

Multiple Objective O&M Concepts and the State Plan of Flood Control

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Presented by:

Christopher Williams, P.E.

Central Valley Flood Planning Office

California Department of Water Resources

Christopher.Williams@water.ca.gov



Presentation Overview

Background and Context

- O&M challenges and needs in the Central Valley
- Central Valley Flood Protection Plan (CVFPP) multi-purpose goals

MOOM Case Studies Evaluation

- Evaluation of Multiple-Objective O&M (MOOM) Case Studies
- How MOOM concepts can inform practices in the Central Valley

Next Steps

- Opportunities and limitations for MOOM

Permitting Issues Related to SPFC O&M

- One of the goals of the Central Valley Flood Protection Plan is to improve O&M
- The cost and time required to obtain permits for O&M activities has significantly contributed to an over \$1 billion backlog of deferred maintenance throughout the State Plan of Flood Control.
- Resolving permitting issues is a key component of making progress toward improving O&M

O&M for CVFPP Multi-Benefit Projects

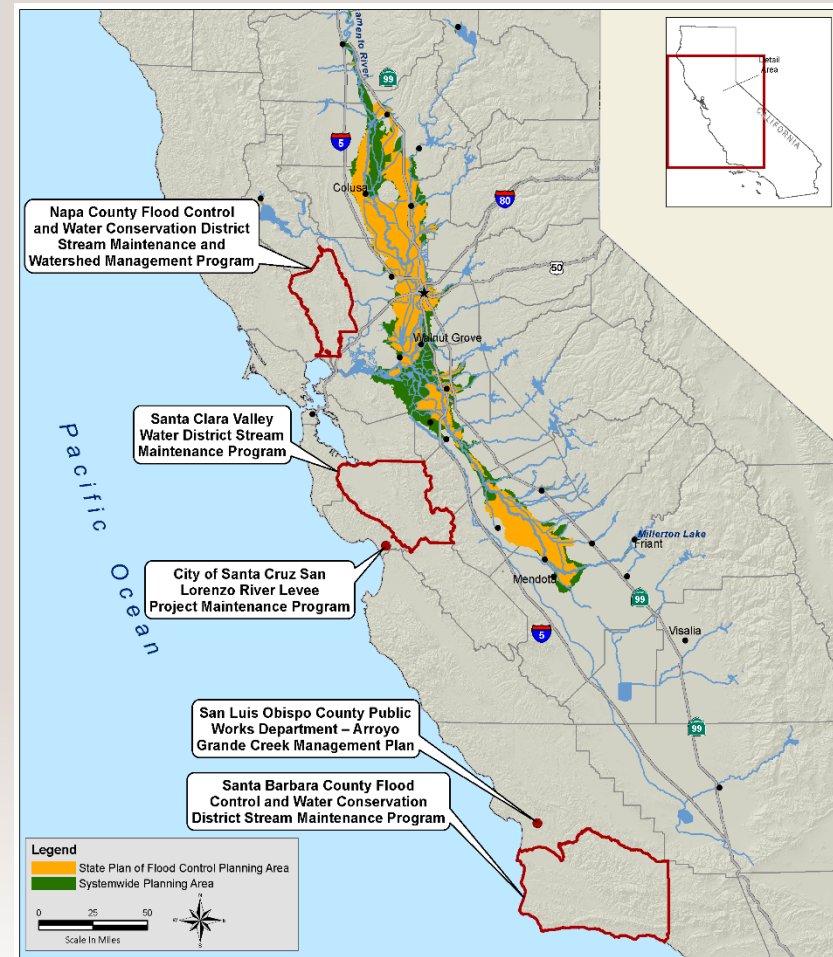
- The CVFPP is about **investment into the State Plan of Flood Control**
- **Multi-benefit projects** are planned as part of CVFPP implementation and will need to be maintained for the variety of benefits they will be designed to provide
- **Need for programmatic guidance or process for long-term O&M for multi-benefit projects**
- Need for an O&M approach that would allow for **maximum return on investment for multiple objectives** (flood facilities + habitat + other uses)

Multiple-Objective O&M Case Studies

Five programs were selected for evaluation:

1. **Santa Barbara County** Flood Control and Water Conservation District Annual Routine Maintenance Program
2. **Santa Clara Valley Water District** Stream Maintenance Program
3. **Napa County** Flood Control and Water Conservation District Stream Maintenance and Watershed Management Program
4. **City of Santa Cruz** San Lorenzo River Levee Project Maintenance Program
5. **San Luis Obispo County** Flood Control and Water Conservation District Stream Maintenance Zones

Although organized on smaller scales than the SPFC O&M program, the issues are similar in terms of organization, permitting, funding, and integration into other water resources programs.



What is Multiple-Objective O&M?

Multiple-Objective O&M (MOOM) programs are flood system maintenance programs that incorporate other objectives, such as habitat stewardship and enhancement, recreation, water quality, water supply, and public education, thereby increasing the ecological, societal, and public benefits that are realized by these programs

What Did We Learn?

- Challenges

- High investment required up front to establish the programs, particularly related to collaboration with resource agencies
- Federal regulations create inflexibility that make a MOOM approach difficult within the SPFC

- Benefits

- Permitting efficiencies
- Ecosystem vitality
- Stakeholder engagement
- Adaptive management
- Predictability
- Cost savings

MOOM Addresses Many of the Identified CVFPP Flood Management Policy Issues

Land Use and Floodplain Management



Residual Risk Management



Hydraulic/ Ecosystem Baseline and Program Phasing



Operations and Maintenance of the Flood System



Multi-Benefit Projects



Governance and Institutional Support



Coordination with Federal Agencies



Finance



Next Steps

- Further evaluate feasibility of a MOOM Approach to Flood Management in the Central Valley in collaboration with key stakeholders
 - Develop framework concepts for MOOM in the SPFC
 - Examine at “pilot project” scale, likely in conjunction with planned capital investments (i.e., Lower Elkhorn Setback Levee Project in the Yolo Bypass)