celsius (Scott Foot, USFWS, personal communication 7/23/03). It is unlikely that any management action taken this fall could drop the water temperature below the optimal range for Ich. Additionally, temperature induced migration inhibition interacts complexly with fish health and passage conditions making it an insensitive trigger.

- 2) Both run size and river flow criteria should be used to initiate action.

The proposed river flow and run-size thresholds were determined to appropriate for implementing an action in 2003. These triggers represent a conservative approach based on conditions known to provide adequate conditions for salmon migration through the lower Klamath River. Based on data from 2001, the lower known adequate flows for large run sizes is 2,600 cfs (2001 data). The conservative approach is desirable in 2003 because a margin of safety is desirable to prevent a major die-off in two consecutive years.

Under Alternative 1, both the run size and river flow triggers have been met and the proactive action will be implemented as described.

Alternative 2: Final decision criteria for environmental triggers

Releases from Iron Gate Dam were determined to be a more appropriate trigger to initiate the proactive action than the triggers contained in the March 18th Plan. A Proactive Release would be initiated only if releases for Iron Gate are below 979 cfs in August and 1,168 cfs in September, as currently scheduled under the Klamath Project 2003 Operations Plan (dated 4/10/2003).

Planned releases from Iron Gate should maintain flows close to the Hardy Phase II flows for 'recommended' and 'unimpaired' flows at both the 80% to 90% exceedence levels for the lower Klamath River in August and September shown in Table 1.

Table 1 – Hardy Phase 2

% exceedence	KR Monthly Q rec's TR to estuary (cfs)		KR Simulated unimpaired flows TR to estuary (cfs)	
	August	September	August	September
50%	3,021	2,824	3,627	3,349
80%	2,407	2,310	2,612	2,648
90%	2,363	2,065	2,334	2,265

The current release schedule for Iron Gate Dam is also close to the Biological Opinion for Klamath River coho recommended Iron Gate flows of 1,000 cfs for any water year type to prevent jeopardizing the threatened population of coho and provide critical habitat for migrating chinook salmon.

Under Alternative 2, the trigger for a Proactive Release has not yet been met. The proactive action would only be initiated if the water year type for the Klamath River are downgraded from the current "below average" conditions. TRRP staff will maintain contact with Klamath Operations to monitor the trigger.