



# A New Era in Water Management

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California Department of Water Resources



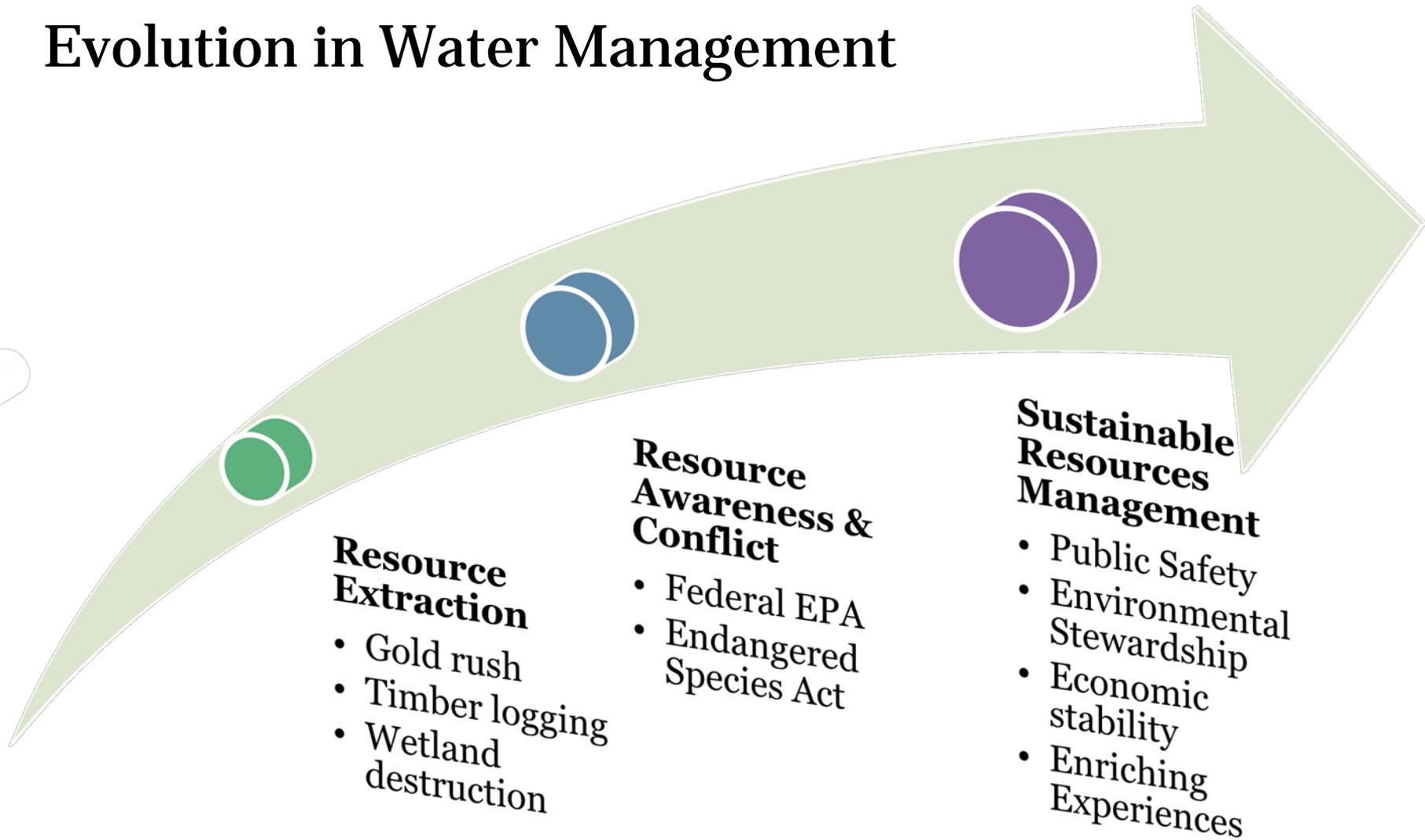
# Overview

- Eras in water management
- Today's Challenges
- Gathering of leaders
- California Water Action Plan
- Flood management setting the stage
- Yolo Bypass implementation efforts





# Evolution in Water Management



# A Myriad of Challenges



Major system deficiencies put public safety, financial stability and economic well being of the State at risk of flooding.



California's Bay-Delta ecosystem is declining with many fish populations at record lows.



Water supplies from the Delta are less reliable. Aging infrastructure and growing population put more pressure on water systems.



Multi-year drought has further stressed water supplies for all purposes. Reservoirs are low and groundwater levels are declining.



