



DWR Maintenance Area Budget FY 2014/15

Presented by:

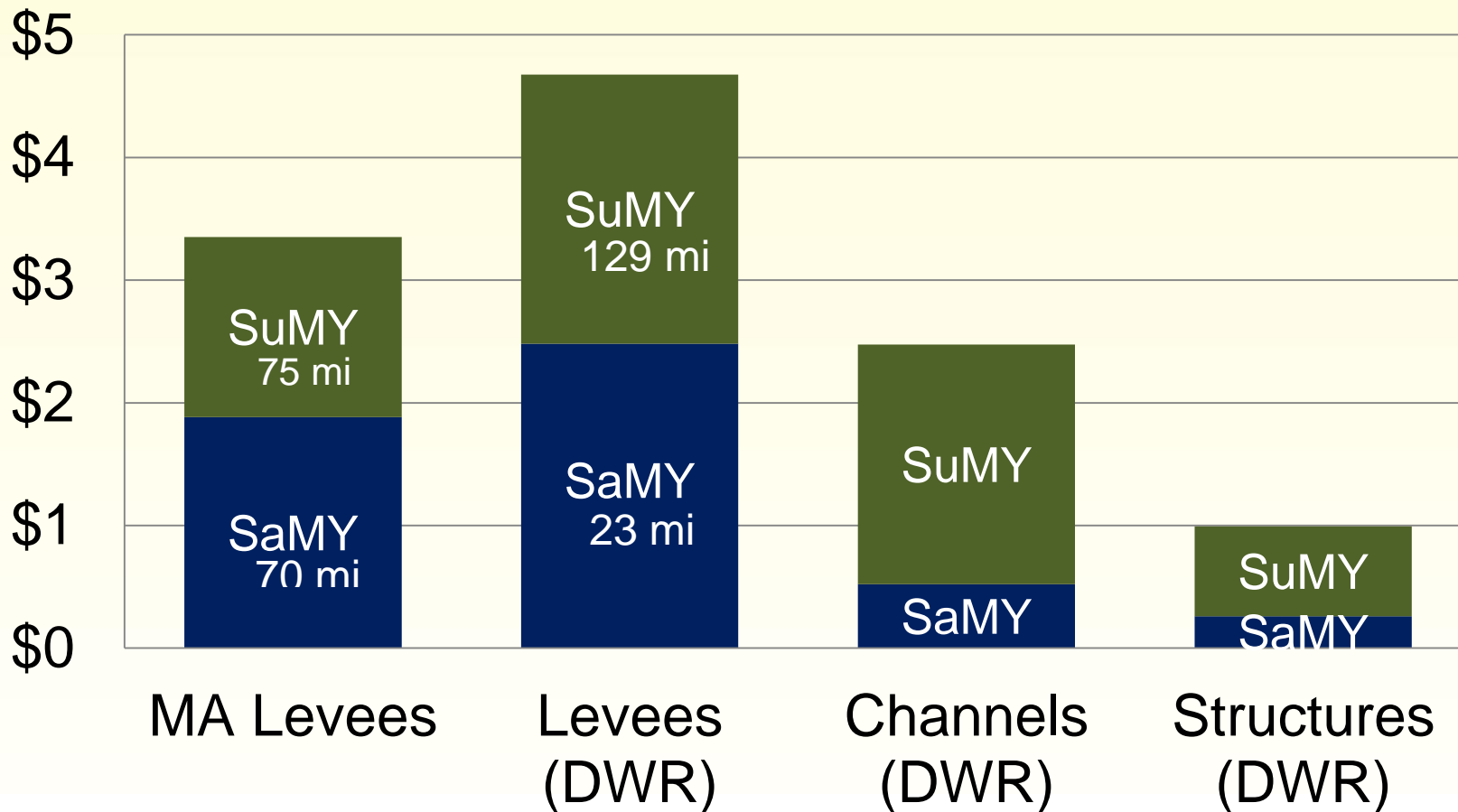
Jon Ericson, Chief, Flood Maintenance Office

Mark List, Chief, Maintenance Support Branch

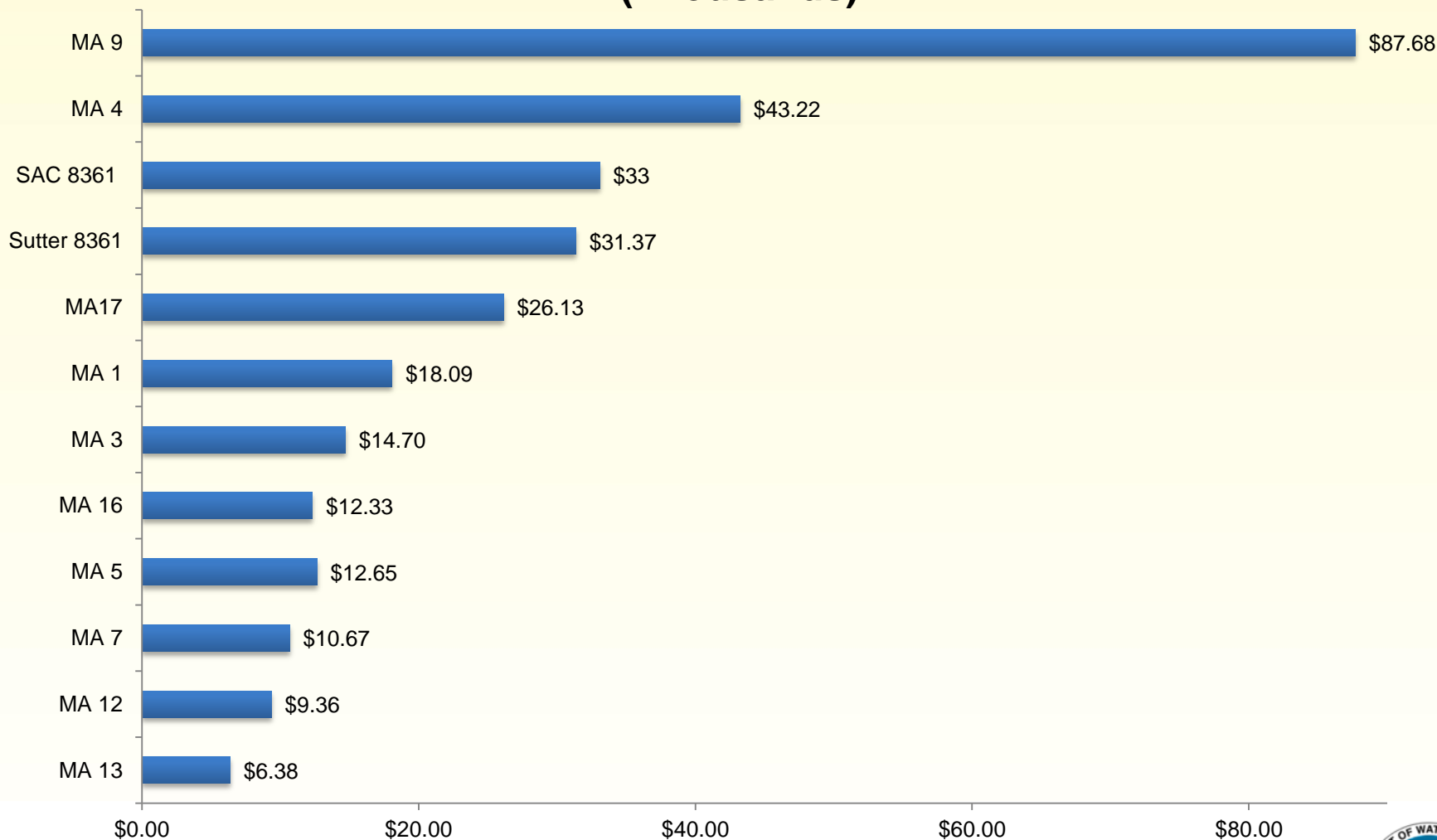
Annual Routine Maintenance Breakdown

(FY14/15 Budget for DWR 8361 and MAs)

