



Pacific Fishery Management Council

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Dan Wolford, Chairman | Donald O. McIsaac, Executive Director

April 24, 2013

Ms. Sally Jewell
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

RE: Action Requested to Prevent Klamath River Fish Kill

Dear Secretary Jewell:

The Pacific Fishery Management Council (Pacific Council) would like to thank all those in the Department of the Interior (DOI) involved in the water management decision-making designed to protect against a fish kill in the Klamath River during the record high run of fall Chinook salmon that returned in 2012. We view the 2012 experience to be a very successful example of proactive conservation, and are asking that similar protection occur for another exceptionally large return of salmon this fall.

In 2012, the Pacific Council forecasted a new record high return of fall Chinook to the Klamath and Trinity Rivers; the actual return was the largest adult natural spawning escapement in the Klamath River Basin (122,000) since comprehensive records were initiated in 1978, along with record tribal and non-tribal in-river fishery catches. Excellent cooperation of Federal and state water managers provided enhanced river flows that enabled this record salmon run to successfully return to its spawning areas in the Klamath and Trinity rivers. The lack of any observed fish kill in spite of very low fall season flow conditions demonstrated the value and importance of real-time flow management for the Klamath River fall Chinook resource. We hope that similar cooperation in 2013 will again allow a large salmon run to spawn successfully.

This year, the Pacific Council is concerned that projected low flows in the Klamath River will substantially affect salmon essential fish habitat (EFH) and could create conditions leading to a fish kill in the Klamath River during the fall Chinook migration in 2013, such as occurred in 2002.

The purpose of this letter is to recommend, as we did last year, that the Bureau of Reclamation (BOR) proactively take action to minimize the potential for another fish kill by augmenting flow releases to alleviate stressful conditions for the 2013 fall Chinook run as these fish migrate through the Lower Klamath River. In particular, we recommend that BOR reserve an adequate

block of water for real-time flow management during the fall season to ameliorate expected low flow conditions in the Lower Klamath River, if needed, as was done successfully in 2012.

As you know, the Pacific Council is one of eight Regional Fishery Management Councils established by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976, and recommends management actions for Federal fisheries off Washington, Oregon, and California. The MSA includes provisions to identify, conserve, and enhance EFH for species regulated under a Pacific Council fisheries management plan. Each Council is authorized under MSA to comment on any Federal or state activity that may affect the habitat, including EFH, of a fishery resource under its authority. Furthermore, for activities that the Pacific Council believes are likely to substantially affect the habitat of an anadromous fishery resource under its authority, the Pacific Council is obligated to provide comments and recommendations (MSA §305(b)(3)).

Forecasted Flows

Available data indicate that the 2013 water supply in the Klamath Basin will be below normal.¹ Precipitation has been substantially lower than average since January of this year. Air temperatures throughout the Basin have been above normal. Late winter or early spring precipitation events are not expected to change water supply conditions overall.

Forecasted Run Size

At the same time, the 2013 fall Chinook escapement is projected to be the second largest return on record. Alternatives for marine fisheries and river return in 2013 have been modeled by the Pacific Council's Salmon Technical Team. Ocean fishery modeling, including projections of the number of fish returning to the Klamath Basin, currently forecast a return of over 271,000 adult fall Chinook to the Klamath River mouth, second only in magnitude to the in-river population of 2012 (see figure below). This is nearly 1.7 times the 2002 adult run size associated with the 2002 fish kill and only 10 percent less than the observed record run of 302,100 adult fish in 2012. The positive performance of the 2009 brood year, as evidenced by the age-three returns last year, speaks to a high abundance of large, age-four Chinook contributing to the 2013 run. Hence, with respect to biomass, the 2013 river run may be comparable to that seen in 2012.

