

MODEL EVALUATION WORKGROUP REPORT ON
SALMON METHODOLOGY REVIEW

The Model Evaluation Workgroup (MEW) has a few items ready for the Methodology Review agenda, all related to Chinook Fishery Regulation Assessment Model (FRAM) modeling. This past year considerable progress has been made on developing a Chinook FRAM Base Period using recent year Coded Wire Tag recoveries which should better represent current stock abundances and recent fishery patterns. The core algorithms of the Chinook FRAM model won't change; however, several issues have been identified within the model and are being addressed. The MEW believes methods that address a few of these issues can be reviewed prior to the completion of a updated Chinook Base Period. This would lessen the workload when the new Chinook Base Period comes before the Methodology Review group (anticipated October 2015). The first item is a progress report with work continuing through the summer of 2015; while the next two pertain to potential usage for 2015 pre-season planning process.

1. Progress Report: Development of new Chinook FRAM base period incorporating recent year (2007-2012) CWT recovery data, encounter rates, etc and modifications to FRAM algorithms on assessing sublegal and legal encounters and changes in minimum size limits.
2. Development of a standardized methodology for calculating Age-2 Chinook forecasts based upon the stock specific Age-3 forecast. This methodology will address the problem of setting Age 2 abundances when annual forecasts for FRAM stocks are in terms of Age-3 and older fish. Having Age-2 Chinook forecasts consistent with current production/abundance will help address Chinook FRAM's sensitivity to the age composition of forecasts, and will provide more year-to-year stability to stock-specific exploitation rates. Implementation of this methodology would also help address the discrepancies between observed sublegal encounters and model estimated values.
3. Method to update non-local Chinook stock impacts in terminal fisheries. Coded Wire Tag data has shown that the high rate of non-local stock impacts in the Terminal Hood Canal net fisheries and the Terminal South Puget Sound net fisheries in the present Chinook Base Period is unrealistic. An alternate method of calculating non-local impacts will be presented that will better estimate impacts on these stocks prior to the implementation of the new Chinook Base Period.