Millions



FY 14/15 Budgeted Levee Maintenance Price per Mile (Thousands)

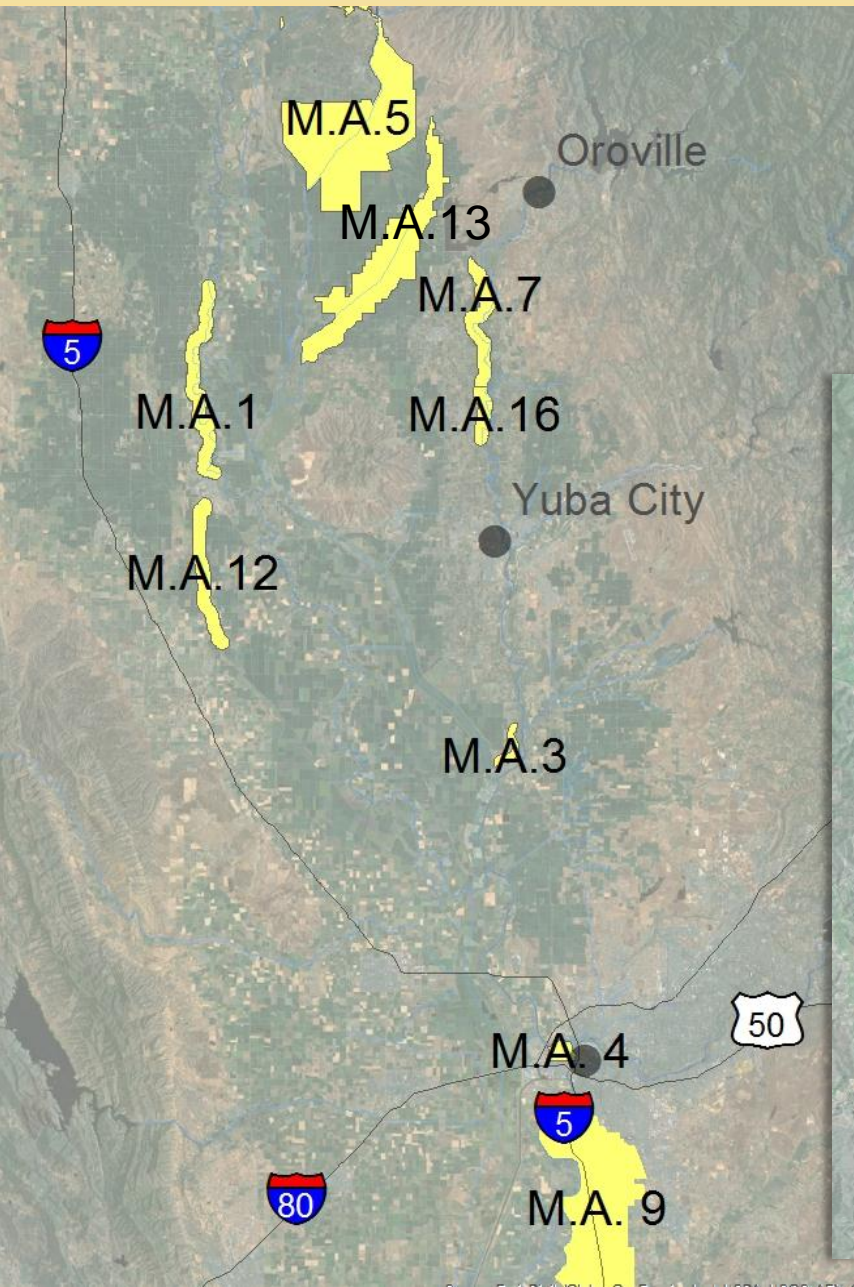


PUBLIC SAFETY

ENVIRONMENTAL STEWARDSHIP

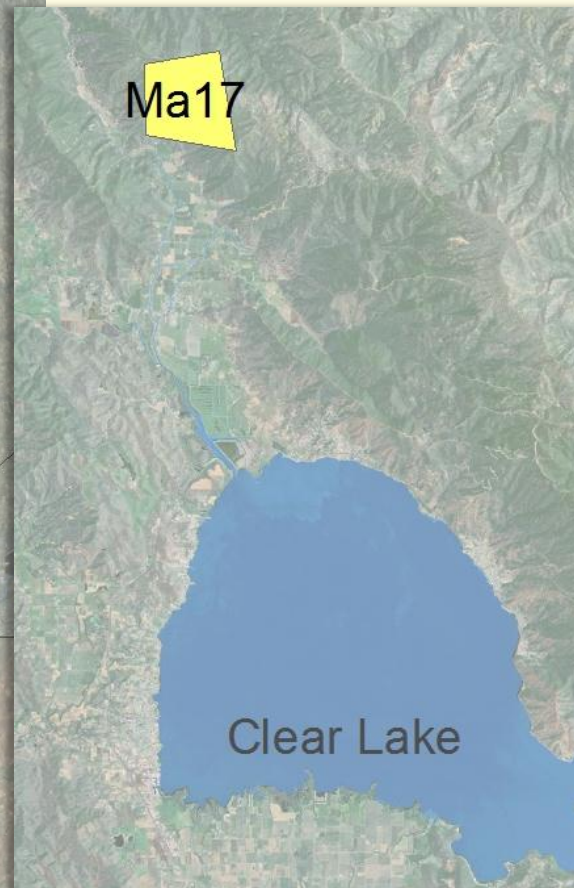
ECONOMIC STABILITY





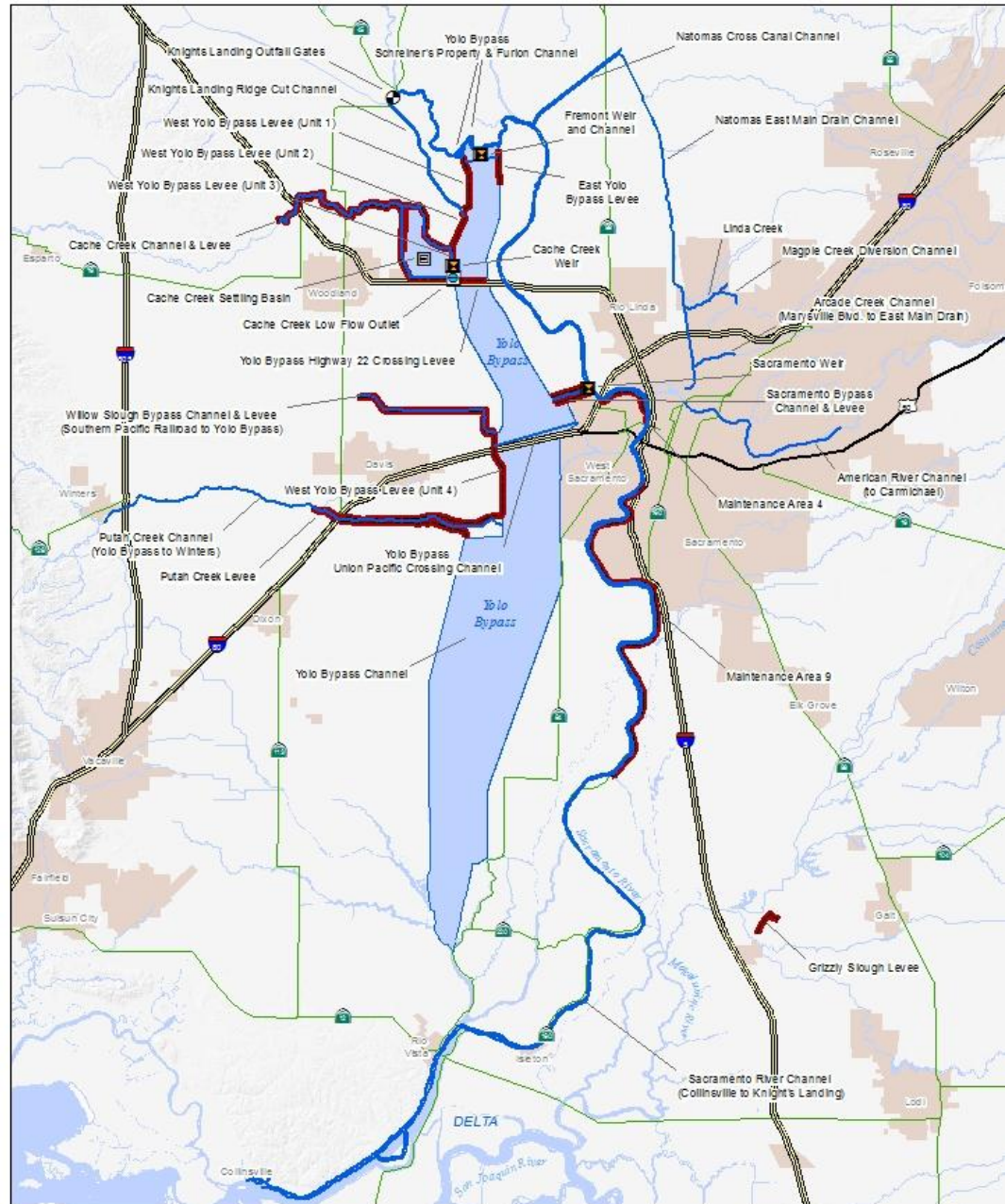
Maintenance Areas

(NOT TO SCALE)



