CVFPP Conservation Strategy:
Integrating Restoration of Ecosystem Functions into Flood Management Planning

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Outline

• Background of the Central Valley Flood Protection Plan (CVFPP) Conservation Strategy
• Context for incorporating conservation into flood planning
• Example of integrated flood project yielding multiple benefits
• Use of Conservation Strategy approaches and tools toward meeting CVFPP goals
CVFPP Primary Goal

Improve Flood Risk Management

CVFPP Supporting Goals

- Improve Operations and Maintenance
  - Improve dynamic hydrologic (flow) and geomorphic processes

- Promote Ecosystem Functions
  - Increase and improve habitat quantity, diversity, quality, and connectivity

- Improve Institutional Support
  - Contribute to the recovery and sustainability of native species

- Promote Multi-Benefit Projects
  - Reduce stressors that negatively affect at-risk species

CVFPP 2017 ROADMAP
2008 Central Valley Flood Protection Act

- Promote natural dynamic hydrologic and geomorphic processes
- Increase and improve the quantity, diversity, and connectivity of riparian, wetland, floodplain, and shaded riverine aquatic habitats
- Promote the recovery and stability of native species populations and overall biotic community diversity
- Reduce stressors
CVFPP Systemwide Planning Area and Conservation Planning Areas
95% of historical wetland and riparian vegetation no longer exists

90% of salmonid rearing habitat no longer exists

25 associated species threatened or endangered
Conservation Strategy Approach: Reconnection of Floodplains

- Higher Risk
- Low Quality Habitat
- Deferred Maintenance
- Higher Risk

- Lower Risk
- High Societal Value
- High Quality Habitat
- Sustainable Maintenance
- Lower Risk

- High Stage
- High Pressure
- High Velocity/Scour

- Low Stage, Low Pressure
- High Capacity
Conservation Strategy Approach: Innovative Tools

Figure 5-1. Landscape Units of the Conservation Planning Areas
• 17 target species
• Associated with Central Valley river and floodplain ecosystems
• Greatest recovery needs
• Appendix G of the Conservation Strategy
Southport Setback Levee
Southport Setback Levee

**How is flood management/public safety improved?**
- Provide 200-year level of protection for about 50,000 residents in West Sacramento
- Levee setback expected to lower stage in Sacramento River

**How is O&M improved?**
- New engineered levee will replace existing levee on unstable soils
- Is expected to reduce frequent erosion, seepage, and other structural issues, and is shorter in length
- Comprehensive plan for federal compliance

**How is habitat/ecosystem improved?**
- Setback levee will create up to 150 acres of new mixed floodplain and riparian habitat
- Provides important habitat for threatened and endangered species in a highly urbanized area where little to no other habitat exists.

**How are enriching experiences provided?**
- Increase opportunity for recreation on nearby lands (boating, fishing, new parks and trails)
- Provide education and public awareness through interpretive displays in new recreational areas
### Conservation Strategy Approach:

**Multi-Objective, Multi-Benefit**

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<thead>
<tr>
<th>CVFPP Goals</th>
<th>Conservation Strategy Approaches</th>
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<tr>
<td>Improve flood risk management</td>
<td>Promotes increased <strong>system flexibility and reliability</strong> by supporting structural improvements compatible with floodplain ecosystems.</td>
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<tr>
<td>Promote ecosystem functions</td>
<td>Provides <strong>ecological goals</strong> that promote ecosystem processes, habitats, species, and reduction of stressors.</td>
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<td>Improve O&amp;M</td>
<td><strong>Reduces conflicts</strong> with habitat and geomorphic processes, and proposes more reliable and less costly permitting.</td>
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<td>Improve institutional support</td>
<td>Promotes permitting efficiencies, and <strong>may attract additional funding sources</strong> for multi-benefit projects and support from public and resource agencies.</td>
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<td>Promote multi-benefit projects</td>
<td>Supports multi-benefit projects by <strong>integrating conservation into flood system</strong> improvements, rather than as separate conservation actions.</td>
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http://www.water.ca.gov/conservationstrategy/

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