

# **Peer review of EDT in its application to quantify the benefits to the Salmon Fishery as proposed within the Upper San Joaquin Basin Storage Investigation.**

Date: August 14, 2015

Originating office: Mid-Pacific Region, Bureau of Reclamation, 2800 Cottage Way, Sacramento, California 95825

## Reclamation roles:

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

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

Noticing: Federal Register notices will be provided announcing the formation of a peer review team and completion of the final report.

## Subject and Purpose:

The Upper San Joaquin River Basin Storage Investigation (USJRBSI) is a feasibility study by the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) in cooperation with the California Department of Water Resources (DWR). The purpose of the Investigation is to determine the type and extent of Federal interest in a potential project to expand water storage capacity in the Upper San Joaquin River watershed to: (1) improve water supply reliability and flexibility of the water management system for agricultural, municipal, and industrial (M&I), and environmental uses; and (2) enhance water temperature and flow conditions in the San Joaquin River downstream from Friant Dam for salmon and other native fish.

Underlying the determination of Federal interest is a determination of the Net Economic Development (NED) determined within the planning framework provided within the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, known as the Principles and Guidelines. The Principles and Guidelines identify that “The Federal Objective of water and related land resources project planning is to contribute to national economic development consistent with protecting the Nation’s environment....” In December 2014 President Obama released updated Principles, Requirements, and Guidelines for Federal Investments in Water Resources. Underpinning both guidelines is the determination of Federal interest which includes environmental factors.

Impact of Dissemination Under Reclamation policy CMP TRMR-30 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 USJRBSI is determined to be a highly influential scientific assessment.

**Peer Review Scope:**

There is one aspect of the science informing the feasibility study that is subject to peer review. The area relates to use of modeling to estimate benefits to fish habitat, which is used to inform the economic analysis used to determine the Federal interest. Peer reviewers will be asked to provide responses relative to the following questions:

**Fish Habitat Modeling Questions:** The Ecosystem Diagnosis and Treatment model (EDT) is an accepted and well documented model used extensively on the San Joaquin River to assess restoration actions and associated habitat improvement. Evaluation of the EDT model within the context of habitat modeling is considered to be outside the scope of this review. This review is focused solely on the utilization of EDT in its application to quantify the benefits as proposed within the Investigation feasibility study.

Question 1. Is displaying results for the EDT model in terms of fish abundance to compare future population outcomes amongst alternatives a recognized suitable application of the EDT model?

Question 2. Have the assumptions and uncertainties associated with utilizing a habitat model for the intended purpose been appropriately characterized?

**Manner of Review, Selection of Reviewers:** Review will be conducted as individuals contributing to a synthesis document of expert peer review. An independent consulting firm with expertise in conducting peer review will identify reviewers to meet the Peer Review Scope and within the expertise identified below. The consulting firm will also assure that peer reviewers do not have a conflict of interest. The consulting firm will ultimately facilitate a conversation amongst individual peer reviewers before the preparation of a single report of peer review comments.

**Number of Peer Reviewers:** It is anticipated that 3-4 peer reviewers will be utilized.

**Reviewer Selection Process:** The peer reviewers will have least 10 years' experience with expertise in hydrology, fisheries science, aquatic ecology, and / or conservation biology and water management. Peer reviewers will have the education, professional experience, peer recognition in their field, and have contributed to their field.

**Opportunity for Public Review:** Yes, public comments received during the public comment period of the USJRBSI Draft EIS and Draft Feasibility Study will be provided to the peer reviewers during their review.

**Oversight of the peer review team:** Oversight of the contractor and peer review team will be limited to contracting, approval of the peer review proposal, providing documents to the peer review team, and review of the report. Reclamation will prepare a scope of work for the

contractor that includes research questions to be answered, formatting requirements for the report, reference materials, and deliverable dates.

Timing of review: September 1, 2015 to October 31, 2015

Delivery of findings: The peer review team will deliver a report of their 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, recommendations, and references. The report will be provided digitally and as a hardcopy to Reclamation.

**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.

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