DWR Sacramento Yard Areas of Responsibility

(NOT TO SCALE)



N	Channel	Diversion Structure
Levee	Low Flow Outlet	Outfall Gate
Bridge	Pumping Plant	
Weir		

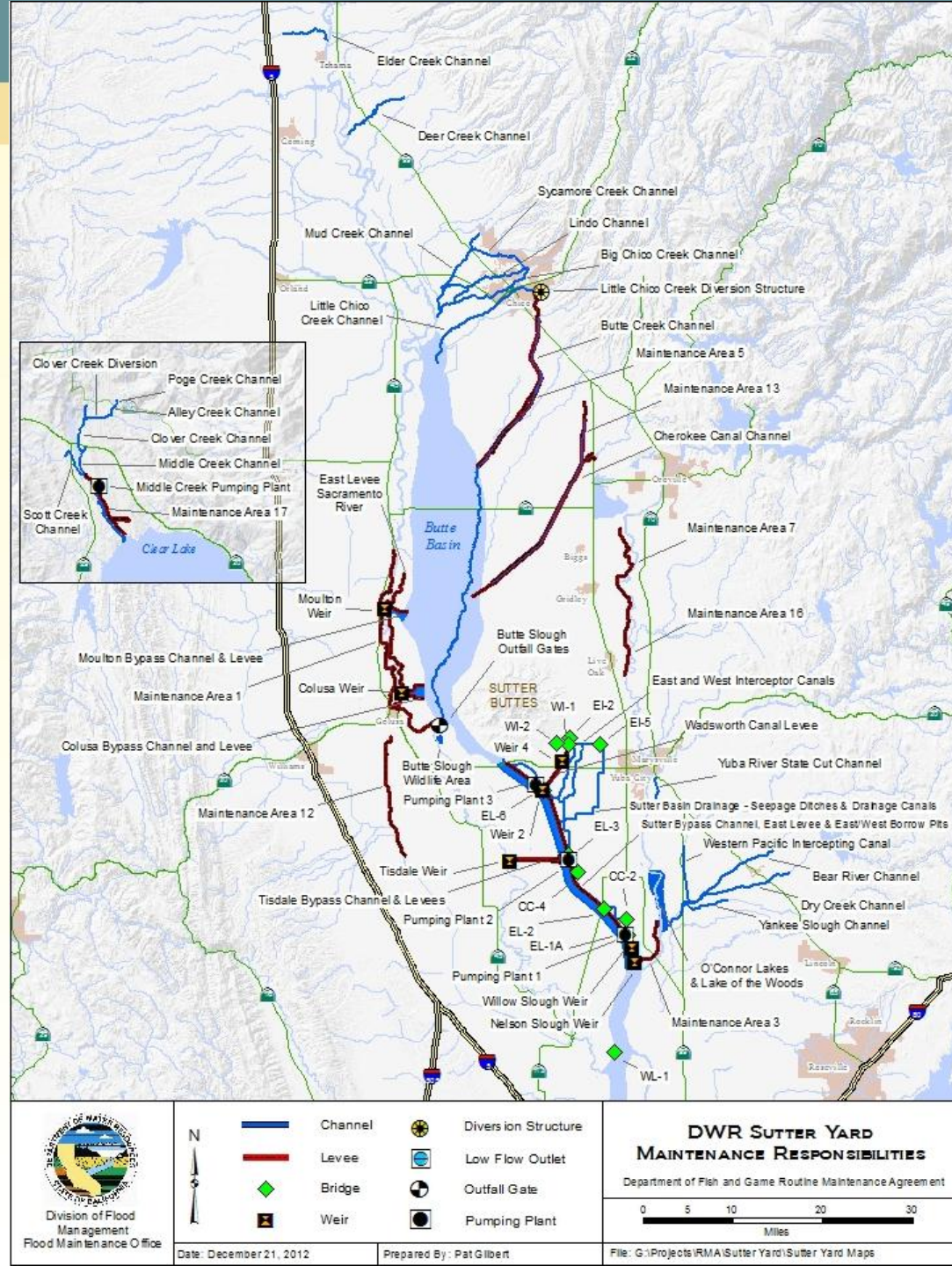
**DWR SACRAMENTO YARD
MAINTENANCE PROJECT AREAS**
Department of Fish and Game Routine Maintenance Agreement

