Independent Scientific Peer Review of the Criteria for Protecting Adult Salmon in the Lower Klamath River

Date: July 13, 2016

Originating office:

Bureau of Reclamation, Northern California Area Office, 16349 Shasta Dam Blvd, Shasta Lake, California 96019

Reclamation roles:

Director or delegated manager: David Murillo, Regional Director, Mid-Pacific Region, Bureau of Reclamation

Peer review lead: Russell Grimes, Supervisory Natural Resources Specialist, Bureau of Reclamation

Subject and Purpose: The Draft Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River (LTP) is intended to provide the fundamental elements of a long-term plan for protecting adult salmonids entering the lower Klamath River in late summer. Reclamation developed trigger criteria to aide in determining when to make flows available to the lower Klamath River. As such, the trigger criteria are foundational to analyses being prepared for the LTP, which will be presented in an Environmental Impact Statement (EIS) prior to implementing these associated flows. This LTP is a result of the 2002 fish die-off in the lower Klamath River from an epizootic disease outbreak. An Independent Scientific Peer Review process will be used to review these criteria.

<u>Impact of Dissemination</u>: Under Reclamation policy CMP P14 Peer Review of Scientific Information and Assessments in fulfillment of the Final Information Quality Bulletin for Peer Review (70 FR 2664-2677) and implementation of the Information Quality Act (Pub. L. 106-554) the science informing the LTP for Protecting Adult Salmon in the Lower Klamath River EIS is determined to be Influential Scientific Information.

<u>Peer Review Scope</u>: The subject of this review will consider the science used to develop the trigger criteria. In turn it will inform the decision to implement an alternative.

Reclamation and Klamath River partners have spent considerable time developing and refining scientifically-based criteria for considering flow augmentation, culminating in the Trinity River Restoration Program (TRRP) Fall Flow Subgroup recommendations developed May 31, 2012, the May 28, 2012 TRRP Fall Flow Workgroup Summary, the 2013 Joint Memorandum, the 2015 Fish and Wildlife Service Memo, criteria associated with the 2015 Environmental Assessment for Flow Augmentation, and the 2016 Frequency Technical Memo. This review is focused solely on the use of flow criteria in its application to prevent an epizootic disease outbreak in the

lower Klamath River. Peer reviewers will be asked to provide responses relative to the following questions:

Question 1. Are the implementation criteria supported by the science?

Question 2. Have the assumptions and uncertainties associated with using the flow criteria been appropriately characterized?

<u>Manner of Review, Selection of Reviewers</u>: MWH Global will coordinate with Reclamation to identify reviewers who will comprise the peer review panel and who possess the expertise identified below. MWH will also assure that peer reviewers do not have a conflict of interest.

Number of Peer Reviewers: It is anticipated that 3-5 peer reviewers will be used.

Reviewer Qualification and Selection Process: The peer reviewers will have at least 10 years' experience with expertise in hydrology, fisheries biology, fish disease, fish health, or systems ecology (or similar disciplines). Peer reviewers will have the education, professional experience, peer recognition in their field, and have contributed to their field of expertise. Reclamation will review the curriculum vitae of the potential reviewers prior to their selection by MWH.

<u>Opportunity for Public Review</u>: No, the Independent Scientific Peer Review process will be completed prior to providing the LTP Draft EIS for public comment.

Oversight of the Peer Review Team: Oversight of the contractor and peer reviewers will be limited to MWH Global and Reclamation. Reclamation will prepare a scope of work for the contractor that includes peer review questions to be answered, formatting requirements for the report, reference materials, and deliverable dates. Selected reviewers will be independent of MWH Global and will not have involvement in the development of the EIS.

Timing of Review: July, 2016 – December, 2016

<u>Delivery of Findings</u>: MWH will provide a synthesis report of the findings at the completion of the review period. At a minimum, the report will include a description of the peer review process, subject being reviewed, findings, and recommendations if any of individual peer reviewers. The report will be provided digitally and as a hardcopy to Reclamation.

This peer review is not subject to the Federal Advisory Committee Act (FACA) because reviewers are being asked to provide individual reviews on the subject matter. Reclamation is not seeking consensus advice from the reviewers as a group.

Response to Peer Review: At the conclusion of receiving peer review comments, Reclamation will publish the synthesis document on the peer review website (http://www.usbr.gov/main/qoi/peeragenda.html) as well as a consolidated response to comments to be maintained for one-year on that website.

Agency contact: Russell Grimes Supervisory Natural Resources Specialist, Bureau of Reclamation