Charge to the Delta Science Program Independent Review Panel for the
2011 OCAP Integrated Annual Review

Orientation and Focus

The intent of the annual review is to inform National Marine Fisheries Service (NMFS) and United States Fish and Wildlife Service (USFWS) as to the efficacy of the prior year’s water operations and regulatory actions prescribed by their respective Reasonable and Prudent Alternatives (RPAs), with the goal of developing lessons learned, incorporating new science, and making appropriate scientifically justified adjustments to the RPAs or their implementation to support 2012 real-time decision making.

This review will focus on the implementation of the Operations Criteria and Plan (OCAP) RPAs for operations and fisheries for water year 2011 (October 1, 2010 through September 30, 2011) and will review:

(1) Whether implementation of the RPA action met the intended purpose of the Action;

(2) The agencies’ response to and implementation of independent review panel recommendations from the prior year’s OCAP Annual Review;

(3) Study designs, methods, and implementation procedures used;

(4) The effectiveness of the process for coordinating real-time operations with the technical teams;

(5) Recommendations for adjustments to implementation of the RPA Actions or Suite of Actions for meeting their objectives.

Materials to be Reviewed

1) Each independent review panelist will review the following documents (technical team reports) prior to attending the two-day public workshop. These documents will be provided in electronic format.
   a) Clear Creek Technical Working Group (CCTWG) Annual Review Report
   b) Interagency Fish Passage Steering Committee (IFPSC) Annual Review Report
   c) Sacramento River Temperature Task Group (SRTTG) Annual Review Report
   d) Red Bluff Diversion Dam Technical Team (RBDDTT) Annual Review Report
   e) American River Group (ARG) Annual Review Report
   f) Stanislaus Operations Group (SOG) Annual Review Report
   g) Delta Operations for Salmonids and Sturgeon Group (DOSS) Annual Review Report
   h) Smelt Working Group (SWG) Annual Review Report
Additional reports for the purpose of historical context:

- NMFS’ 2009 RPA with 2011 amendments
- USFWS Biological Opinion on the Long-Term Operational Criteria and Plan (OCAP) for coordination of the Central Valley Project and State Water Project (pages 279-282 and 329-356)
- RPA Summary Matrix of the NMFS and USFWS OCAP Opinion RPAs
- National Academy of Science’s March 19, 2010, report
- VAMP peer review report
- State Water Board’s Delta Flows Recommendations Report
- NMFS RPA, Appendix 2-B, Task 4: Green Sturgeon Research

Scope of the Review
This review is to address the following questions:

1) How well did implementation of the RPA Actions meet the intended purpose of the actions?

2) Where the 2010 Independent Review Panel made recommended adjustments to implementation of the RPA Actions,
   a) Were the adjustments made?
   b) How well did these adjustments improve the effectiveness of implementing the actions?

3) How effective was the process for coordinating real-time operations with the technical teams’ analyses and input as presented in the OCAP Opinions? [NMFS’ 2009 RPA with 2011 amendments (pages 8-9) and USFWS’ OCAP Opinion (page 280)]?

4) (a) Were the scientific indicators, study designs, methods, and implementation procedures used appropriate for evaluating the effectiveness of the RPA Actions?

   (b) What scientific indicators, study designs, methods, and implementation procedures might be more appropriate for evaluating the effectiveness of the RPA Actions?
5) How can the implementation of any of the RPA Actions be adjusted to more effectively meet the objective of the RPA Action (or in some cases a Suite of Actions)?

6) How should multi-year data sets on OCAP RPA Action implementation be used to improve future implementation of the RPA Actions?

**Products**
The IRP will prepare the following products according to the schedule outlined in the Scope of Work:

- Preliminary assessments and impressions
- Final Review Report

**Review Panel Membership**
- James Anderson, Ph.D., University of Washington
- James Gore, Ph.D., University of Tampa
- Ron Kneib, Ph.D., RTK Consulting & University of Georgia (Emeritus)
- Mark Lorang, Ph.D., University of Montana
- John Van Sickle, Ph.D., U.S. Environmental Protection Agency’s Western Ecology Division

**Meeting Format**
The meeting will be conducted over two days in Sacramento, CA. The first day of the meeting will involve presentations by key individuals from each technical team identified in the NMFS Biological Opinion (Action 11.2.1.1) as well as the USFWS’ Smelt Working Group. Review panel members may be asked to provide a brief biographical sketch as it relates to the review. Review panel members should also be prepared to discuss any questions regarding the review materials with the technical team presenters at the meeting. The Lead Scientist or his designee will facilitate discussions. The morning of the following day, the panel will meet in private to deliberate on the charge questions. That afternoon, the public meeting will reconvene at which time the panel will provide a presentation of their initial assessment and impressions.