

2013 SALMON METHODOLOGY REVIEW

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 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 options 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 2013 meeting, the Council adopted the following priority candidate items that the SSC and STT may consider for the 2012 Salmon Methodology Review. Source entities to deliver detailed reports for SSC review are included in brackets with each candidate item.

The following were identified as priority items:

- Review performance of, and develop alternatives to, the Yaquina River marine survival rate index used in 2013 for the Oregon coastal natural (OCN) coho matrix control rule. [Oregon Department of Fish and Wildlife (ODFW)]
- Evaluate alternative forecast methodologies for the Sacramento fall Chinook index. [STT]
- Develop Conservation Objectives, Annual Catch Limits, and Status Determination Criteria for Willapa Bay coho. [Washington Department of Fish and Wildlife (WDFW), STT]
- Develop Lower Columbia natural (LCN) coho matrix control rules. [ODFW, WDFW]
- Develop Conservation Objectives for Southern Oregon coastal Chinook. [ODFW]

The Council recognized that it will be difficult for the Model Evaluation Workgroup (MEW) to complete all of the following tasks in time for the fall review process. The Council asked the MEW to focus their efforts on those items with the best chance of completion by the fall.

- Evaluate bias in coho mark rates in preseason forecasts and postseason estimates in mark-selective coho fisheries north of Cape Falcon. [MEW]
- Incorporate observed encounter rates of sub-legal Chinook into Fishery Regulation Assessment Model (FRAM) for fisheries outside of Puget Sound. [MEW]
- Review the user's manual for the Visual Studio version of FRAM. [MEW]

- Develop improved base period estimates of legal and sub-legal Chinook encounter rates by incorporating more recent information from coded-wire tag and genetic sampling into Chinook FRAM. [MEW]
- Explore incorporating the coho FRAM bias correction methods for mark-selective fisheries into Chinook FRAM. [MEW]

These subjects and the responsible agencies were identified in a reminder email dated June 12, 2013, which requested agencies prepare to speak to the status of the subjects in terms of completeness and priority (Agenda Item E.1.a, Attachment 1).

Other review topics or conservation objective updates may be considered for review at this meeting, provided responsible agencies or individuals are prepared to justify their inclusion. 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, which is scheduled for October 1-3, 2013 in Portland.

In addition to the methodology review topics listed above, the Council is also expected to receive reports from the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) regarding Sacramento River winter Chinook (SRWC).

In a letter dated August 12, 2013, Council Executive Director, Dr. Donald McIsaac, conveyed the Council's request for a presentation on the basis of the NMFS Biological Opinion jeopardy determination for ocean salmon fisheries, the subsequent management strategy evaluation, and the reasonable and prudent alternative selected by NMFS as part of the current consultation standard for SRWC (Agenda Item E.1.a, Attachment 2). Specifically, the Council requested a briefing on the control rule that limits the maximum age-3 impact rate for fisheries south of Point Arena, California, based on the most recent 3-year geometric mean spawner escapement, relative to its extinction risk in comparison to other alternatives examined in the management strategy evaluation. The Council is concerned that the existing control rule may be unnecessarily restrictive in years of low abundance, particularly in situations where mean escapement falls below a 500 fish threshold that results in zero rather than *de minimis* impacts. NMFS has submitted a white paper on the subject at the March 2012 Council meeting ([March 2012, Agenda Item G.4.c, Supplemental NMFS Report 2](#)) and is expected to report further on the matter in Boise.

The Council would like to have a discussion about alternative control rules that can provide incidental *de minimis* management flexibility, capable of preserving some level of opportunity for the harvest of healthy targeted stocks without significantly increasing the risk of extinction of SRWC. The Council could consider additional analyses or public notice for Council action at the November 2013 Council meeting in Costa Mesa, California, towards a potential Council decision to recommend NMFS consider changes in the management approach for the 2014 salmon preseason management cycle and fisheries.

Additionally, the Council will hear an update from CDFW on the status of this year's SRWC escapement, including an update on efforts to rescue SRWC spawners that had become stranded in Central Valley irrigation projects.

Council Action:

1. **Determine if topics identified for review will be ready for the joint SSC Salmon Subcommittee - STT meeting in October.**
2. **Set priorities for review of methodologies and/or conservation objective update proposals.**
3. **Provide guidance and recommendations on SRWC harvest control rule alternatives.**

Reference Materials:

1. Agenda Item E.1.a, Attachment 1: June 12, 2013 email to the agencies from Mike Burner regarding preliminary topic selection.
2. Agenda Item E.1.a, Attachment 2: August 1, 2013 letter from Dr. McIsaac to Mr. Will Stelle regarding SRWC.

Agenda Order:

- a. Agenda Item Overview Mike Burner
- b. Reports and Comments of Advisory Bodies and Management Entities
- c. Public Comment
- d. **Council Action:** Adopt Final Review Priorities and Consider Recommendations for Sacramento Winter Chinook Harvest Control Rules

PFMC
08/20/13