Charge to the Delta Science Program Independent Review Panel for the 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 Alternative (RPA) Actions, with the goal of developing lessons learned, incorporating new science, and making appropriate scientifically justified adjustments to the RPAs or their implementation to support 2011 real-time decision making.

This review will focus on the implementation of the Operations Criteria And Plan (OCAP) RPAs for operations and fisheries for the time period of June 4, 2009 (date the NMFS' Opinion was issued) through the prior water year for the NMFS Opinion, and October 1, 2009 through September 30, 2010 for the USFWS Opinion, and will review:

(1) The effectiveness of the RPA Actions or Suite of Actions in meeting the objectives of the RPAs;

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

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

(4) Potential improvements to the RPA Actions for meeting the objectives of the RPA Actions or Suite of Actions.

Materials to be Reviewed

1) Each independent review panelist will review the following documents 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) Annual Report of Activities: Interagency Fish Passage Steering Committee
   c) OCAP Biological Opinion Review (DRAFT June 2009 – September 2010): Fish Actions Implemented Pursuant to the NOAA Biological Opinion on the Sacramento River
   d) Sacramento River Temperature Task Group
   e) Red Bluff Diversion Dam Technical Team 2010 Report to the Independent Review Panel
   f) Annual Review of American River Operations as They Relate to Implementation of the Reasonable and Prudent Alternative for the Central Valley Project and State Water Project Operations Criteria and Plan

i) ARG Attachment 1 - USFWS Draft Summary of Lower American River Fish Actions 10-7-2010
ii) ARG Attachment 2-1 - Meeting Notes Jun 09-Nov 09
iii) ARG Attachment 2-2 - Meeting Notes Jan 10-Sep 10
iv) ARG Attachment 3 - Chapter 1 – Background
v) ARG Attachment 4 - Chapter 3 - Water Operations Summary Jun 09-Sep 10

g) Annual Report of Activities (June 5, 2009 to September 30, 2010): Stanislaus Operations Group (SOG)
h) Delta Operations for Salmonids and Sturgeon Group – 2010 Annual Report – October 2010
i) Smelt Working Group Report to the Independent Review Panel - Water Year 2010
   i) Attachment 1 - Delta Smelt Risk Assessment Matrix
   ii) Attachment 2 - Final Smelt Working Group Notes
   iii) Tools for Delta Smelt Management Workshop Summary

Additional reports for the purpose of historical context:

- NMFS OCAP Opinion, section 11.2.1.2, pages 583-671
- USFWS Biological Opinion on the Long-Term Operational Criteria and Plan (OCAP) for coordination of the Central Valley Project and State Water Project (pages 279-285 and 324-381)
- 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
- Task 3: Green Sturgeon Research

Scope of the Review

This review is to address the following questions:

1) (a) How effective was the implementation of each RPA Action (in some cases a Suite of Actions) in meeting its objective (NMFS' OCAP 11.2.2, pages 587-671 and USFWS' OCAP Attachment B, pages 324-381)?

   (b) How effective was the process for coordinating real-time operations with the technical teams' analyses and input as presented in the OCAP Opinions? [NMFS' OCAP Opinion (pages 582-583) and USFWS' OCAP Opinion (page 280)]?

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

   (b) What scientific study designs, methods, and implementation procedures might be more appropriate for evaluating the effectiveness of the RPA Actions?

(c) How could the scientific indicators used for measuring the effectiveness of the RPA Actions be improved?

3) How can each RPA Action be improved to more effectively meet the objective of the RPA Action (or in some cases a Suite of 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
- Presentation of Findings (optional at Delta Science Program's discretion)

Review Panel Membership

- James Anderson, Ph.D., University of Washington
- Ron Kneib, Ph.D., University of Georgia, Emeritus
- Stacy Luthy, Ph.D., University of the Pacific
- Pete Smith, Ph.D., USGS retired

Workshop Format

The workshop will be conducted over two-days in Sacramento, CA. The first day of the workshop 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 are requested to submit questions one week prior to the workshop so that they may be addressed in the presentations. Review panel members may be asked to provide a brief biographical sketch as it relates to the review. 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.