0 2.5 5 10 15 20
Miles

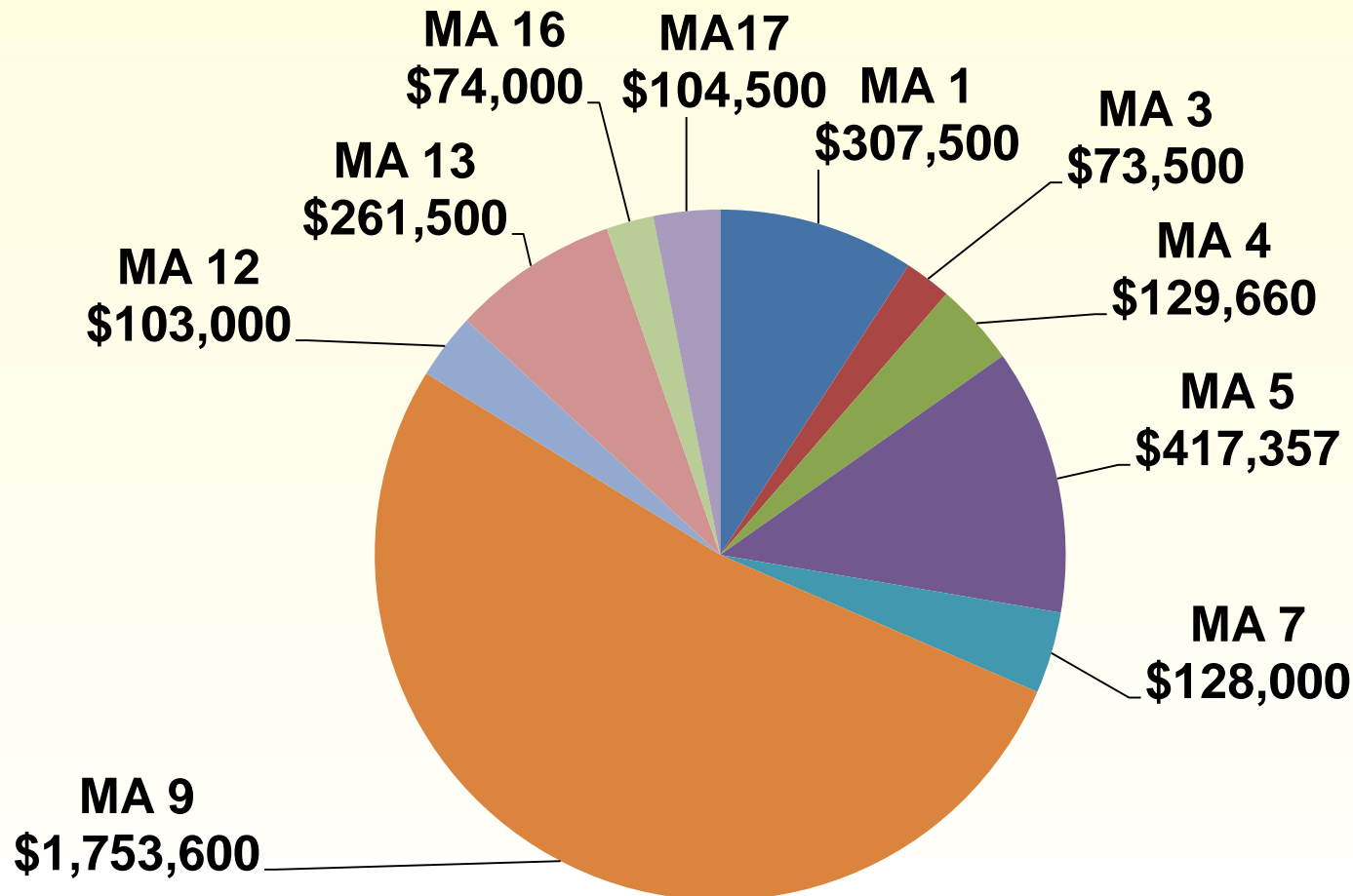
Date: January 4, 2013 Prepared By: Pat Gilbert and Melanie Powers Path: G:\Projects\IRMA\Sacramento Yard\Sacramento\MaintAreas 5x11.mxd

DWR Sutter Yard Areas of Responsibility

(NOT TO SCALE)



Maintenance Areas Budget FY 14/15 (\$3,352,617)

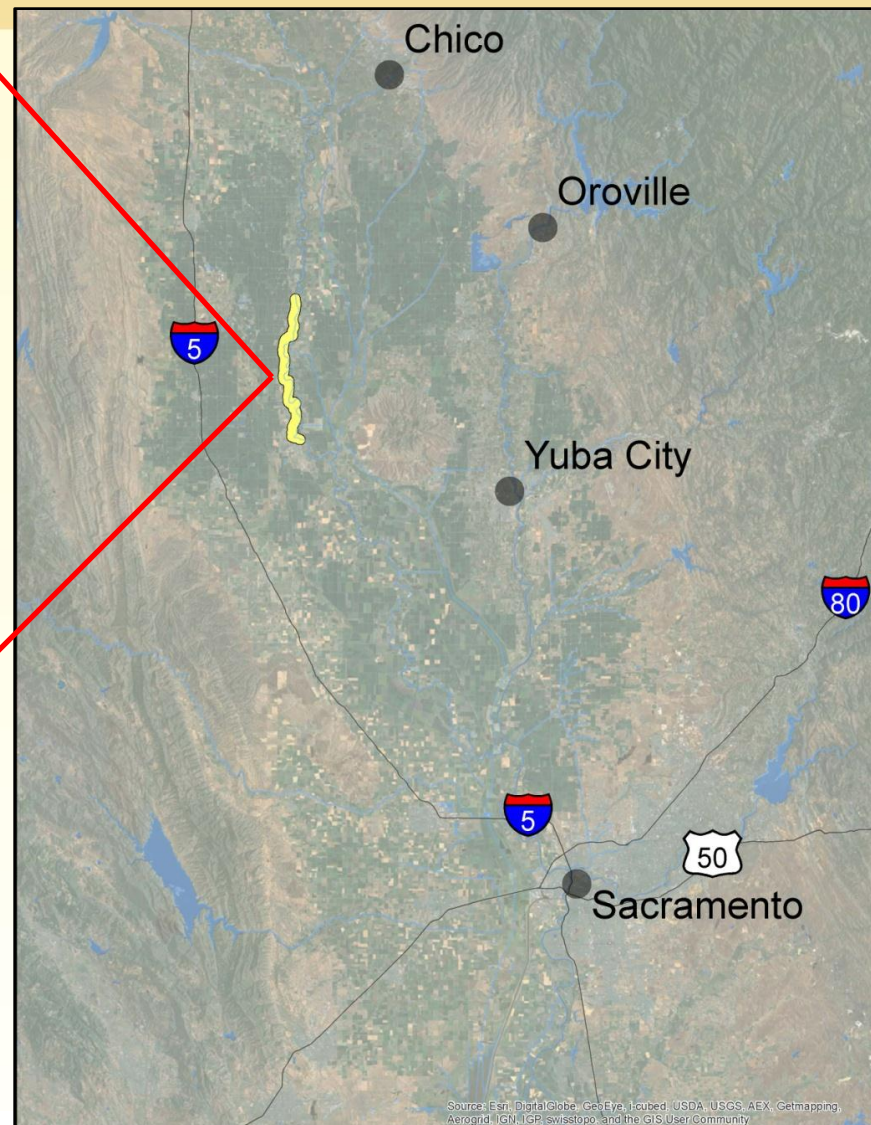
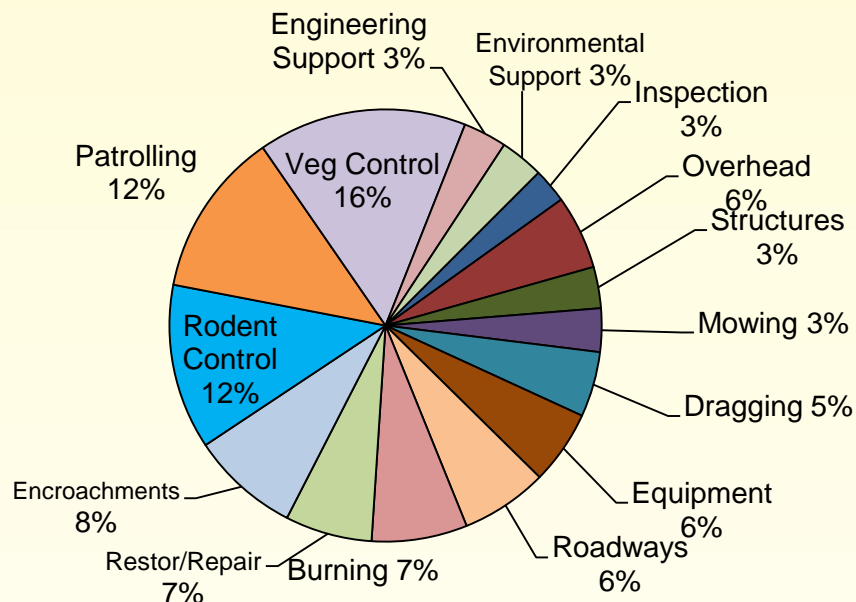


