Overview

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Discussion Overview

- Background and recap
- Breakdown of $130M annual estimate
  - Breakdown of State’s responsibilities and share
  - Breakdown of local responsibilities and share
- Moving forward
Sacramento and San Joaquin Basins

Levees
- Over 1,600 miles of federal project levees
- Both urban and non-urban
- Condition from very bad to newly constructed

Channels
- Over 1,200 miles (148,000 acres) of designated floodways
- Over 1,000 miles of project channels

Structures
- 53 other major flood protection works (weirs, relief structures, pumping plants, gates, etc.)
Cost Categories included in $130M Estimate

- Urban Levee O&M
- Non-Urban Levee O&M
- Channel Sediment Removal
- Channel Vegetation and Debris Removal
- Minor Structures O&M
- Major Structures O&M
- Repair, Rehabilitation and Replacement (limited)
The Challenge

How things were...

- Comply with O&M Manual
- Adequate Funding

How things are now...

- Comply with O&M Manual and many other regulations, some that conflict
- No proportional increase in funding
How We Estimated the True Cost

1. Determine all activities (Job Categories)
2. Inventory and create database of all SPFC facilities (Units)

3. Gather all input as to existing expenditures per each activity
4. Gather all input as to estimated true cost of each activity

5. Develop “Range of Cost” for each activity by region
6. Multiply “Estimated Unit Cost” by “Units” for entire SPFC

7. Refine estimate with regional assistance
Findings by the Numbers

$130M  What we *should be* spending annually

$30M  What we *are* spending annually

Other Numbers and Cost Examples

- $40K-$60K... O&M on 1 Mile of Levee
- $10 ........... Removal of 1 Cubic Yard of Sediment
- $25K........... Removal of 1 Acre of *Arundo donax* (estimated 360 acres)
- 2,274 .......... # of Pipes potentially the responsibility of LMA’s
  (out of 5,500 total penetrations based on UCIP data)
- $2K ............. Each Video Pipe Inspection
- $240K ........ Pipe Replacement (average, lower $ for abandon/removal/slip-lined)
Breakdown of Estimate

Existing Expenditures

$30M

Sutter & Sacramento Maintenance Yards
Roughly $9M

- CWC § 8361
- CWC § 12878
- ~300 mi levees
- Sac Channels
- Major SRFCP facilities

82 LMAs
Roughly $21M

- CWC § 8370
- CWC § 12642
- CWC § 12828
- ~1300 mi levees
- Project facilities not explicitly assigned to State

Estimated Expenditures

$130M

State and all 82 LMAs considered, reported by six regions

Sutter & Sacramento Maintenance Yards
Est. increase to $33M (shortfall = roughly $24M)

- General Fund
- Increased MA assessments

82 LMAs
Est. increase to $97M (shortfall = roughly $76M)

- Assessments
- SSJDD
- Subventions

How?
What **is** Included in $130M / Year

- Routine and Non-routine SPFC maintenance for both the State and 82 LMAs
- Permitting Costs
- **RECURRING COSTS** (including *some* (not all) deferred maintenance costs and RR&R costs that will need ongoing funding stream)
  - Urban ULDC compliance
  - Pipe Penetrations
  - Rural RR&R
  - Giant Reed (*Arundo donax*) removal

Closes funding gap so no new deferred maintenance is accrued
What is **NOT** Included in $170M / Year

- One-Time Projects and **Capital investments**
- State Operations
  - $132M to $166M
- Emergency Mgt.
- Reservoir Operations
- Planning
- Routine Maintenance
  - $118M to $144M

- Backlog of **deferred maintenance** other than pipe penetrations and Giant Reed (*Arundo donax*)
- Non-SPFC facilities
- Non-SPFC Delta OMRR&R
- Any federal actions, costs, etc.
Moving Forward

- Utility Crossing Inventory Program (UCIP) Data
- Categories, Definitions, Deferred Maintenance
- Life Cycle Analysis
- Integration into Performance Tracking and System Status Report
- Updated Estimate
- Detailed Analysis of Responsibilities (Current, and what makes sense moving forward)
- Detailed data needed to support CVFPP funding recommendations
“The structures and facilities constructed by the United States for local flood protection shall be continuously maintained in such a manner and operated at such times and for such periods as may be necessary to obtain the maximum benefits.”

Why is Central Valley Maintenance Important?

- Deferred maintenance leads to disaster
- One of the highest levels of flood risk in the country
- Over 1.3 million people at risk in floodplain
- About $80 billion of infrastructure and assets at risk

- Large agricultural industry
- Urban, small community, and rural protection
- Hub of California’s water system (25-million people)
<table>
<thead>
<tr>
<th>Why is Maintenance Difficult?</th>
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<tbody>
<tr>
<td><strong>“Vintage”</strong> system built over many decades</td>
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<td><strong>Higher maintenance costs due to new considerations</strong></td>
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Estimate by Category ($130M Total)

- Urban Levee O&M: $43 million (33%)
- Non-urban Levee O&M: $55 million (42%)
- Channel Sediment Removal: $18 million (14%)
- Channel Vegetation/Debris Removal: $43 million (33%)
- Small Structures O&M: $5 million (4%)
- Large Structures O&M: $1 million (1%)
- RR&R (limited): $1 million (1%)

Total: $130 million