Floodplain Management Association Luncheon

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California’s Flood Future Report
Recommendations for Managing the State’s Flood Risk

For more information about California’s Flood Future please visit:
www.water.ca.gov/SFMP
DWR is using an Integrated Water Management (IWM) approach to implement FloodSAFE.

**TOOLS**
- Technical data
- Modeling information

**PLANS**
- Integrated approach
- Incorporate multiple benefit projects

**ACTIONS**
- Manage and implement projects

**RESULTS**
- Provide value to:
  - Residents
  - Environment
  - Economy
State Systemwide Investment Approach

- Regional Improvements
- System Improvements
- Residual Risk Management

Environmental Conservation
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  - Modeling information

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The Flood System Repair Project (FSRP) is a near-term priority action of the Central Valley Flood Protection Plan (CVFPP) for the Flood System Operations and Maintenance Program/Rural Agriculture Areas.
The Flood System Repair Project was developed under the CVFPP.

The FSRP aids Local Maintaining Agencies (LMAs) in reducing flood risks primarily in non-urban areas.

$150 million of Prop. 1E funds available as State cost-share.

2012 Central Valley Flood Protection Plan
FSRP Goals and Objectives

FSRP will cost share critical repairs with LMAs to:

- Repair documented critical problems including erosion, boils, slumps, hydraulic control structures, and channels
- Repair deteriorated levee patrol roads to ensure effective flood fighting capability
- Conduct proactive repair of minor levee problems (i.e. erosion sites shorter than 50 feet)
FSRP Schedule

First Cycle Repairs
- Site Evaluation
- Repair Alts./Project Agreements
- Design / Permitting
- Construction
- Spring Inspection

Year 1
- First Cycle Repairs

Year 2
- Spring Inspection
- Subsequent 2-yr Cycles
- Site Eval.
- Repair Alts./Project Agreements
- Design / Permitting
- Construction

Year 3 and onward
- Site Eval.
- Repair Alts./Project Agreements
- Design / Permits
- Construction
FSRP Site Selection

Started with ~7,000 Documented Sites
- Visited each site
- Determined severity via a standardized assessment protocol

Narrowed it Down to ~3,000 Sites
- Removed duplicates
- Removed remedied sites
- Removed routine maintenance sites

Sites Grouped Into Categories
- Erosion
- Seepage (through and underseepage)
- Slope stability
Repairs prioritized to achieve maximum flood risk reduction

- Rank hydraulic basins as Tier 1, 2, or 3 based on assets exposed to flood risk (including crops) and potential hazard of levee failure
- Rate sites (Critical, Serious, or Future Re-evaluation) using past performance criteria
FSRP Eligible Projects

FSRP Projects May Include:

- Erosion Damage Repair
- Levee Repair
- Crest/Access Road Repairs
- Weir, Flood Relief Structure, and Control Structure Repairs
- Pumping Plant Modifications to Restore Design Capacity
- Channel Capacity Restoration and Sedimentation Control
- Habitat, Open-space, Recreation Work as a Component of the Project
FSRP guidelines allow for flexibility in design criteria through use of guiding principals

- Focus on addressing critical problems
- May be designed to achieve incremental flood risk reduction
- Consider future habitat restoration projects in the area
FSRP Cost-Share Basis

DWR Flood Projects with Cost-Share Formula Include Incentives for:

- ✓ Habitat
- ✓ Open space
- ✓ Recreation
- ✓ State Facilities

FSRP Provides Additional Cost-Share Incentives for:

- ✓ Operations and Maintenance
- ✓ Reporting Performance
- ✓ Emergency Response Preparedness
- ✓ Participation in Multi-Benefit Projects
The Small Erosion Repair Program (SERP) provides a streamlined regulatory review and authorization process that facilitates implementation of small erosion repairs within the Sacramento River Flood Control Project area.
5-Year Pilot Program

Initial project area is approximately 300 miles of DWR maintained levees

If successful the SERP coverage area will expand to include sites repaired by other LMAs throughout the Sacramento-San Joaquin Drainage District
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<th>Current Levee Maintenance Process</th>
<th>Small Erosion Repair Program (SERP) Process</th>
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<td>☑ Project-by project Basis</td>
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<td>☑ Lengthy Permit Process</td>
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In order to be identified as a SERP project, an erosion site must fit into one of the following categories:

**Tier I**
- ≤ 0.1 acres
- ≤ 264 linear ft.
- ≥ 500 ft. between sites

**Tier II**
- ≤ 0.5 acres
- ≤ 1,000 linear ft.
Standardized Process

✓ Small Erosion Sites (size/type)
✓ Field Assessment/Notification
✓ Review Process
✓ Guidance Design Templates
7 SERP design templates:

1. Bank fill rock slope with live pole planting
2. Willow wattle with rock toe
3. Branch layering
4. Rock toe with live pole planting
5. Soil and rock fill at the base of a fallen tree (with rootwad revetment option)
6. Bank fill rock slope with native grass planting
7. Bank fill rock slope with emergent vegetation planting
1. Typical Cross-Section
2. Plan View
4. Applicability/Limitations
5. Planting Zone
6. Rock Size
7. Construction Notes