Analysis

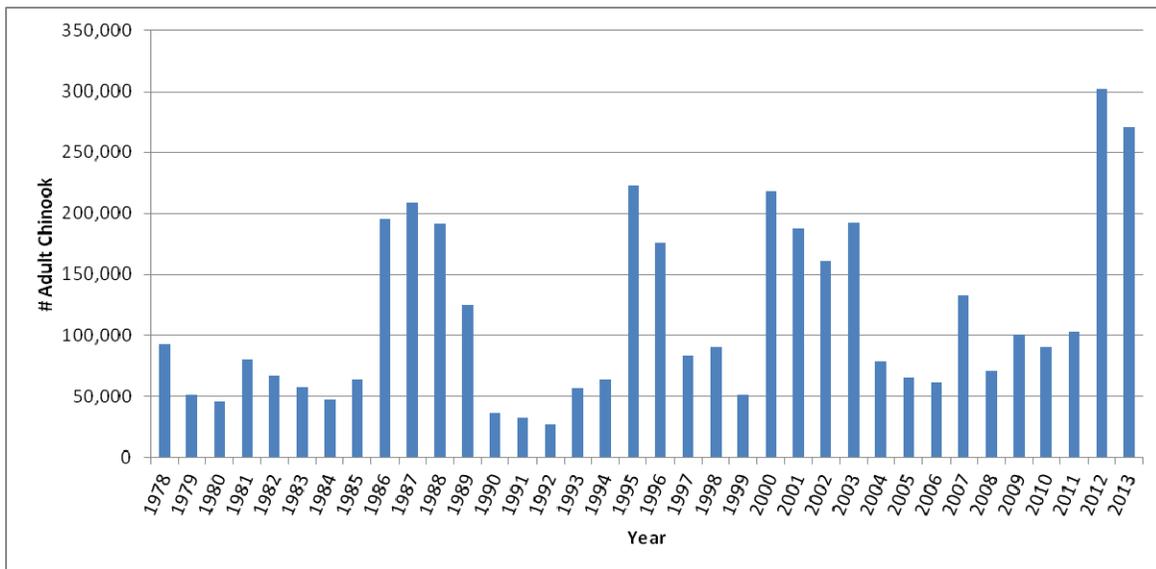
The low flows, combined with such a large run, could result in conditions similar to those that led to the September 2002 fish kill, when more than 33,000 adult salmon died in the Lower Klamath River. Several analyses, including one produced by the USFWS,² concluded that low river flow and high densities of fish contributed to the outbreak of two diseases (*Ich* and *columnaris*) that caused the 2002 fish kill. The evidence is compelling that lower-than-average hydrology and greater-than-average fish densities may once again compromise the safe passage of adult fall Chinook in Klamath River in 2013.

¹ Natural Resources Conservation Service, http://www.wcc.nrcs.usda.gov/wsf/west_fcst.html

² Guillen, G. 2003. Klamath River Fish Die-Off, 2002, Causative Factors of Mortality. http://www.krisweb.com/biblio/klamath_usfws_guillen_2003_killcause.pdf

Therefore, we recommend you pursue measures to provide additional flow during the fall Chinook migration period, if necessary, to maintain the quality of EFH for salmon and to minimize the likelihood of another fish kill. We recommend that the BOR work with the Klamath Basin’s biologists and scientists, such as the Trinity River Restoration Program’s Flow Group, to determine the best manner for using this water to minimize the potential for another fish kill. This was successfully done in the fall of 2012 when 39,000 acre feet of supplemental flows were provided specifically to improve upstream migration conditions and reduce the fish health risk for the record fall Chinook return; and no fish kill, in fact, was observed. The Klamath Basin technical team infrastructure to monitor river flows, water temperatures, and the progression of the fall season returns remains in place, and is the appropriate technical forum to help guide BOR’s real-time flow management actions to protect these fish.

The figure below contains the post-season estimated Klamath River adult fall Chinook estimated run sizes for 1978 – 2012 and the projected abundance for 2013.



Recommendation

As noted above, anticipated water supply and fish abundance for 2013 suggests a need to provide supplemental flow releases comparable to the safe thresholds identified in BOR’s Environmental Assessment for late-summer flow augmentation in 2012³. This conclusion is additionally informed by the interagency federal trust responsibility for the tribal fishery in the Klamath and Trinity Rivers and prudent management considerations.

Accordingly, the Pacific Council recommends that the Department of the Interior initiate planning now and take all necessary steps in the coming months to ensure sufficient water is

³ Online at http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=10731

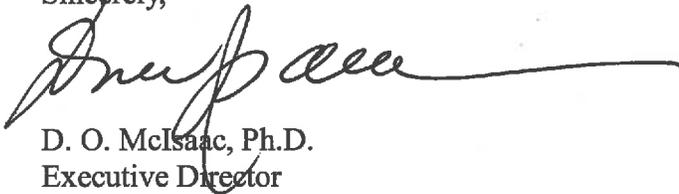
available to minimize the potential for another fish kill if conditions in the Klamath River prove to be dangerous to migrating Chinook salmon in the late summer and fall of 2013.

We recommend that you do what is necessary to ensure an adequate amount of supplemental water for release from the Trinity and/or Upper Klamath basins during the peak migration and holding timeframe for the fall Chinook return. Such flow augmentation should be designed to maintain the quality of salmon EFH and minimize the likelihood of another fish kill, taking into consideration the river flow patterns and salmon abundance that resulted in the 2002 fish kill. To that end, we recommend that the Department of Interior work with the Klamath Basin's tribal, state, and non-DOI Federal biologists and scientists to determine the best manner for using this water to minimize the potential for another fish kill.

In closing, it may be that this 2012-2013 situation reoccurs more frequently in the future than in the past few decades. Towards that possibility we recommend that the Department consider developing a permanent and comprehensive plan to address the needs of lower Klamath fish passage. The Pacific Council is prepared to assist with this effort in any way possible.

Thank you for your attention to this important matter.

Sincerely,

A handwritten signature in black ink, appearing to read "D. O. McIsaac", with a long horizontal flourish extending to the right.

D. O. McIsaac, Ph.D.
Executive Director

JDG:rdd

C: Pacific Council Members
Habitat Committee
Mr. Ken Salazar, Former Secretary of Interior
Humboldt County Board of Supervisors