**DRAFT**

# Outline to Develop a Science and Monitoring Plan

# As Part of a Sacramento River Mainstem Integrated Water and Fish Management Plan

# February 2018

**Objectives**

- Develop an integrated science and monitoring plan that informs operational decisions and restoration activities.
- Cooperatively identify, incorporate and improve tools and models to improve operations and salmon recovery.
- Develop collaborative products that use the best available science and technology.
- Strengthen the organization, structure, transparency, accountability, and efficacy of actions and activities undertaken by a Science and Monitoring Plan.

**Initial Participants/Core Team**

- USBR
  - David Mooney, Josh Israel, Rod Whittler, Heather Casillas
- NMFS
  - Maria Rea, Evan Sawyer, Garwin Yip, Rachel Johnson
- SRSC
  - Thad Bettner, Lewis Bair, Roger Cornwell, Brad Mattson

**Facilitator**

The participants agree that having a facilitator for the meeting is preferred in order to develop and agree on a list of actions, process, outcomes, and schedule. The participants will jointly agree on a facilitator, including how to fund this effort.

**Actions**

1. Identify the necessary science, studies, and monitoring to most efficiently and effectively operate the Sacramento Valley CVP facilities for all project purposes and benefits.
2. Identify and document all existing, current, and on-going studies, models, monitoring and quantify which are for operations and management decisions and/or for recovery.
3. Identify what monitoring is used by existing decision/data bodies to inform decision making.
4. Identify existing venues/groups/agencies that may be participating in science and monitoring within the Sacramento mainstem/hydrologic region.

5. Daylight multiple alternative conceptual models for the relationship between CVP operations, other stressors, and fish for life stages within the Sacramento River.
6. Formulate testable hypotheses on the relationships in an open, transparent, and collaborative method.
7. Identify and implement the monitoring, analysis, operations, and projects necessary to resolve issues of scientific uncertainty relevant to the operation of the CVP or recovery of listed species.
8. Prioritize the restoration projects and operational flexibility necessary to recover the species and relieve ESA pressures in coordination with CVPIA and state initiatives (avoid duplicate overlapping programs and reduce the need for forum shopping).
9. Document improvements in fish populations as a result of implementing projects and new science.

**Process**

1. Create a draft implementation plan based on the actions
2. Invite other participants with interest in the region and this part of the CVP.
3. Incorporate science and data into the Adaptive Resource Management (ARM) process
4. Refine and revise Decision Support Models (DSMs) with new and existing information;
5. Recommend Anadromous Fish Program (AFP) priorities for types of actions, science, and monitoring over a 5-year time horizon.
6. Develop roles and responsibilities.
7. Develop a communication strategy for collaborating with the Core Team and conveying information to stakeholders, the public, and other science efforts such as CSAMP.

**Outcomes**

1. Meet the objectives.
2. Improvement/recovery in species
3. Improved decision and agreement by the participants related to operational decisions and funding needs

**Schedule**

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| By March 9 | Initial Meeting |
| By March 23 | Draft Charter/MOU/MOA |
| By April 20 | Sign Charter including draft Implementation Plan |
| By May 18 | Invite additional participants to review plan and initiate Action Items |
| By June 29 | Start regular meetings, create governance structure, tie effort to Sacramento Mainstem Integrated Water and Fish Plan effort |