

SALMON TECHNICAL TEAM REPORT ON SALMON METHODOLOGY REVIEW –
FINAL TOPIC SELECTION AND UPDATE ON MODEL IMPROVEMENTS

At the April 2022 Pacific Fishery Management Council (Council) meeting, five topics were selected as candidates for review at the October 2022 Methodology Review meeting:

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 the Model Evaluation Workgroup [MEW] and Salmon Technical Team [STT], with support from Washington Department of Fish and Wildlife, Northwest Indian Fisheries Commission and National Marine Fisheries Service [NMFS]).
2. Technical review of the updates to Chinook salmon ocean distribution models that derive from two peer-reviewed publications (Shelton et al. 2019, 2021) and are used to apportion the modeled abundance of Chinook salmon stocks among ocean regions (assigned to the Scientific and Statistical Committee [SSC] with support from the Northwest Fishery Science Center [NWFSC] and Southwest Fishery Science Center [SWFSC]).
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. FRAM technical detail documentation (assigned to the MEW).

The STT discussed each of these potential topics with the SSC on Wednesday, September 7.

Topics 1 and 2 represent a joint STT/SSC technical review of components of the SRKW Chinook salmon abundance threshold. The technical review would be focused on summarizing changes in the FRAM base period and stock distribution estimates, as outlined in the salmon Fishery Management Plan. The STT anticipates that summaries describing changes to the FRAM base period (MEW) and Chinook salmon distribution parameters (NWFSC) will be available prior to the October Methodology Review meeting. While not necessarily part of the annual Methodology Review, the STT will be prepared to participate in a technical review of these topics with the SSC Salmon Subcommittee at the October meeting.

For item 3, technical work related to expressing the Sacramento Index as a median or a mean has been developed by the SWFSC. It is anticipated that documentation will be completed in time for discussion at the Methodology Review meeting.

For item 4, a review of the literature underpinning the Sacramento River Fall Chinook conservation objective has been in development by a representative of the SWFSC, and it is anticipated that this will be ready for discussion at the Methodology Review meeting.

For item 5, the STT understands that additional FRAM technical detail documentation is under development and will be ready in time for an update at the Methodology Review meeting.

PFMC
09/08/22