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CALIFORNIA DEPARTMENT OF
WATER RESOURCES

Small Erosion Repair Program (SERP)

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Department of Water Resources

2012 Environmental Scientist Workshop

- Overview
- SERP Program Elements
- Future Direction



Willow Slough Bypass

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Small Erosion Repair Program

Power of Water



Twitchell Island Levee Road along the San Joaquin River



Non-project levee: Black Rascal Cr.

State and Federal Laws and Regulations

- Developed to reduce environmental impacts of human activities

Such as:

- Endangered Species
- Wetlands
- Water quality



Willow Slough Bypass

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Small Erosion Repair Program

Interagency Flood Management Collaborative Program



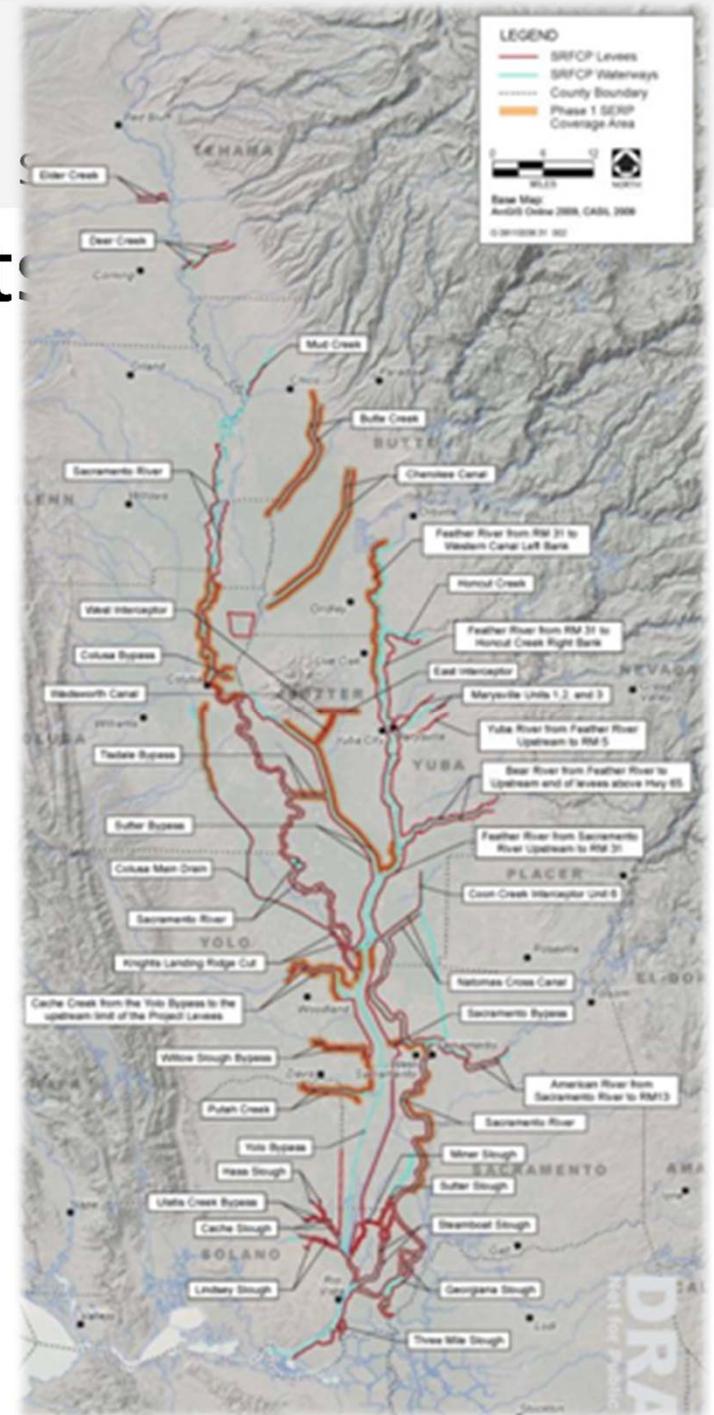
SERP Goals

- Prevent small erosion from becoming large erosion
- Prevent escalating loss of existing vegetation
- Foster consistent regulatory compliance for similar repairs
- Obtain measurable data to evaluate success



