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**From:** Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>  
**Sent:** Tuesday, February 12, 2019 2:00 PM  
**To:** Allen, Kaylee (kaylee\_allen@fws.gov); Jana Affonso  
**Cc:** Maria Rea; Barbara Byrne; Howard Brown  
**Subject:** CalSimII Support

Kaylee and Jana --

Below is a list of the types of CalSimII support that we request from Derek Hiltz. There are a few specifics included here, and our team will be able to add more as they complete their step through the sufficiency review and focus on developing an effects analysis. Still, I wanted to provide this as a start (sorry for wonky formatting).

I'm happy to talk through this sometime, and/or arrange for Derek to have some time with our team for face-to-face discussion.

Thanks -  
Cathy

- Understanding limitations or nuance of how the proposed action (PA), as written, is implemented in CalSim logic.
- Understanding and interpreting results that are relevant for evaluation of effects to species under NMFS' jurisdiction, including identification of model artifacts, sensitivities, or insensitivities that should be considered when analyzing results.
- Identifying trade-off or constraining logic effects of implementation of CalSim logic and how those manifest in results that NMFS may want to use in analysis.
- Identifying major differences between the Current Operations scenario and the Proposed Action scenario, to better understand the proposed action and how that does or does not incorporate previously-consulted upon actions.
- Identifying and evaluating proposed revisions/modifications to the PA to better support species persistence, and possibly developing and conducting CalSim scenarios to propose as alternative actions.
- There are no provisions in PA to build storage in Shasta to meet any targets - how is this characterized in the modeling? Are there triggers for Keswick release schedules, reductions in deliveries, preferential releases from Oroville and Folsom, etc.
- Is "demand shifting" in April and May characterized in the modeling? Can it provide more detail on what this means?
- Tier 1-4 are changes from the current RPA – how are these components modeled? Would Reclamation short the service contracts to meet the storage needed to reach Tier 1 (or any higher tier)?
- Does the modeling indicate the exact operational criteria for post-Shasta Dam raise? The PA incorporates operations by reference from feasibility study but does not specify them.