## SACRAMENTO RIVER WINTER CHINOOK CONTROL RULE, PRELIMINARY RECOMMENDATIONS

The Pacific Fishery Management Council (Council) is concerned with the current status of Sacramento River winter Chinook (SRWC) and committed to protecting this resource. Since 2015, the Council has applied considerable restrictions and precautionary measures to salmon ocean fisheries beyond what is called for in the current SRWC harvest policy due to extended drought conditions and evidence of poor juvenile recruitment. The National Marine Fisheries Service (NMFS) has identified SRWC as one of eight "Species in the Spotlight," which are among the most at risk of extinction in the near future.

SRWC are listed as endangered under the Endangered Species Act (ESA) and have been harvested incidentally in ocean fisheries, primarily off the central California coast. A two-part consultation standard for endangered SRWC was implemented in 2012. The first component of the consultation standard is the season and size limit provisions for central California salmon fisheries. The second component of the consultation standard is specified by a control rule that limits the maximum age-3 impact rate for the area south of Point Arena, California based on the geometric mean of the most recent three years of spawner escapement.

The current control rule is abundance-based with allowable (age-3) impacts ranging from zero to twenty percent. When abundance is less than 500 fish, allowable impacts are zero. This results in a complete salmon fishery closure south of Point Arena. The Council has expressed concern that the control rule is unnecessarily restrictive and could allow for *de minimis* levels of fishing without significantly increasing the risk of extinction. This approach is currently used for several stocks of salmon, including Sacramento River Fall Chinook. There are also concerns that the control rule's reliance on spawner escapement to determine allowable impacts is not adequately reactive to rapid changes in abundance, since the estimated spawner abundance for the upcoming year is determined by using the geometric mean from the prior three years of escapement. Incorporating more forward-looking indicators in the current year forecast would seem beneficial.

To address the Council's interest in investigating an alternative harvest policy for SRWC, the Ad Hoc Sacramento River Winter Chinook Workgroup (SRWCW, Workgroup) was formed in November 2015 by the Council. The Workgroup was tasked with exploring and evaluating alternative fishery management frameworks for Sacramento River Winter Chinook. The Workgroup focused on three major areas; 1) develop methods for forecasting abundance, 2) develop a suite of potential control rules for the Council's consideration, and 3) evaluate the performance of these control rules with regard to conservation benefits and fishery costs using a Management Strategy Evaluation (MSE) approach. At the September 2016 Council meeting, the Council reviewed the proposed forecasting methodology, and approved a draft range of nine alternative control rules for analysis. At the April 2017 Council meeting, the Workgroup provided a summary of the preliminary results of a Management Strategy Evaluation (MSE) of the alternative control rules (Agenda Item E.1.a, Supplemental SRWCW PPT, April 2017). The Council provided feedback on the initial analysis, and also provided guidance for future analysis.

The Workgroup worked over the summer to review and respond to the Council guidance from April and to address input received from the Council, Scientific and Statistical Committee, and workgroup members.

The Workgroup held a joint webinar with the Salmon Advisory Subpanel (SAS) on August 3, 2017. The Workgroup provided a summary of the initial results of the MSE work performed since April and discussed the various scenarios analyzed.

It is anticipated that the Council will be making a policy recommendation for an alternative control rule based on these current set of refined analyses. The Council is tentatively scheduled to provide a preliminary recommendation here at its September 2017 meeting in Boise, Idaho and a final Council recommendation at its November meeting in Costa Mesa, California. Following the November Council meeting, it is anticipated that NMFS will consider the Council's recommendation in its review of the consultation standards under the ESA for potential implementation for 2018 ocean salmon fisheries.

## **Council Action:**

- 1. Review progress and consider the report of the SRWCW.
- 2. Provide a preliminary recommendation for an alternative control rule, describe any future analyses needed, and the proposed schedule including possible inclusion of items for the 2018 Salmon Methodology Review.

## Reference Materials:

1. Agenda Item F.2.a, SRWCW Report 1: Evaluation of Alternative Sacramento River Winter Chinook Salmon Control Rules: Updated Management Strategy Evaluation Analysis.

## Agenda Order:

F.2 Sacramento River Winter Chinook Control Rule, Preliminary Recommendations

Robin Ehlke

- a. Reports and Comments of Advisory Bodies and Management Entities
- b. Public Comment
- c. **Council Action:** Preliminary Recommendations on Control Rule Alternatives and Future Analysis

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