PUBLIC SAFETY

ENVIRONMENTAL STEWARDSHIP

ECONOMIC STABILITY





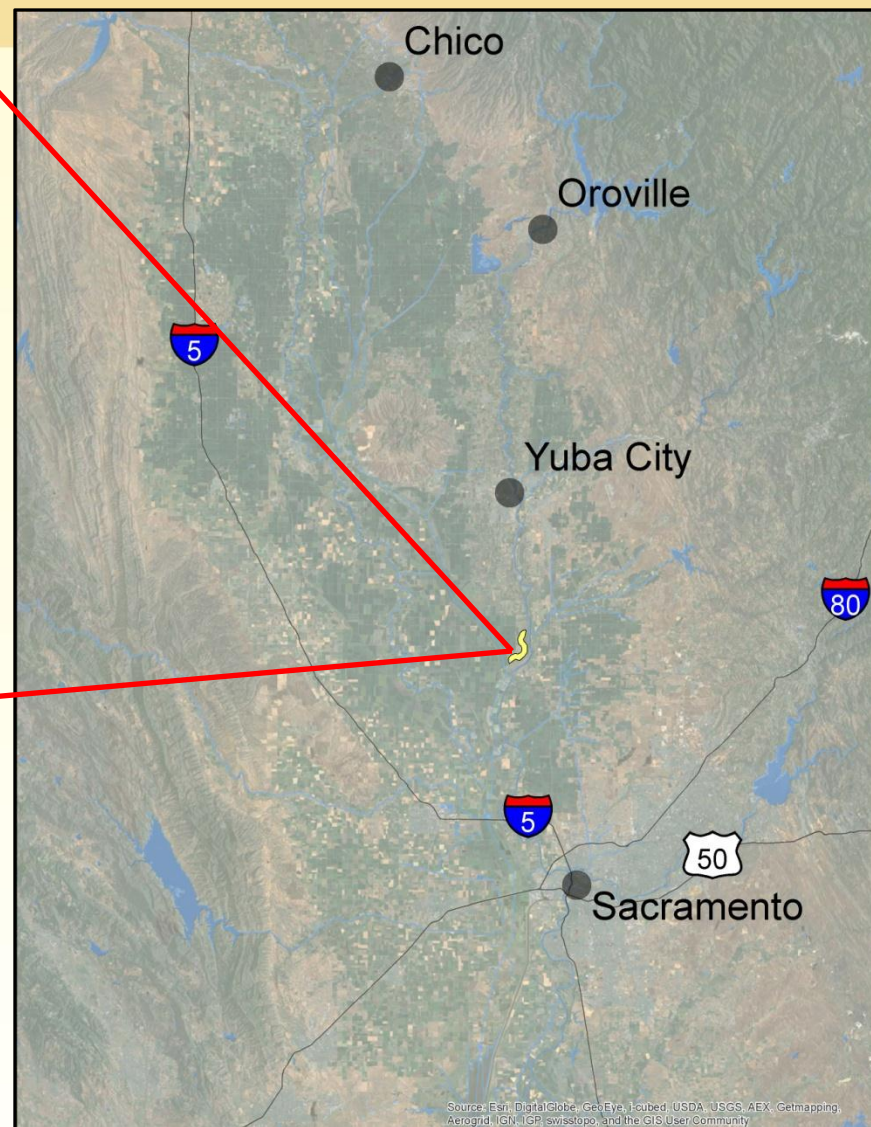
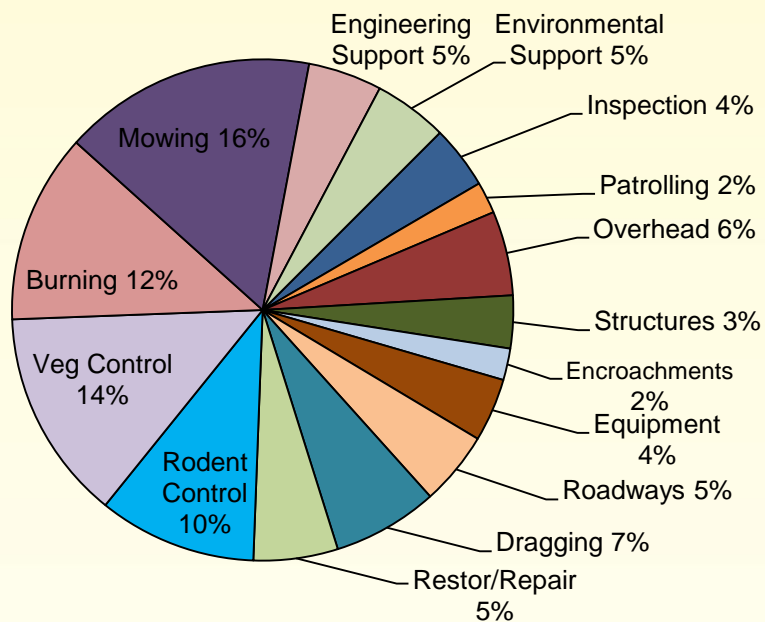
MA 1

**West Levee of
Sacramento River
Near Colusa**

**FY14/15 - \$307,500 (proposed)
17 Levee Miles**

MA 1 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 48,000	\$ 48,000	-
Burning	\$ 22,000	\$ 22,000	-
Rodent Control	\$ 38,000	\$ 38,000	-
Patrolling	\$ 38,000	\$ 38,000	-
Mowing	\$ 10,000	\$ 10,000	-
Inspection	\$ 4,000	\$ 8,000	100%
Encroachment Removal	\$ 30,000	\$ 25,000	-17%
Restoration/Repair	\$ 25,000	\$ 20,000	-20%
Crown Roadways	\$ 20,000	\$ 20,000	-
Minor Structures	\$ 9,500	\$ 9,500	-
Dragging	\$ 15,000	\$ 15,000	-
MEO Equipment Costs	\$ 17,000	\$ 17,000	-
Maintenance Yard Overhead	\$ 8,000	\$ 17,000	213%
Telemetry Maintenance	-	-	-
Engineering Support	-	\$ 10,000	-
Environmental Support	-	\$ 10,000	-
TOTAL BUDGET	\$ 284,500	\$ 307,500	8%

17 Levee Miles



MA 3

West Levee

Feather River near

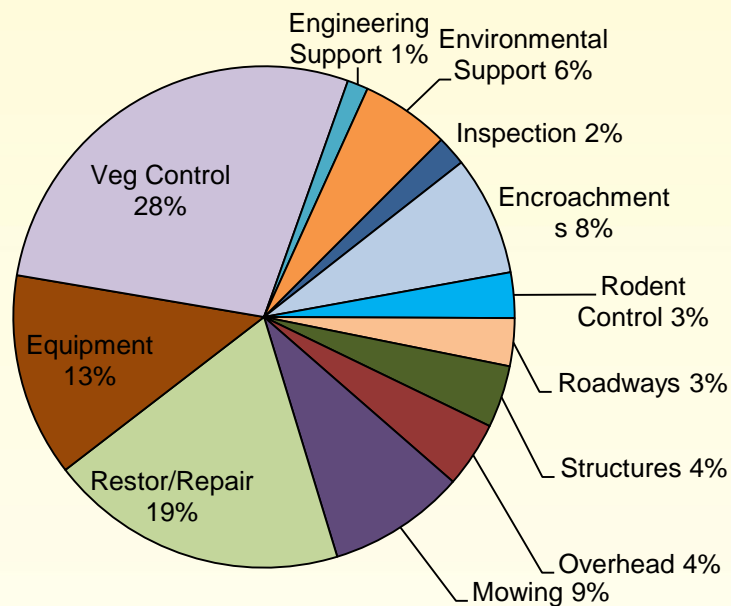
Sutter Bypass

FY14/15 - \$73,500 (proposed)

