From: Sent: To: Cc: Subject: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov> Thursday, December 6, 2018 10:47 AM Maria Rea Howard Brown Winter-Run Life Cycle Model in ROC on LTO BA

Maria --

We have identified potential issues with the inclusion of the SWFSC Winter-Run Life Cycle Model in the ROC on LTO BA. We believe that this should be elevated for Barry to discuss with Interior. Below I identify the issues, positions, and a potential path forward.

Please feel free to ask me if you have any questions.

Thanks, Cathy

**Issue:** Winter-run Life Cycle Model is not expected to be included in the January 31, 2019, BA submission, and we are unsure at this time whether there will be a "supplement" to the BA that could include it. There is therefore right now the risk that the BA package will not include a WRLCM run, which is arguably an insufficient consultation package.

Additionally, we are not sure that Reclamation will provide CalSim results that reflect any revisions to PA resulting from the current tech assistance. Any WRLCM runs that are executed using the CalSim results of the PA as it is today risk not accurately characterizing any changes to the PA.

**Reclamation Position:** The requirement that the draft BA effects analysis be completed by Dec 14, 2018, prevents inclusion of WRLCM in Jan 31, 2019 BA submission. They have not committed to a supplement. Reclamation will NOT fund any running of WRLCM "for the BiOp", but only for the BA (which is wholly covered in their SOW with SWFSC).

**NMFS Position:** The WRLCM is best available science and needs to be run for the BiOp at the least, but should be in the BA or a supplement for a sufficient package. WRLCM runs should use CalSim inputs that characterize any revisions to the PA resulting from technical assistance.

**Potential Path:** Reclamation provide BA supplement that includes WRLCM runs based on CalSim that characterizes revisions to PA, and complete this by mid-February 2019 to allow incorporation into the BiOp. This approach requires CalSim runs to be complete by mid-January at the latest, which allows SWFSC approximately one month to run the model and allow interpretation of results (this is expedited based on my experience). Therefore Reclamation needs to identify final PA by early-January 2019 to allow time for CalSim runs to be executed by mid-January 2019.