SERP Elements

- 5-Year Pilot Program
- System-wide Approach
- DWR-Maintained Levees



SERP Elements

- 15 Erosion Repairs Annually
- Maximum Size of Erosion:
 - Tier I: 0.1 acre: 264'
 - Tier II: 0.5 acre: 1,000'



THE SERP MANUAL

Standardized :

- Field Assessment/Notification
- Review Process
- Guidance Design Templates
- Opt Out at Any Time



Annual Review Process

DWR Maintenance Yard staff identifies erosion sites: June 1

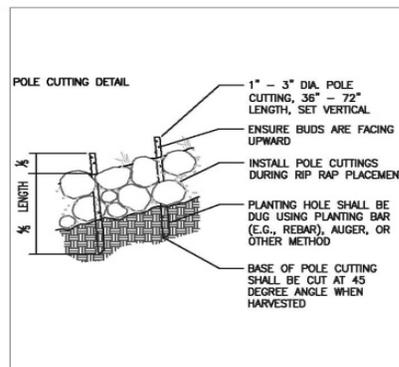
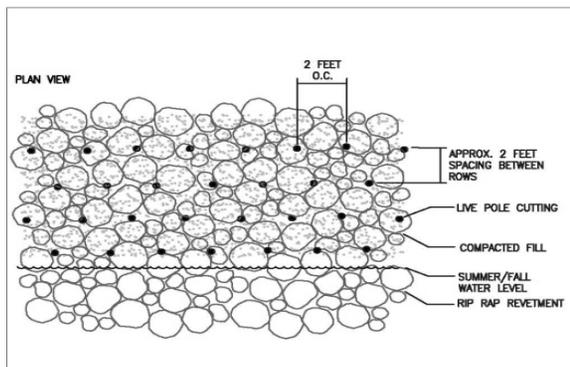
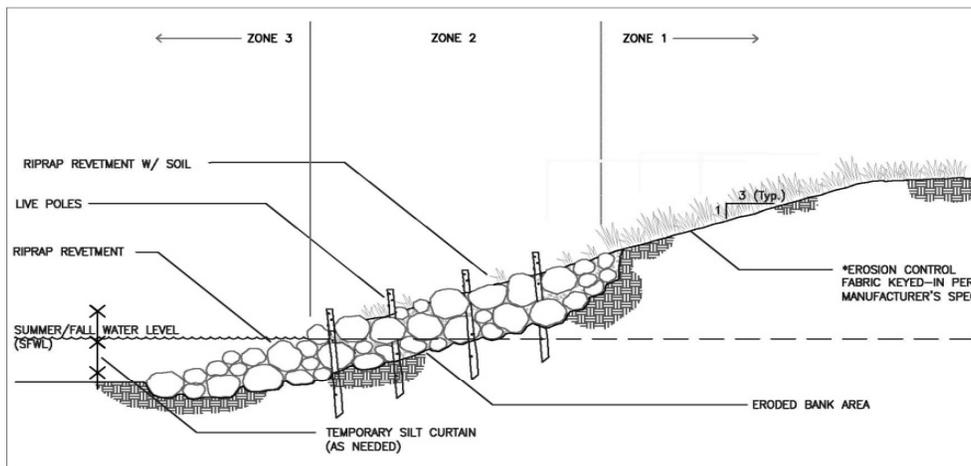
Annual Notification Package to agencies (including Board staff): July 1

Agency review: 30 days to Reject or Accept projects

Procurement and construction complete: October 15

Design Templates

TEMPLATE FOR GUIDANCE ONLY – NOT PROJECT SPECIFIC



BANK FILL ROCK SLOPE WITH LIVE POLE PLANTING

Description and Application:
Bank fill rock slope with live pole planting is suitable for situations where significant bank erosion has occurred. Rock riprap and soil filled rock is placed in the eroded area and live pole cuttings are installed in the riprap. This technique creates a stable, vegetated bank toe and protected middle and upper bank, and is suitable for banks on inner and outer bends.

Maximum Slope: 1:1
Maximum Velocity: Project specific – determined by project engineer specification for rock size.

Limitations:
Live pole plantings may not be suitable for setback levees and bypass levees that are dry most of the year unless irrigated.

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Conceptual to Implementation

- 5-year monitoring
- Success Criteria



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