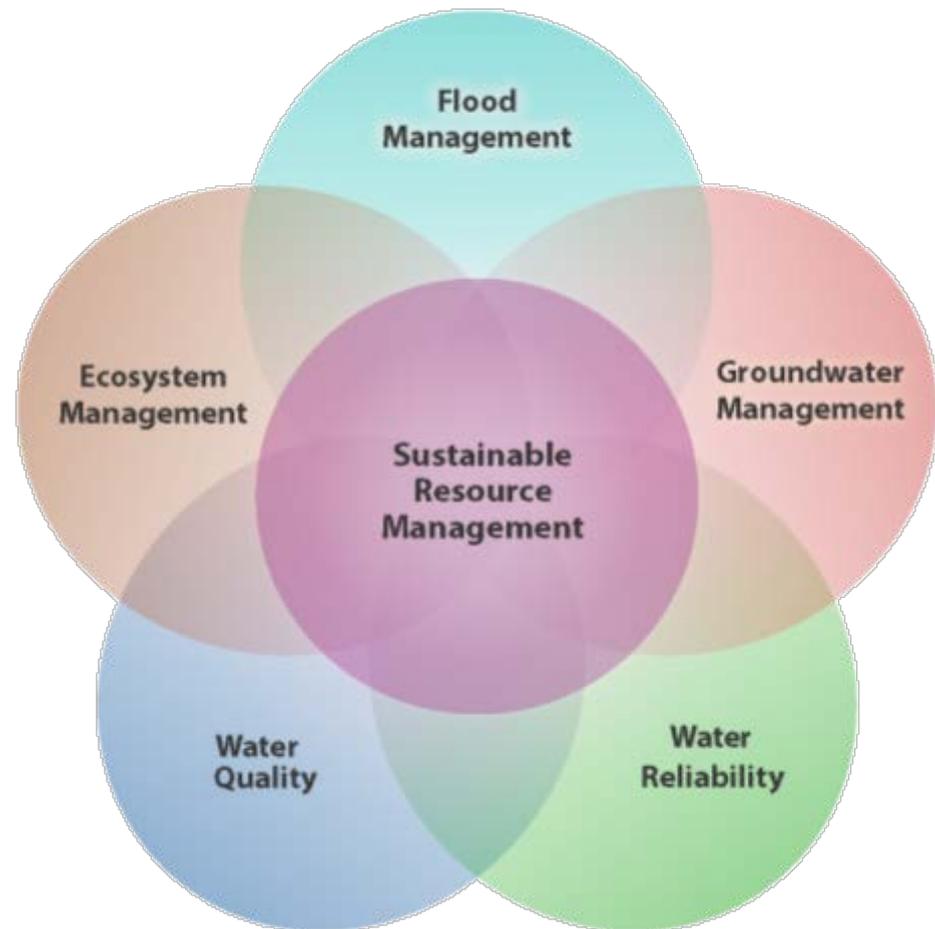
Climate change impacts, including less snowpack, higher flood peaks, and sea level rise, create new uncertainties.



# **Water Summit 360: A Gathering of Leaders**

## Key Takeaway

**“The old way  
of doing  
business is no  
longer viable”**



# Desired Outcomes

## **Sustainable statewide water management**

- Priorities for infrastructure investments
- Reliable funding
- Improved program delivery





# California Water Action Plan

# What is it?

Roadmap towards sustainable water management through a suite of actions

*“The **Water Action Plan** is a commitment to...  
...an **institutional evolution** from business as-usual to truly integrated resource management*



Released: Jan. 2014



# Organization

## 2014 & 2016 California Water Action Plan Objectives

- I. Conservation as a California Way of Life
- II. Increase Local and Regional Self-Reliance and Integrated Water Management Across All Levels of Government
- III. Achieve Co-Equal Goals for the Delta
- IV. Protect and Restore Important Ecosystems
- V. Manage and Prepare for Dry Periods
- VI. Expand Water Storage Capacity and Improve Groundwater Management
- VII. Provide Safe Drinking Water for All Communities
- VIII. Improve Flood Protection
- IX. Increase Operational and Regulatory Efficiency
- X. Identify Sustainable and Integrated Financing Opportunities



