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**From:** Maria Rea - NOAA Federal <maria.rea@noaa.gov>  
**Sent:** Thursday, December 15, 2016 11:12 AM  
**To:** Katherine Cheney - NOAA Federal; Christina Durham; Jim Milbury; Garwin Yip; Brycen Swart  
**Subject:** Shasta messaging

**2017 Amendment:** This amendment is based on the following considerations:

1. Operations of Shasta and Keswick reservoirs were the subject of multiple annual reviews. Shasta operations were one of the main focuses in the 2015 annual review.
2. 2014 and 2015, the third and fourth years of drought conditions (*e.g.*, dry hydrology, high air temperatures), resulted in extremely challenging operations of Shasta and Keswick reservoirs that resulted in many lessons learned on what to consider in the development and implementation of both the February forecast process and the May temperature management plan process.
3. The main conclusion that NMFS has made is that the Shasta RPA actions are not performing as we thought it would when we wrote the 2009 CVP/SWP operations Opinion. The performance metrics in RPA Action I.2.1 have not been met. Even more important, the level of incidental take in 2014 and 2015 was greater than analyzed or authorized in 2009 when the RPA was developed. Therefore, a reinitiation trigger has been met. In light of this, Reclamation recently requested reinitiation of the CVP/SWP operations consultation. NMFS expects that reconsultation will provide a comprehensive analysis of integrated operations.
4. New science and models, for example, the River Assessment for Forecasting Temperature decision support tool and the temperature-dependent mortality model, are available that should be included in the forecasting and temperature management process.
5. Finally, since the 2011 amendment, there have been clarifications and adaptive management changes made that are reflected in this 2017 amendment to update the RPA.

NMFS has amended the RPA to reflect new best available scientific and commercial information and to ensure that take authorizations associated with RPA Action Suite I.2 are still valid, based on lessons learned from water years 2014-2016. The amendment is consistent with the Opinion's underlying analysis and conclusions. Rationale provided for the specific amendments explain the need for the amendments and how they meet the objectives of the specific RPA actions.

This amended RPA supercedes the 2009 RPA with 2011 amendments. Amendments to the Shasta RPA actions will be issued in a phased approach. As mentioned above, the current amendment is needed to reflect new best available scientific and commercial information, and lessons learned from operations during the drought conditions throughout water years 2014-2016. There is also ongoing collaborative science being developed through monitoring work, and refinement of temperature forecasting models, that will inform the implementation and likely success of meeting the biological objectives identified for the RPA actions, that may warrant a subsequent amendment. Finally, these new and refined tools and monitoring will be used to inform the reconsultation of CVP/SWP operations.

Maria Rea  
Assistant Regional Administrator, California Central Valley Office

NOAA Fisheries West Coast Region  
650 Capitol Mall, Suite 5-100  
Sacramento, CA 95814  
(916) 930-3600  
[Maria.Rea@noaa.gov](mailto:Maria.Rea@noaa.gov)



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