# SACRAMENTO RIVER FALL CHINOOK WORKGROUP REPORT ON SALMON METHODOLOGY REVIEW - FINAL TOPIC SELECTION

In April 2025, the Pacific Fishery Management Council (Council) added two topics recommended by the Sacramento River Fall Chinook Workgroup (SRWG) to the preliminary list of 2025 salmon methodology review topics: 1. Derivation of natural-area $S_{MSY}$ for Sacramento River fall Chinook and 2. Methods for deriving a total (natural areas plus hatchery) escapement objective based on consideration of natural production and hatchery needs. Documents have been completed and are ready for review for both topics.

For Derivation of natural-area $S_{MSY}$ for Sacramento River fall Chinook, the SRWG has completed a draft report that will be finalized by the deadline for methodology review materials. The report discusses four potential data sources to inform the analysis, the pros and cons of each, and a fully documented analysis based on the preferred dataset. The report also describes the reasons for the choice of preferred dataset, includes appendices presenting analyses of the other datasets as sensitivities, and discusses the potential for further analyses in the future if and when new data are available that could allow for improved analyses.

For Methods for deriving a total (natural areas plus hatchery) escapement objective based on consideration of natural production and hatchery needs, the primary document is a previously published journal article (Satterthwaite 2023). As noted, when this topic was first proposed for review, the hatchery escapement goals included in that paper may be out of date. The SRWG has obtained updated calculations of hatchery escapement requirements appropriate for current/planned production goals, and prepared a brief report applying the methods in Satterthwaite (2023) to those updated goals. This report could be included as an addendum to the review materials.

References:

Satterthwaite, W. H. 2023. An approach to defining a Sacramento River Fall Chinook escapement objective considering natural production, hatcheries, and risk tolerance. San Francisco Estuary and Watershed Science 21(3):3. Available from: https://doi.org/10.15447/sfews.2023v21iss3art3

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