Planning for priorities & outcomes



# Flood management setting the stage

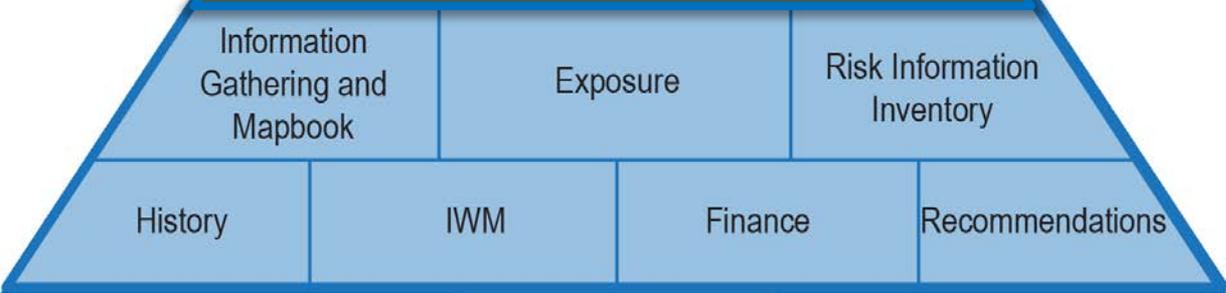
# California Flood Future Report



**Highlights**

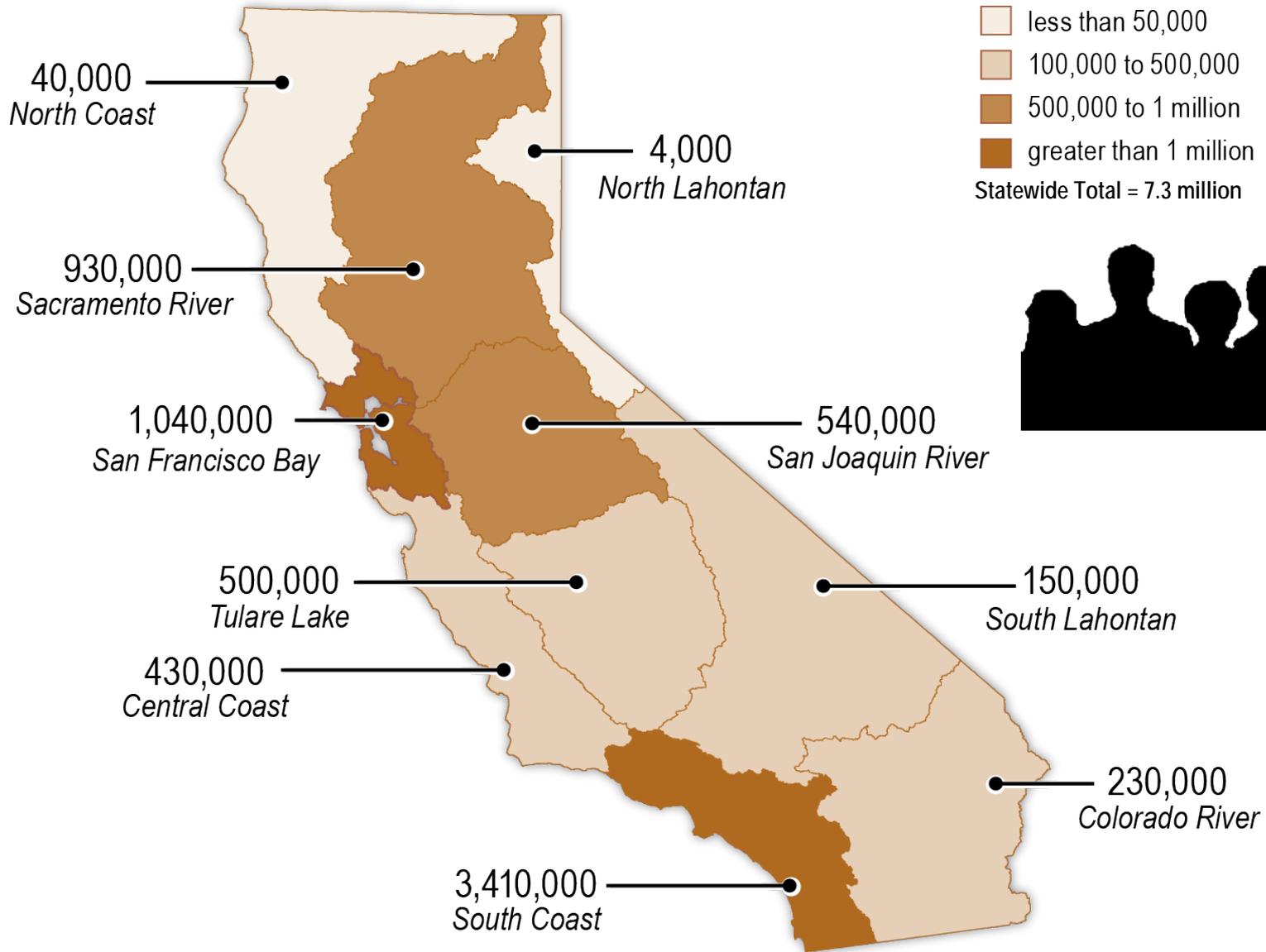
**Flood Future Report**

1. Understanding the statewide flood problem
2. Recommendations for managing flood risk
3. Guide policy and financial decisions



