

MODEL EVALUATION WORKGROUP REPORT ON THE 2022 FINAL METHODOLOGY REVIEW

The Model Evaluation Workgroup (MEW) offers comments on Fisheries Regulation and Assessment Model (FRAM) related topics as contained in the materials provided for the 2022 October Methodology Review Meeting.

The MEW was assigned to the following two topics that were presented at the 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
- (2) Fisheries Regulation Assessment Model (FRAM) technical detail documentation

Technical review of the updates associated with ‘Round 7.1.1’ of the FRAM base period

Jon Carey (National Marine Fisheries Service, Salmon Technical Team, MEW) presented a summary of the four major changes in base period Round 7.1.1 that affected model-derived estimates of Chinook salmon ocean cohort sizes. These model outputs are used to estimate regional Chinook abundances using methods derived by the Ad-Hoc SRKW Workgroup, from which the abundance threshold for the North of Falcon area was derived. Three of the changes were simply data updates or corrections to coded-wire tag (CWT) recovery information, stock-specific terminal run size estimates, and fishery catch estimates; the fourth was an expansion to CWT escapement recoveries to account for inter-dam loss to Upper Columbia River stocks.

FRAM technical detail documentation

Angelika Hagen-Breaux (Washington Department of Fish and Wildlife, MEW) gave a presentation of the FRAM documentation website and the newly added technical content. The documentation is an online “living” [repository](#). It hosts the previously presented “User Manual” and “FRAM Overview”. The newly added content focused on expanded equations to compute non-landed mortalities, evaluate sizes-limit changes, and describe mark-selective fishing equations. Additionally, all equations were formatted to denote the origin of terms. Future documentation will likely focus on providing additional detail on FRAM procedures as well as adding a significant amount of content to the documentation of the current Chinook base period. This project was a collaborative effort between the Salmon Model Analytical Workgroup and MEW members.