5 Levee Miles

MA 3 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 10,000	\$ 10,000	-
Burning	\$ 10,000	\$ 9,000	-10%
Rodent Control	\$ 7,500	\$ 7,500	-
Patrolling	\$ 1,500	\$ 1,500	-
Mowing	\$ 12,500	\$ 12,000	-4%
Inspection	\$ 1,000	\$ 3,000	300%
Encroachment Removal	\$ 3,000	\$ 1,500	-50%
Restoration/Repair	\$ 6,500	\$ 4,000	-38%
Crown Roadways	\$ 3,500	\$ 3,500	-
Minor Structures	\$ 2,500	\$ 2,500	-
Dragging	\$ 4,000	\$ 5,000	25%
MEO Equipment Costs	\$ 3,000	\$ 3,000	-
Maintenance Yard Overhead	\$ 2,000	\$ 4,000	100%
Telemetry Maintenance	\$ -	\$ -	-
Engineering Support	-	\$ 3,500	
Environmental Support	-	\$ 3,500	
TOTAL BUDGET	\$ 67,000	\$ 73,500	10%

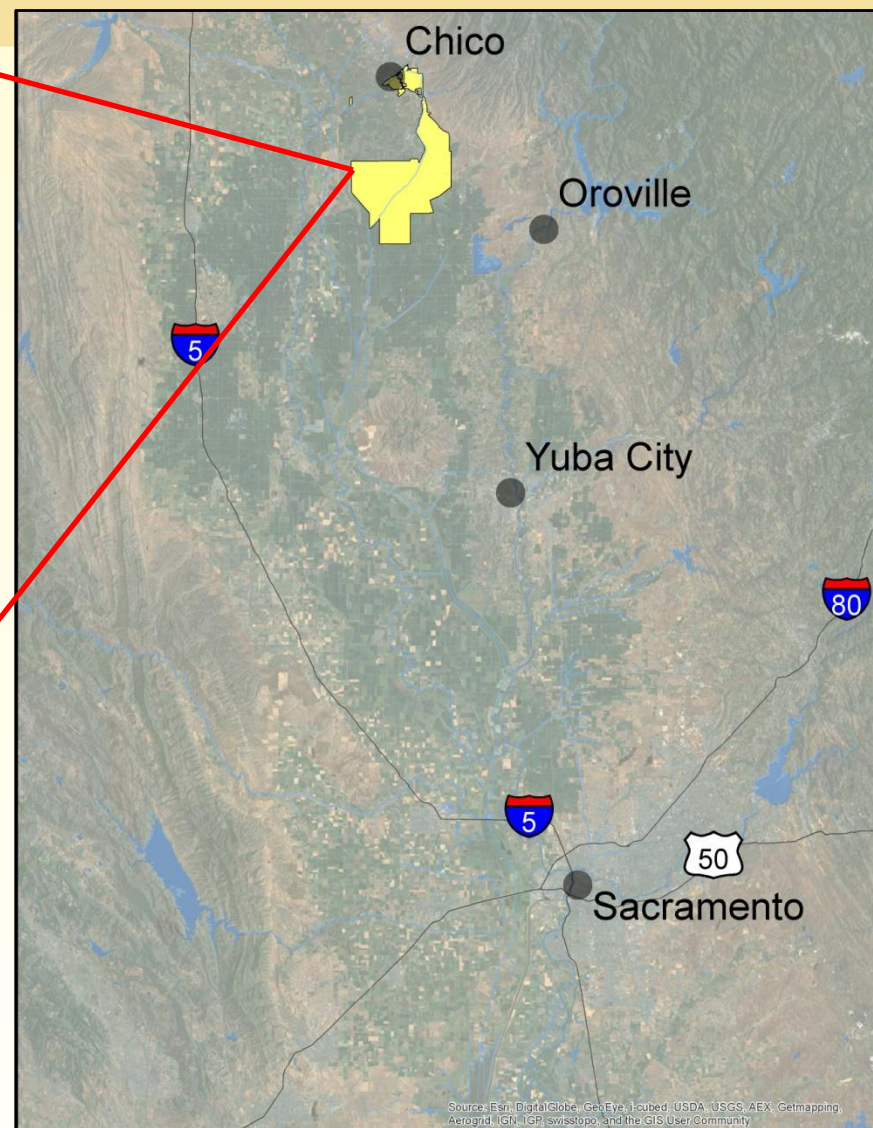
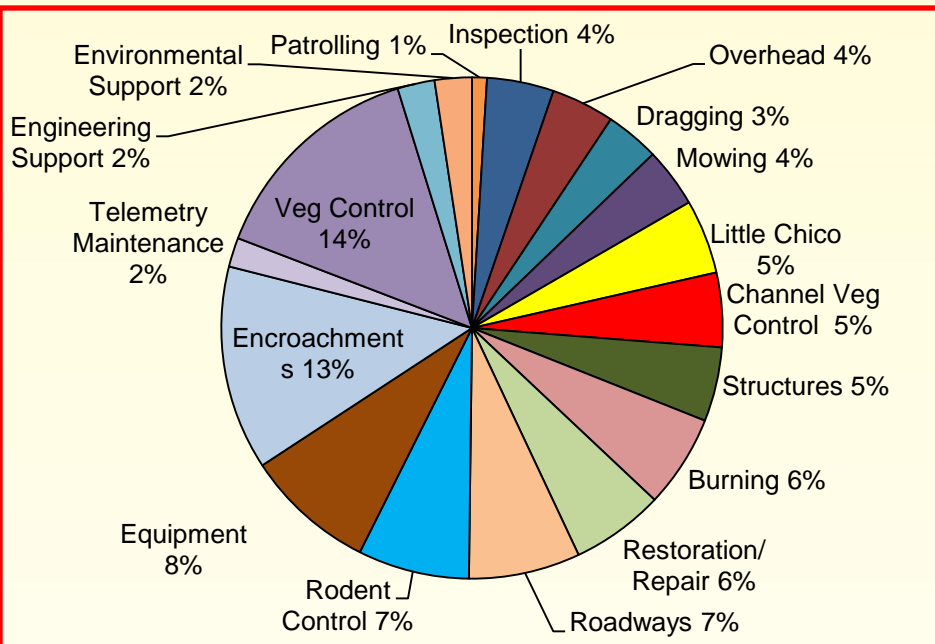
5 Levee Miles



MA 4 Sacramento River Levee in West Sacramento FY14/15 - \$129,660 (proposed) 3 Levee Miles

MA 4 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 28,000	\$ 36,000	29%
Burning	\$ -	\$ -	-
Rodent Control	\$ 3,000	\$ 3,800	27%
Patrolling	\$ -	\$ -	-
Mowing	\$ 9,000	\$ 11,500	28%
Inspection	\$ 2,000	\$ 2,500	25%
Encroachment Removal	\$ 2,000	\$ 10,000	500%
Restoration/Repair	\$ 15,000	\$ 25,000	67%
Crown Roadways	\$ 3,000	\$ 4,000	33%
Minor Structures	\$ 4,000	\$ 5,200	30%
Dragging	\$ -	\$ -	-
MEO Equipment Costs	\$ 17,000	\$ 17,000	-
Maintenance Yard Overhead	\$ 4,000	\$ 5,500	38%
Telemetry Maintenance	\$ -	\$ -	-
Engineering Support	-	\$ 1,740	-
Environmental Support	-	\$ 7,420	-
TOTAL BUDGET	\$ 87,000	\$ 129,660	49%

