

SALMON TECHNICAL TEAM REPORT ON EXECUTIVE ORDER 13921:
PROMOTING AMERICAN SEAFOOD COMPETITIVENESS AND ECONOMIC GROWTH
– FINAL RECOMMENDATIONS

Representatives from the Salmon Technical Team (STT) attended a June 30, 2020 briefing on Executive Order 13291: Promoting American Seafood Competitiveness and Economic Growth, led by Pacific Fishery Management Council (Council) Staff Officer, Dr. Jim Seger.

The STT discussed a prioritized list of recommended actions that are focused on increased production within sustainable fisheries. The STT has interpreted this to be inclusive of actions that promote sustainability for salmon stocks that make substantial contributions to fisheries. Given this interpretation, we reiterate the recommended actions previously described in the rebuilding plan for Sacramento River fall Chinook (SRFC) salmon. In priority order, these include:

Reconsider the current conservation objective for SRFC

Description of Recommended Action:

The action would include assembling data and performing analytical work to develop new management objectives. This work would also consider the potential for specifying the conservation objective in terms of natural origin spawners and sub-basin escapement goals.

Rationale:

The current conservation objective for SRFC has been in place since 1984, and it is likely that the productivity and capacity of this stock has changed since that time. A new management objective would enable in targeting escapement levels that result in maximum sustainable yield (MSY), informed by an analysis of contemporary data.

Develop an age-structured stock assessment for the SRFC stock using cohort reconstruction methods

Description of Recommended Action:

The action would include assembling data and constructing a cohort reconstruction model that would enable age-specific management of the SRFC stock. Tasks include data management and model development.

Rationale:

Age-structured cohort reconstruction models enable estimation of important vital rates, including age-specific maturation rates. Results derived from such models can be used in the estimation of stock productivity, informing age-specific fishery planning models, and enabling age-specific abundance forecasts.

Develop age-structured abundance forecasts

Description of Recommended Action:

The action would require performing analytical work to develop candidate age-structured abundance forecasting models and evaluate the forecast accuracy of these candidate models.

Rationale:

Age-structured abundance forecast models have the potential to be more accurate than composite age forecast models. Improved abundance forecast accuracy enables better management by more precisely structuring fisheries to achieve MSY levels of spawner escapement.

Develop an age-structured SRFC harvest model

Description of Recommended Action:

This action would include development and testing of a new age-structured harvest model for SRFC.

Rationale:

Harvest models are used to project exploitation rates, escapement, and other metrics based on the spatial and temporal structure of commercial and recreational fisheries. Age structured harvest models allow for more precise targeting of separate cohorts in fisheries, relative to harvest models that aggregate age structure.

Reconsideration of the current conservation objective for SRFC is of highest priority because the existing objective has been in place since 1984 and there is substantial contemporary information available. The following three recommended actions would need to take place in order, given that age-specific abundance forecasts and an age-structured harvest model require results from cohort reconstructions.

The STT received guidance that two lists should be constructed, one with Council/National Marine Fisheries Service (NMFS) authority and one with authority placed with other agencies. While each of the four recommendations above would likely include collaborations between NMFS and the California Department of Fish and Wildlife (CDFW), we suggest that NMFS have primary authority over recommendations 3 and 4 and CDFW have primary authority over recommendations 1 and 2.

PFMC

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