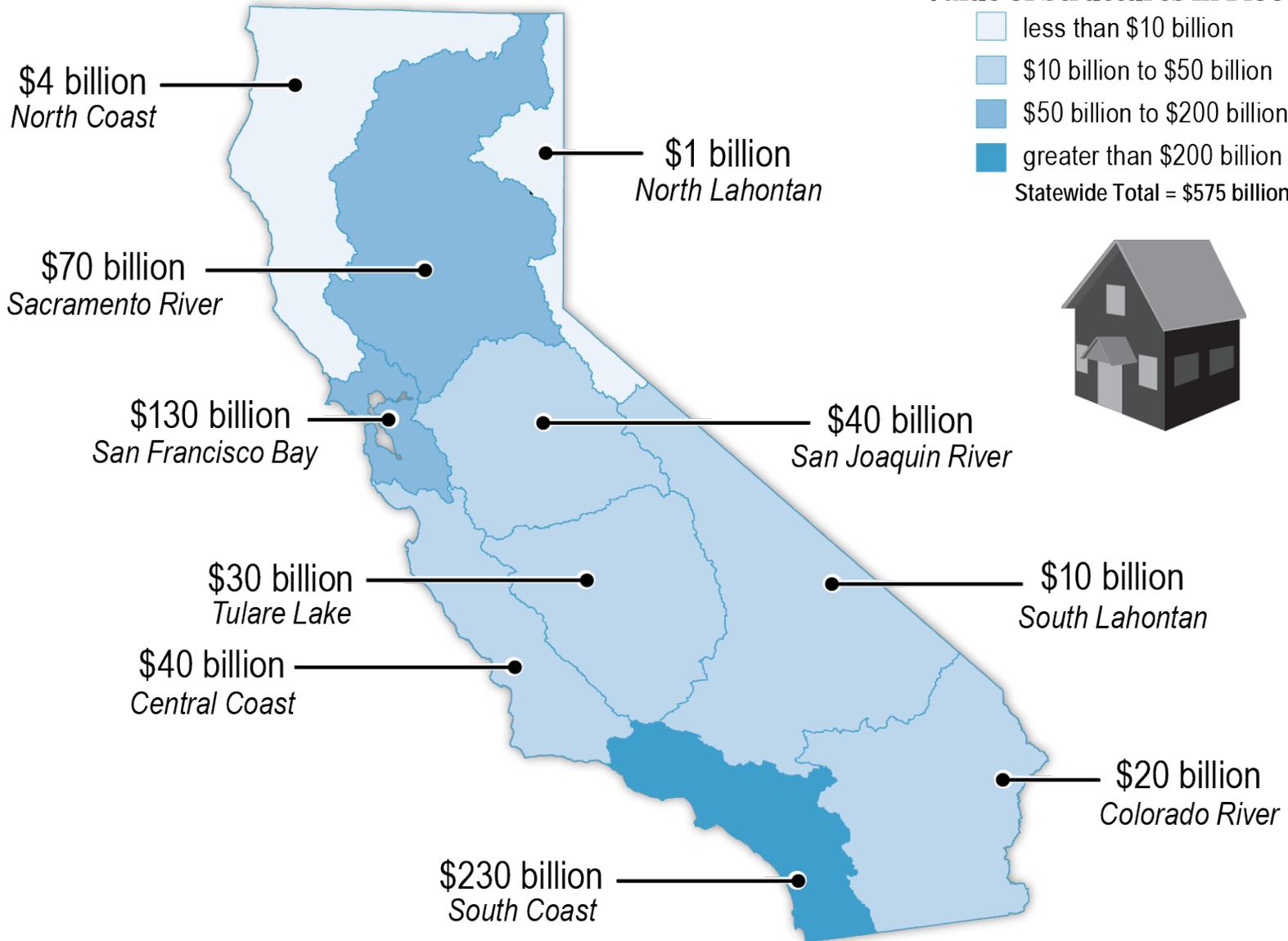
### Number of People in Floodplain

-  less than 50,000
  -  100,000 to 500,000
  -  500,000 to 1 million
  -  greater than 1 million
- Statewide Total = 7.3 million



### Value of Structures in Floodplain

-  less than \$10 billion
  -  \$10 billion to \$50 billion
  -  \$50 billion to \$200 billion
  -  greater than \$200 billion
- Statewide Total = \$575 billion





# 142 Local Agencies Speak Out

- Inadequate data
- Limited understanding by Public and Policymakers
- Emergency management coordination
- Inconsistent land use planning
  - Fragmented flood management responsibility
  - Conflicting permit requirements
  - Unstable funding