3 Levee Miles



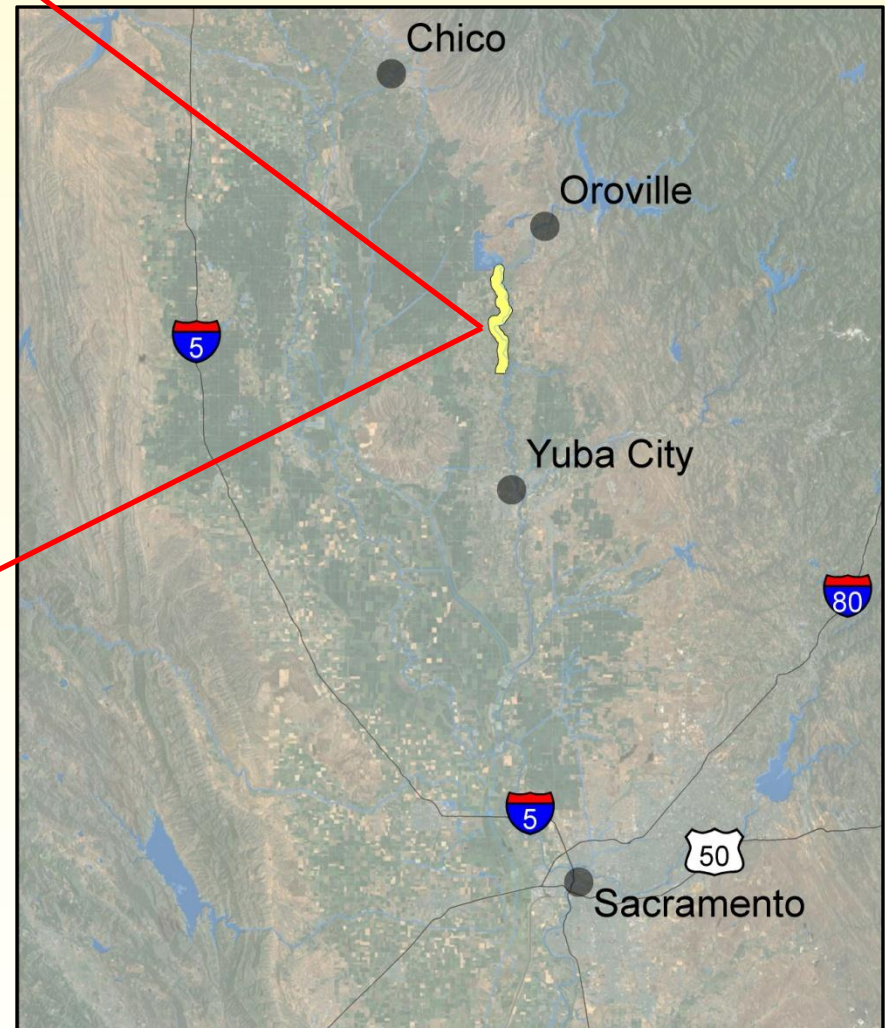
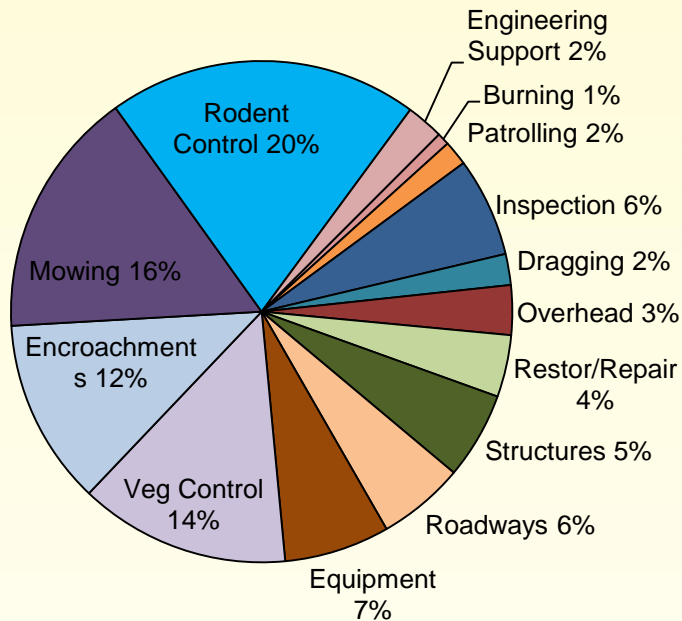
MA 5
Butte Creek Levees and
Little Chico
Creek Channel
FY14/15 - \$417,357 (proposed)
33 Levee Miles

MA 5 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 76,000	\$ 60,000	-21%
Burning	\$ 25,000	\$ 25,000	-
Rodent Control	\$ 34,000	\$ 30,000	-12%
Patrolling	\$ 4,000	\$ 4,000	-
Mowing	\$ 16,000	\$ 16,000	-
Inspection	\$ 6,000	\$ 18,000	300%
Encroachment Removal	\$ 65,000	\$ 55,000	-15%
Restoration/Repair	\$ 30,000	\$ 25,000	-17%
Crown Roadways	\$ 30,000	\$ 30,000	-
Minor Structures	\$ 23,000	\$ 20,000	-13%
Dragging	\$ 14,500	\$ 14,500	-
Little Chico Diversion Structure	\$ 20,000	\$ 20,000	-
Sediment Removal	\$ -	\$ -	-
Vegetation Control Channel	\$ 20,000	\$ 20,000	-
MEO Equipment Costs	\$ 35,000	\$ 35,000	-
Maintenance Yard Overhead	\$ 10,000	\$ 17,000	70%
Telemetry Maintenance	\$ -	\$ 7,857	-
Engineering Support	-	\$ 10,000	-
Environmental Support	-	\$ 10,000	-
TOTAL BUDGET	\$ 408,500	\$ 417,357	2%

33 Levee Miles

MA5 Pipe Replacement





MA 7 **West Levee** **Feather River below Oroville** **FY14/15 - \$128,000 (proposed)** **12 Levee Miles**

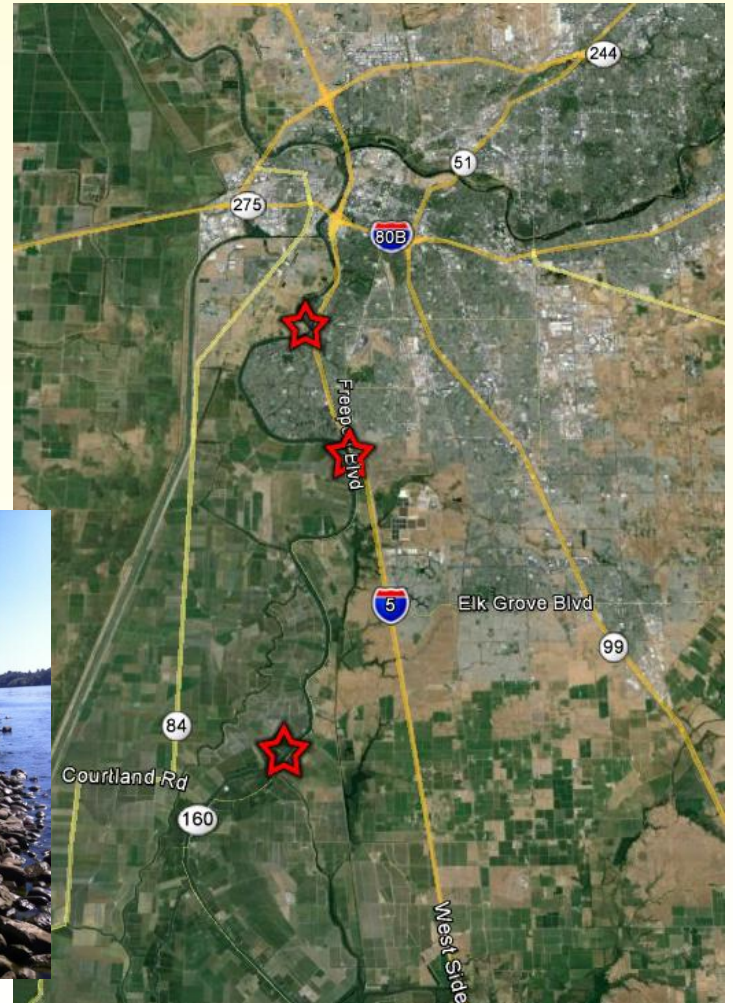
MA 7 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 17,000	\$ 17,000	-
Burning	\$ 1,500	\$ 1,000	-33%
Rodent Control	\$ 29,000	\$ 25,000	-14%
Patrolling	\$ 2,000	\$ 2,000	-
Mowing	\$ 20,500	\$ 20,000	-2%
Inspection	\$ 2,000	\$ 8,000	400%
Encroachment Removal	\$ 17,000	\$ 15,000	-12%
Restoration/Repair	\$ 6,000	\$ 5,000	-17%
Crown Roadways	\$ 7,500	\$ 7,000	-7%
Minor Structures	\$ 7,000	\$ 7,000	-
Dragging	\$ 2,500	\$ 2,500	-
MEO Equipment Costs	\$ 8,500	\$ 8,500	-
Maintenance Yard Overhead	\$ 3,800	\$ 4,000	5%
Engineering Support	-	\$ 3,000	-
Environmental Support	-	\$ 3,000	-
TOTAL BUDGET	\$124,300	\$128,000	3%

