

## SALMON TECHNICAL TEAM REPORT ON SACRAMENTO RIVER FALL CHINOOK WORKGROUP PROGRESS REPORT AND RECOMMENDATIONS

The Salmon Technical Team (STT) has reviewed the Sacramento River Fall Chinook ad-hoc Workgroup (SRWG) progress report, and was briefed by SRWG Chair Will Satterthwaite on Wednesday, November 13. The STT appreciates the extensive effort of the Workgroup to outline current and planned work on:

1. Development of an exploitation rate corresponding to maximum sustainable yield ( $F_{MSY}$ ),
2. Derivation of a spawning escapement level representative of MSY ( $S_{MSY}$ ),
3. Development of a conservation objective for SRFC, and
4. Use of a cohort reconstruction developed for SRFC.

In addition, the SRWG report identified some items for which STT feedback was solicited. These items are addressed below.

### **Potential alternatives to the estimate of $F_{MSY}$ : Optimal Yield**

If the proposed estimate of  $F_{MSY}$  is not adopted for use, there could be value in identifying an optimal level of production or yield as a management target. The SRWG is recommending further development of what an optimal level of production might be, and identifies potential methods that could be used to develop this value. There is some precedent for identifying conservation objectives for salmon stocks that take into account needs for hatcheries and the capacity of natural spawning areas. For example, the conservation objective for SRFC is partly based on "...providing adequate escapement of natural and hatchery production...", and this language is retained in the Salmon Fishery Management plan (FMP). However, amendment 16 to the FMP specified that management should be based on the principle of MSY, which resulted in the current control rule for SRFC being based, in part, on the  $S_{MSY}$  value of 122,000 natural and hatchery area spawners.

### **Conservation objective based on total escapement**

The SRWG notes that the use of a conservation objective based on total escapement in place of an  $S_{MSY}$  based on natural-area spawners could pose challenges for preseason planning models. While the Sacramento Harvest Model does not currently have a module that projects escapement to natural areas only, the Klamath Ocean Harvest Model (KOHM) has this capability, and the method used for Klamath River fall Chinook could be modified for use with SRFC.

PFMC  
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