US Army Corps of Engineers ®



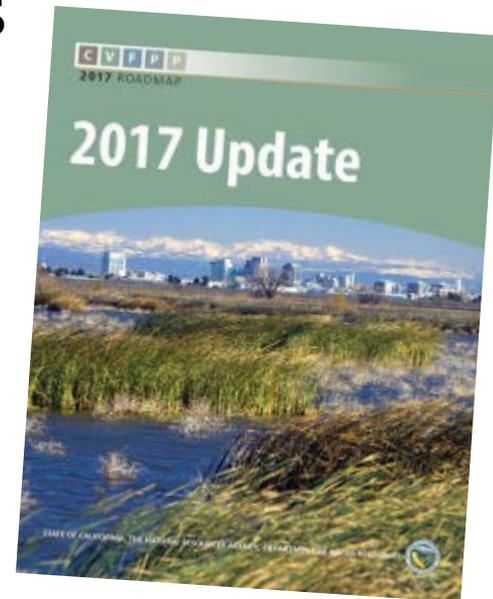
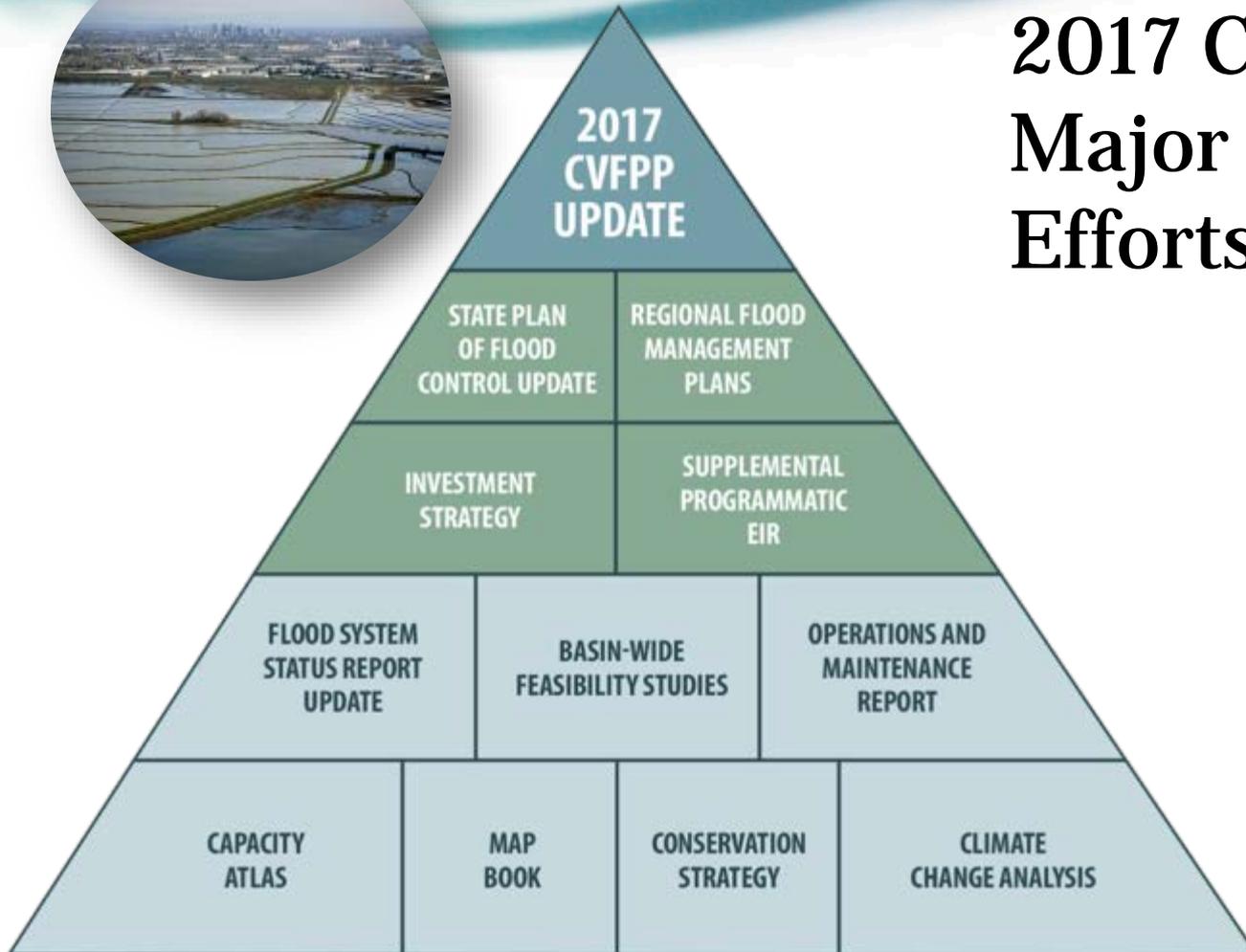


