

## **DRAFT; FOR DISCUSSION PURPOSES ONLY**

### **DISCUSSION DRAFT Reclamation Concepts on Shasta Division RPA Adjustments**

October 12, 2016

Reclamation has initially reviewed the Draft Outline and Timeline provided by the National Marine Fisheries Service (NMFS) for discussion purposes on potential adjustments to the Shasta Division Operations Reasonable and Prudent Alternative (RPA) from the 2009 Biological Opinion (BiOp) on the Coordinated Long-term Operation of the Central Valley Project (CVP) and State Water Project (SWP). Based on that initial review, Reclamation believes that updating the understanding between our two agencies with the comments in Attachment 1 to this document will help develop a background and rationale for more reliable operations for listed species and other project purposes under the RPA Adjustments Process.

Reclamation also believes that some of the concepts contained in Section 2 – “Ideas for Adjustments” of the draft document from NMFS may have implications for CVP operations at-large, may exceed NEPA compliance on the existing RPA, and would require a much longer schedule. We are concerned that some of these adjustments may not be consistent with the BiOp’s underlying analysis and conclusions. We recommend exploring several of those concepts as part of the larger reinitiation of consultation on the Coordinated Long-term Operation of the CVP and SWP, or in some cases, carrying the concepts forward in a subsequent adjustment process that would more realistically accommodate the timeline necessary for completion of environmental compliance documentation. Based on these considerations, Reclamation is providing the following concepts as an initial draft of potential adjustments for continued discussion in the near-term.

#### **Concepts for Near-Term Adjustments**

General: Adjustments to the RPA should focus on accomplishment of biological objectives for the species. Reclamation and NMFS should focus on how interactive processes during the water temperature management season can meet biological objectives while remaining within the existing environmental coverage under NEPA, and preserving the operational flexibility of the CVP to avoid or reduce conflicts with other listed and targeted species, flood management, water quality, water supply, and other project purposes of the CVP. Adjustments in the performance measures to focus on biological objectives may improve the efficacy of RPA.

#### Responsibilities and Procedures of Technical Teams (11.2.1.1):

Update to reflect a revised structure of technical/management teams involved in the decision making processes for operational planning and associated biological responses. Also, adjusting the timeline for the completion of the annual report would provide a more accurate reporting of whether biological and operational objectives are achieved.

#### Research and Adaptive Management (11.2.1.2):

Continue to refine and develop water temperature forecasting and modeling tools for Sacramento River temperature operations.

Potentially conduct comparisons of predictive modeling during scenario planning with final water temperature management plan documentation to track biological responses. Review these

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results upon completion of the temperature management season through independent review (such as during the Biennial RPA Implementation Review Process) and agency review during development of the annual reports mandated by the BiOp.

Conduct further studies to understand other stressors associated with water temperatures and operations, such as disease, predation, lack of spawning and rearing habitat, food web supply, bioenergetics, etc.

### Monitoring and Reporting (11.2.1.3)

Updates to potentially include conducting: (1) redd-dewatering and juvenile stranding monitoring (that have been occurring since 2012 based on temporary funding); (2) additional temperature and dissolved oxygen monitoring in the Sacramento River; (3) spawning gravel and juvenile rearing habitat monitoring; and (4) additional temperature and dissolved oxygen monitoring in Shasta and Keswick reservoir.

### Shasta Division RPA Actions (11.2.2) Performance Measures (Action I.2.1)

Revise to ensure this provides some form of utility for assessing biological objectives, or as an alternative, potentially remove this section.

### Shasta Division RPA Actions (11.2.2) Spring Actions/Summer Action (Actions I.2.3/I.2.4)

Develop a process/procedure to ensure flows are minimized in the event spring (end of April/May) projections of lake elevation will not provide for late spring/early to mid-summer use of upper gates on the Temperature Control Device.

Develop a process for use of conservative but reasonable forecast parameters (hydrology and meteorology) in the development of the Sacramento River temperature management plan. In addition, focus the development of the plan on the results of survivorship modeling/estimates.

For the summer action (I.2.4) - revise action to target temperature management location at or near the location of the redds.