

## SALMON METHODOLOGY REVIEW—FINAL TOPIC SELECTION AND UPDATE ON MODEL IMPROVEMENTS

Each year, the Scientific and Statistical Committee (SSC) and Salmon Technical Team (STT) complete a methodology review to help assure new or significantly modified methodologies employed to estimate impacts of the Pacific Fishery Management Council's (Council's) salmon management use the best available science. This review is preparatory to the Council's adoption at the November meeting of all proposed changes to be implemented in the coming season, or, in certain limited cases, providing directions for handling any unresolved methodology problems prior to the formulation of salmon management alternatives the following March. Because there is insufficient time to review new or modified methods at the March meeting, the Council may reject their use if they have not been approved the preceding November.

The Methodology Review is also used as a forum to review updated stock conservation objective proposals, which allows the Council to approve updates at the November meeting and allows adequate time for planning fisheries in the subsequent year. The Salmon Fishery Management Plan (FMP) allows conservation objectives to be updated without a formal FMP amendment, provided a comprehensive technical review of the best scientific information available provides conclusive evidence that, in the view of the STT, SSC, and the Council, justifies a modification.

At its April 2022 meeting, the Council adopted the following priority candidate items for the 2022 Salmon Methodology Review.

1. Technical review of the updates associated with 'Round 7.1.1' of the Fishery Regulation Assessment Model (FRAM) base period as they relate to modeled abundances of Chinook salmon stocks used in determining the southern resident killer whale (SRKW) Chinook salmon abundance threshold (assigned to Model Evaluation Workgroup [MEW] and STT, with support from Washington Department of Fish and Wildlife, Northwest Indian Fish Commission and National Marine Fisheries Service [NMFS]).
2. Technical review of the updates to Chinook salmon ocean distribution models that derive from two publications (Shelton et al. 2019, 2021) and are used to apportion the modeled abundance of Chinook salmon stocks among ocean regions (assigned to the SSC with support from Northwest Fishery Science Center and Southwest Fishery Science Center).
3. Discussion of whether the Sacramento Index forecast should be expressed as a mean or median (assigned to STT and SSC).
4. Review of the basis behind the Sacramento River Fall Chinook conservation objective (assigned to SSC, with support from California Department of Fish and Wildlife and NMFS).
5. Fisheries Regulation Assessment Model (FRAM) technical detail documentation (assigned to MEW).

All materials for review are to be received at the Council office at least two weeks prior to the review meeting of the SSC Salmon Subcommittee and STT. Specific dates for the 2022 salmon

methodology review have not been identified at this time, but it is anticipated that the meeting will held via webinar in October.

Also under this agenda item, the STT will provide their second report on refining the accuracy of effort forecasts produced by the Klamath Ocean Harvest Model. This topic was first discussed in April 2022, and in June 2022 the STT provided a [report](#) describing potential adjustments that may help improve the effort forecast performance.

**Council Action:**

- 1. Determine if topics identified for review will be ready for the October Salmon Methodology Review meeting.**
- 2. Set priorities for review of methodologies and/or conservation objective update proposals as needed.**
- 3. Discuss model improvements for the Klamath Ocean Harvest Model.**

**Reference Materials:**

1. If received, Public Comments are electronic only (see [e-portal](#)).

**Agenda Order:**

- D.1 Salmon Methodology Review—Final Topic Selection and Update on Model Improvements Robin Ehlke
- a. Reports and Comments of Management Entities and Advisory Bodies
  - b. Public Comment
  - c. **Council Action:** Identify Priority Projects for Review in 2022 and Discuss Model Improvements

PFMC  
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