# Central Valley Flood Protection Plan



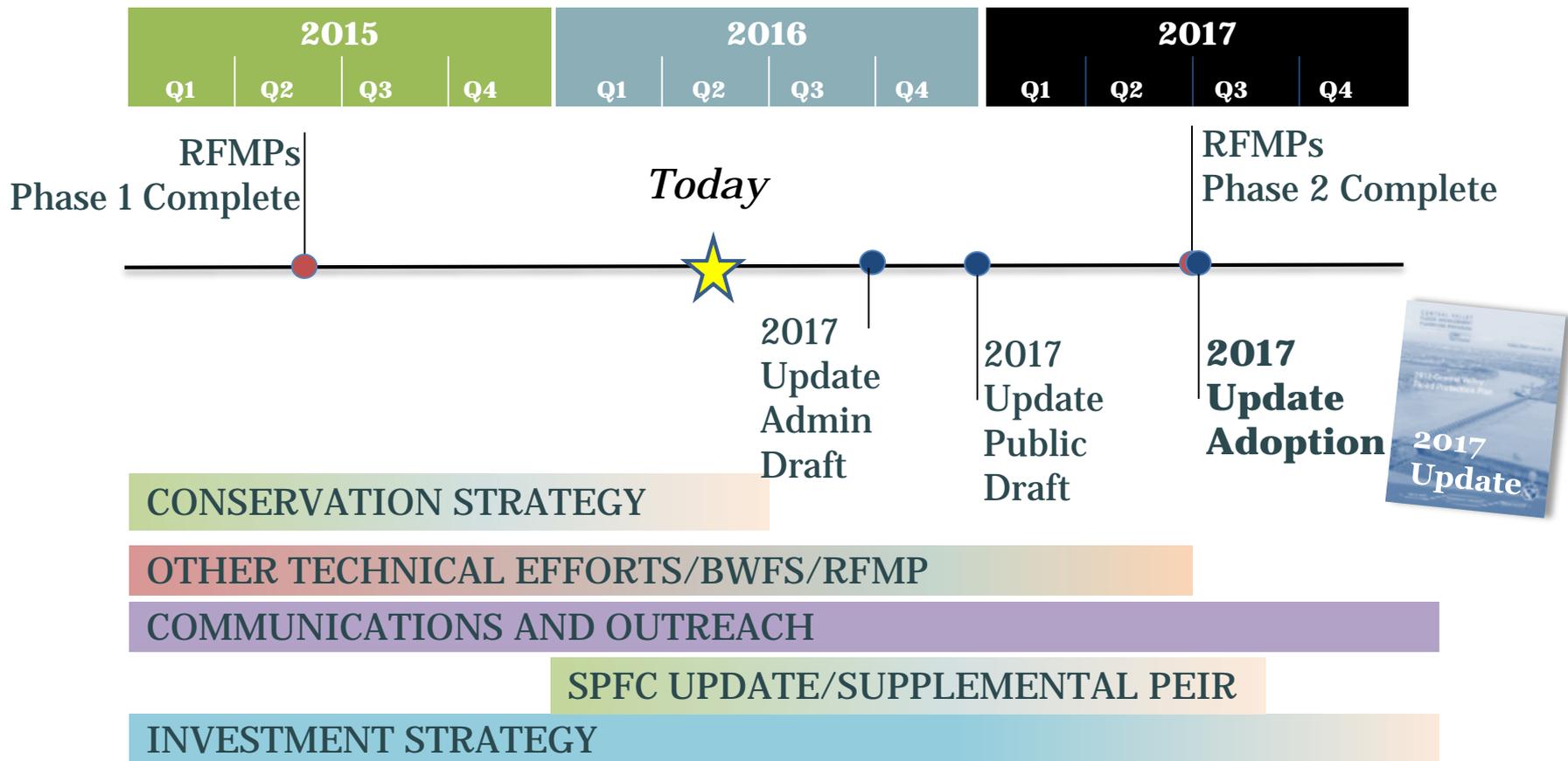


# 2017 CVFPP Update Major Supporting Efforts





# Where are we in the CVFPP Process?

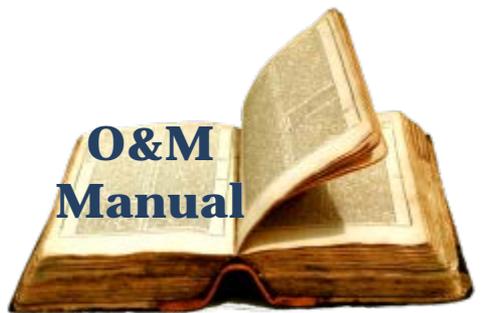


# Today's O&M landscape is complex, costly

1950s

VS

2016



**O&M Manual**  
Maintain Channel Capacity



Vegetation

Land Use

**OSHA O&M Manual**

PL84-99 Labor

Maintain Channel Capacity

**CESA PERMIT REQUIRED**

Permitting



# Operations and Maintenance Repair Rehabilitation & Replacement (OMRR&R)

- Long-Term OMRR&R Workgroup started in late 2013
- Charged with describing the “true costs” of OMRR&R in the Central Valley
- Members from:
  - Central Valley Flood Planning Office
  - Flood Maintenance Office
  - Hydrology and Flood Operations Office
  - FloodSAFE Environmental Stewardship and Statewide Resources Office (FESSRO)
  - Statewide Infrastructure Investigations Branch
  - Consultants

