

Charge for the 2005 OCAP Technical Review Panel

Background

The purpose of this independent review is to evaluate and comment on the use of the best available scientific and commercial information as it pertains to the development of the 2004 National Marine Fisheries Service (NMFS) biological opinion on long-term Central Valley Project and State Water Project Operations, Criteria and Plan (OCAP).

The review will focus on the technical aspects of the NMFS biological opinion and the information provided in the OCAP biological assessment (BA). The review is not to determine if NMFS' conclusions regarding the projects potential to jeopardize the continued existence of listed Central Valley salmonids are correct. Rather it is to evaluate the information used and whether anything was missed in the data, analyses, and results used to reach those conclusions in the opinion.

The Review Panel's charge is to evaluate and comment on the technical information, models, analyses, results and assumptions that formed the basis for the assessment of the proposed long-term water operations for the projects described. The Panel should consider pertinent background information such as; previous NMFS biological opinions that pertain to Central Valley Project water operations (*i.e.*, 1993 Winter-run Chinook salmon opinion and the 2000 Trinity River Restoration opinion) and the Calfed adaptive management process (*i.e.*, the Salmon Decision Process). Panelists should review both the data provided in the OCAP BA and the NMFS biological opinion. For example, the panelists should review how NMFS assessed the individual responses of fish to certain effects (*i.e.*, flows, water temperatures, diversions, etc.) and whether NMFS missed best available information on how fish are likely to respond to those impacts.

Fundamental questions the Panel should consider include:

- Are the technical tools used in the OCAP biological opinion (*e.g.*, modeling, calculations, analytical and assessment techniques) able to determine impacts to the individuals and to the population?
- Are assumptions clearly stated and reasonable based on current scientific thinking?
- Do the data, analyses, results and conclusions presented lead one to a thorough understanding of the risks to individuals and populations from the proposed project impacts? If not what relevant scientific information was missed that would be counter to the impact that was expected?
- Are the analytical techniques capable of determining the significance of project impacts for Endangered Species Act (ESA) purposes? If not, what additional or alternative analytical techniques are recommended? What available science do we need to best address the impacts of large-scale water projects?

- Were uncertainties considered in the opinion? If so, were they described in a way that frames the data or puts it in the proper perspective (*e.g.*, the appropriate time scale, or the likelihood that an event will happen). What uncertainties and limitations were not addressed?
- In the absence of available information to establish probable responses to impacts (*e.g.*, survival across the Delta, steelhead population estimates, steelhead losses at the Delta pumps, spring-run Chinook salmon populations above Red Bluff Diversion Dam), were reasonable scenarios developed to identify types of exposure? Were comparisons made to other species with similar impacts?
- Were relevant published and unpublished studies on listed fish species, similar species, ecological theory, and computer simulation/modeling missed?
- Was evidence provided to support the species response to demographic changes (*e.g.*, changes in fecundity rates, changes in growth rates for individuals, and change in number of individuals that immigrate or emigrate from a population)? Was evidence provided to support the conclusions about how the proposed actions affect the species' demography?

Further Purposes of the Review

In addition to answering the fundamental questions posed above, another intended use of this review is to help ensure that best available information is used for future ESA consultations such as; early consultation components for OCAP, and the South Delta Improvement Program. Reviewers are expected to address the inefficiencies in the NMFS biological opinion (*i.e.*, Did the biological opinion apply the available information in a scientifically sound manner?), but not whether or not project operations need to be reinitiated under the ESA.

The OCAP Technical Review Panel

The panel will consist of scientists who will bring strong technical competence relevant to the issues associated with the effects of water project operations on anadromous salmonids. Through publications and participation on similar panels elsewhere panel members have demonstrated the ability to deal with complex ecological issues in a balanced manner. The group will include both scientists with local expertise and scientists with relevant discipline knowledge and experience outside the Central Valley. The range of disciplines included has been determined by the complex nature of the questions the panel is being asked to address

Individual Criteria used to select panel members

- nationally and internationally recognized
- strong publication record and/or record of scientific leadership

- experience with program-level reviews of resource management and complex interagency programs
- track record of fair and unbiased, yet constructive criticism

Overall Criteria

- balance between local and outside experts
- range of expertise that spans program-wide scientific issues.

Review Format

CALFED will initially provide panel members with two documents containing information related to the questions listed above. These are:

1. Long-term Central Valley Project and State Water Project Operations Criteria and Plan – Biological Assessment, including appendices. US Bureau of Reclamation. June 30, 2004.
2. Biological Opinion on the long-term Central Valley Project and State Water Project Operations Criteria and Plan. National Marine Fisheries Service. October 2004.

Other material will be provided to the panel as requested during the review. All material sent to the panel, or links to it, will be posted on the CALFED website.

To facilitate the review, CALFED will convene a 2-day public workshop in the Sacramento area on October 12 and 13, 2005. The workshop will consist of presentations by federal and state agency and stakeholder representatives describing the scientific information used to support conclusions in the biological assessment and biological opinion. There will be ample time for questions and discussion among panel members, presenters and CALFED staff.

By December 15, 2005 panel members will submit a report to the CALFED Lead scientist documenting their understanding of the issues.

CALFED will distribute the panel report to NMFS and post it on the CALFED website. CALFED will also request the panel chair (and other members to the extent possible) to present its finding at a public meeting in the Sacramento area – probably in January 2006.