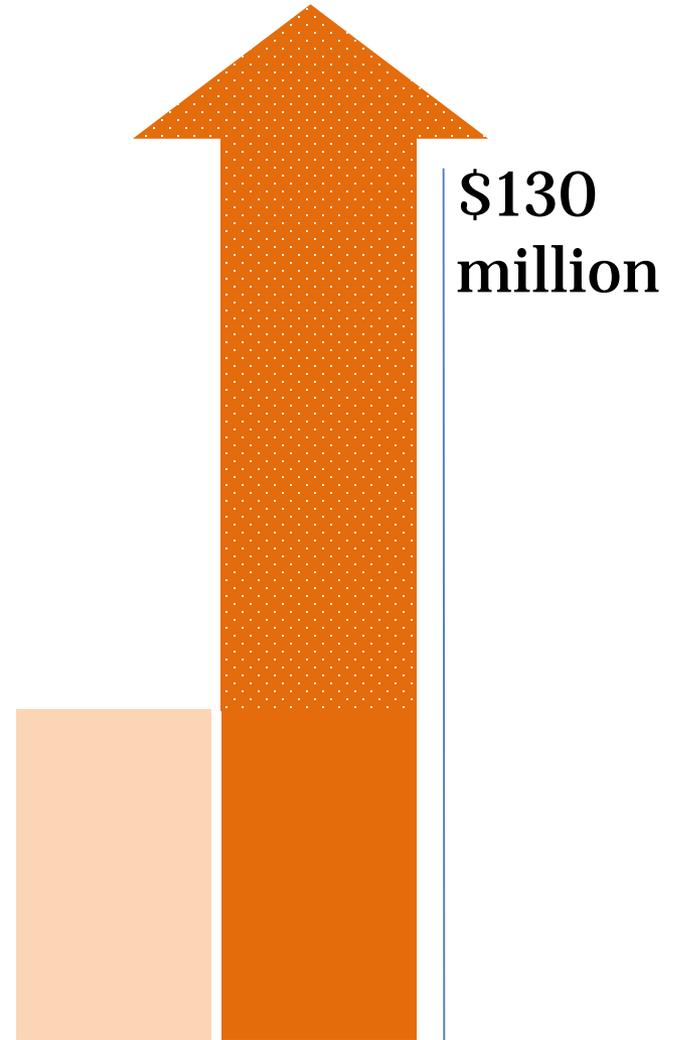


# Substantial Annual Shortfall for OMRR&R

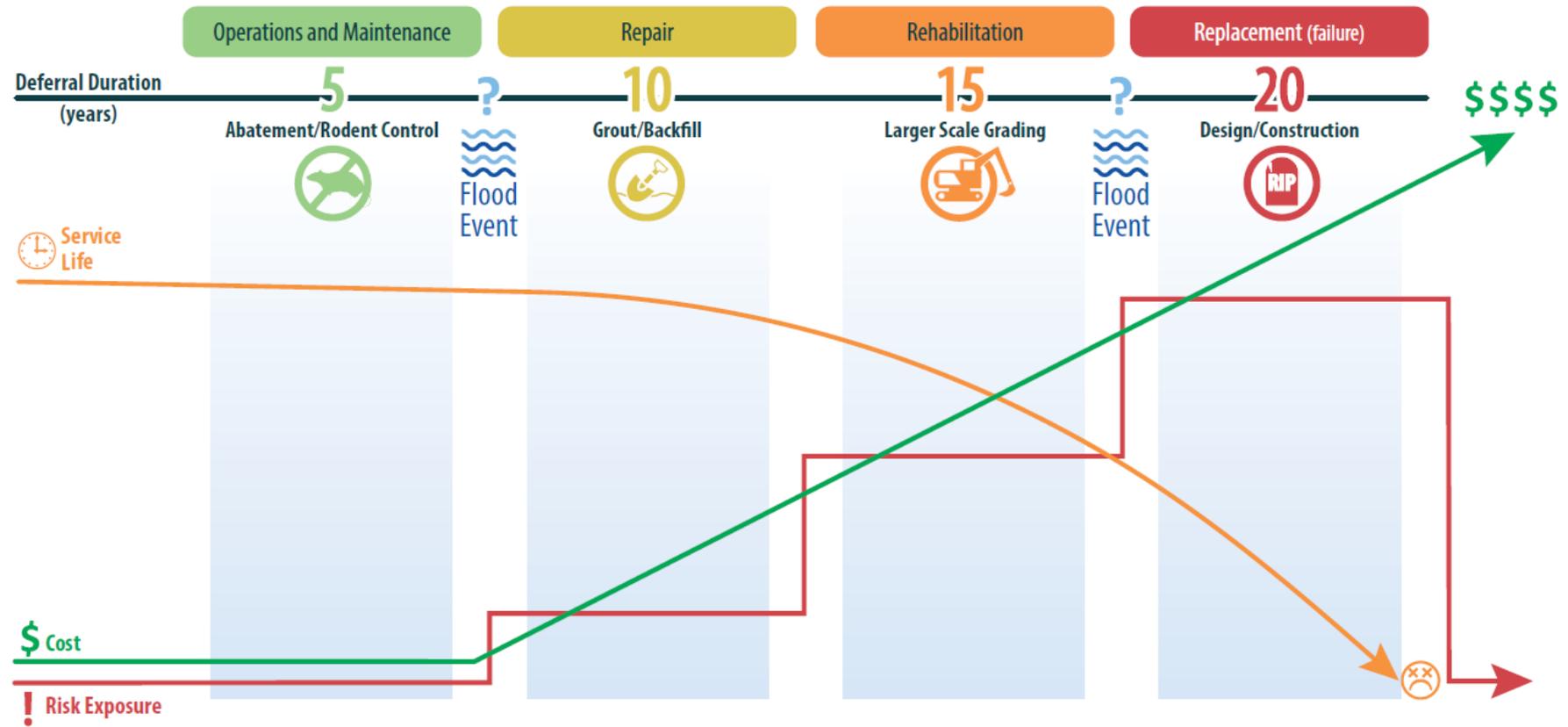
- \$30million AB156 reported costs for State Plan of Flood Control O&M
- Annual cost of necessary OMRR&R more than 4X this amount

 **REPORTED**  
 **NEEDED**

**\$30  
million**



# Deferred Maintenance





# CVFPP Incorporating Sustainability



## CVFPP Contribution

**Action 2:** CVFPP identified multi-benefit portfolios (Chapter 3) of investments that include IWM actions.

**Action 4:** CVFPP Conservation Strategy identifies measurable ecosystem restoration objectives, and CFPO investment portfolios include ecosystem improvements.

**Action 6:** Sacramento and San Joaquin BWFS identify water flood storage related improvements (Chapter 3) as well as management actions to improve groundwater recharge.

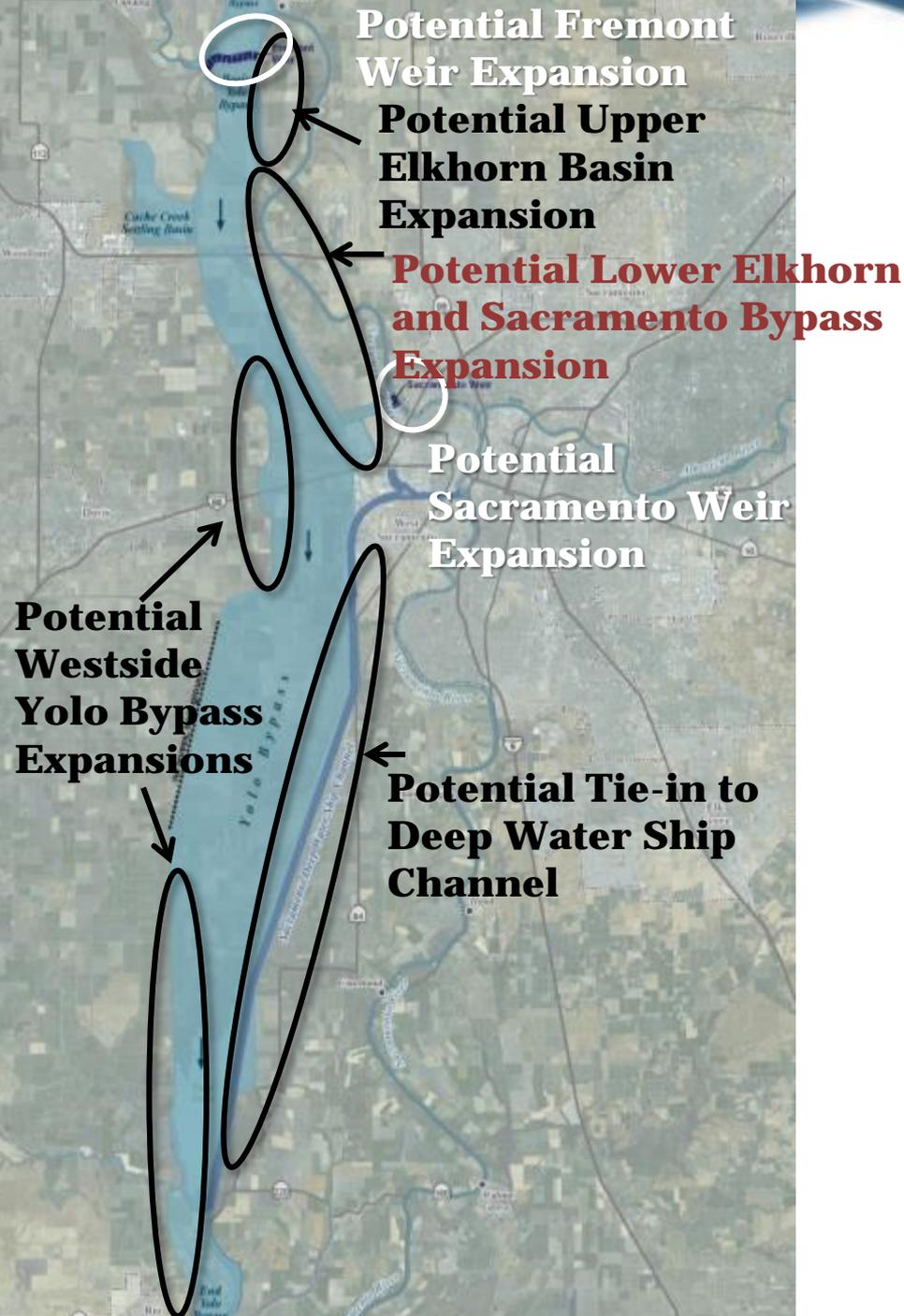
**Action 8:** Increasing flood protection related to the primary goal of CVFPP.

**Action 9:** The CVFPP Investment Strategy addresses regulatory issues and efficiency; the OMRR&R report addresses flood operations and regulatory needs and efficiencies.

**Action 10:** The CVFPP Investment Strategy (Chapter 4 and 5) addresses sustainable financing needs and strategies.



# Yolo Bypass Implementation Efforts



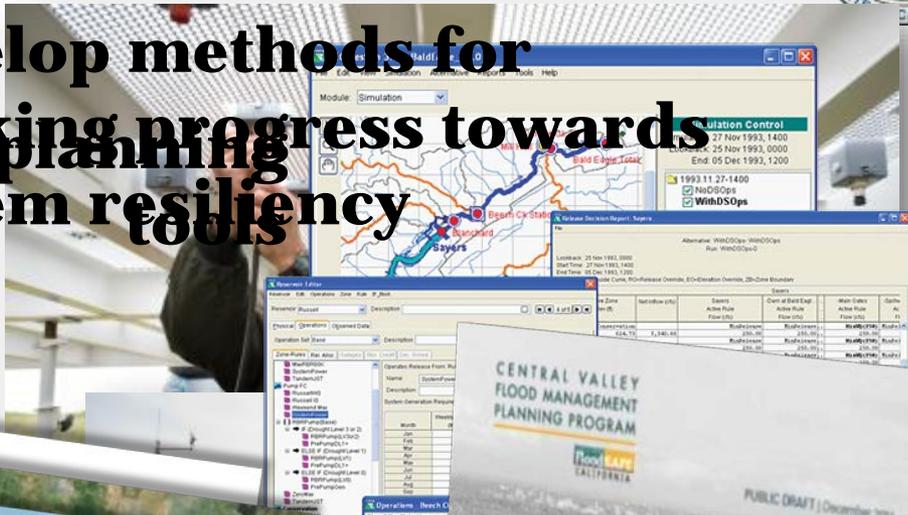
# Recommendations - Sacramento BWFS

- Increase bypass capacity
- Restore habitat
- Phase 1 considering Sacramento Bypass and Lower Elkhorn expansion



# Next Steps

# Develop methods for tracking progress towards Improve planning system resiliency Investment tools science



California Water Action Plan  
Implementation Report  
2015-2018  
Final Draft January 22, 2015

reliability  
restoration  
resiliency

regulator



## RFMP





Questions?