12 Levee Miles

MA 9 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 184,000	\$ 240,000	30%
Burning	\$ -	\$ -	-
Rodent Control	\$ 60,000	\$ 77,000	28%
Patrolling	\$ 35,000	\$ 45,000	29%
Mowing	\$ 85,000	\$ 110,000	29%
Inspection	\$ 7,000	\$ 9,000	29%
Encroachment Removal	\$ 300,000	\$ 385,000	28%
Restoration/Repair	\$ 425,000	\$ 540,000	27%
Crown Roadways	\$ 32,000	\$ 42,000	31%
Minor Structures	\$ 32,000	\$ 40,000	25%
Dragging	\$ -	\$ -	-
MEO Equipment Costs	\$ 125,000	\$ 125,000	-
Maintenance Yard Overhead	\$ 54,000	\$ 70,000	30%
Telemetry Maintenance	\$ -	\$ -	-
Engineering Support	-	\$ 60,000	-
Environmental Support	-	\$ 10,600	-
TOTAL BUDGET	\$ 1,339,000	\$1,753,600	31%

20 Levee Miles

MA9 Erosion Repairs



MA9 Easement Identification

Areas With No Yellow Border
Need Analysis, Determination
And Monumentation

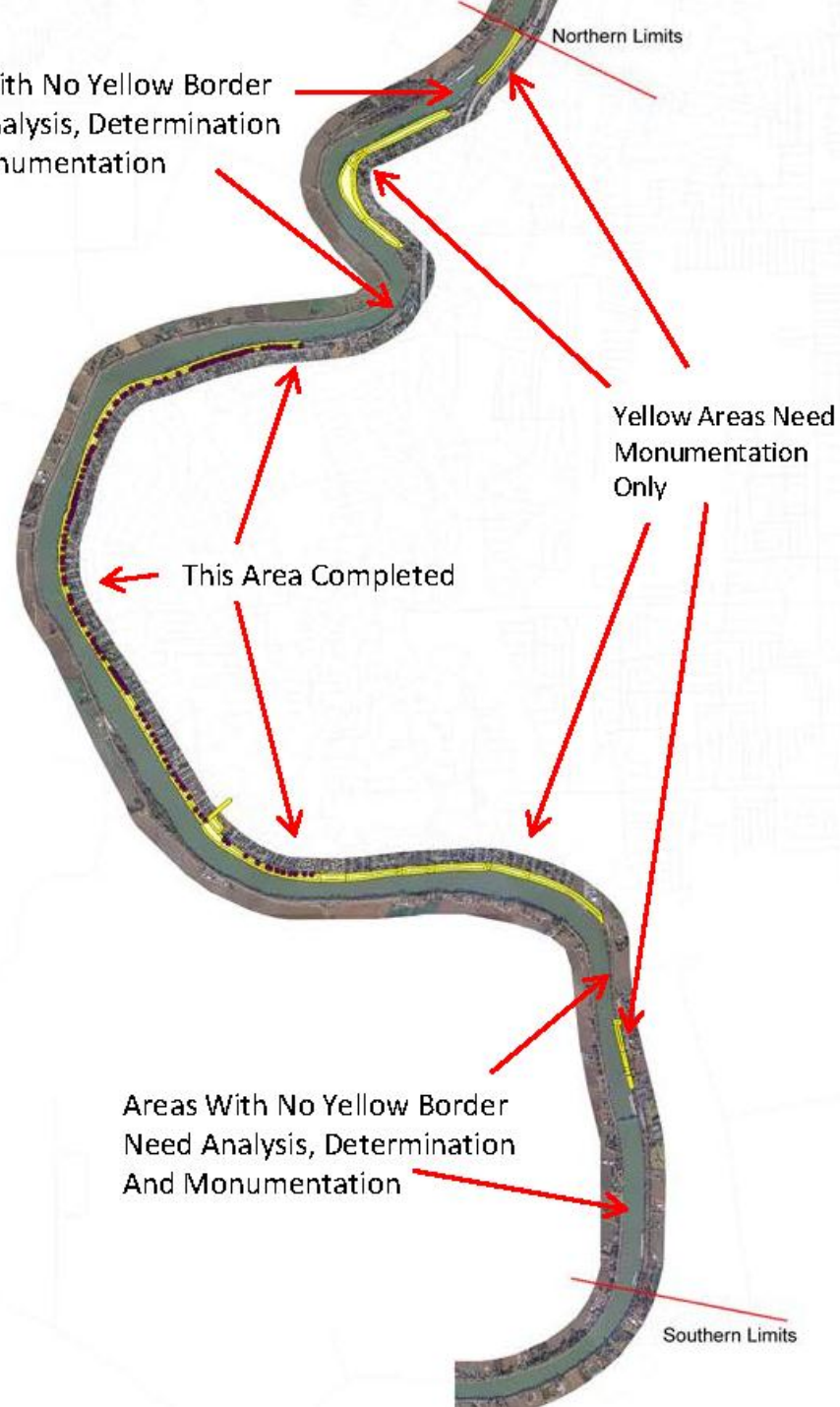
Northern Limits

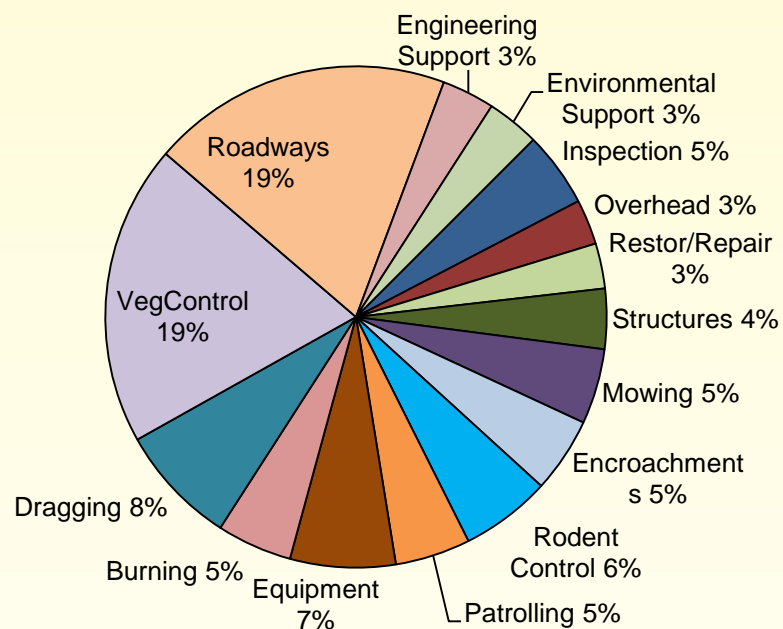
Yellow Areas Need
Monumentation
Only

This Area Completed

Areas With No Yellow Border
Need Analysis, Determination
And Monumentation

Southern Limits

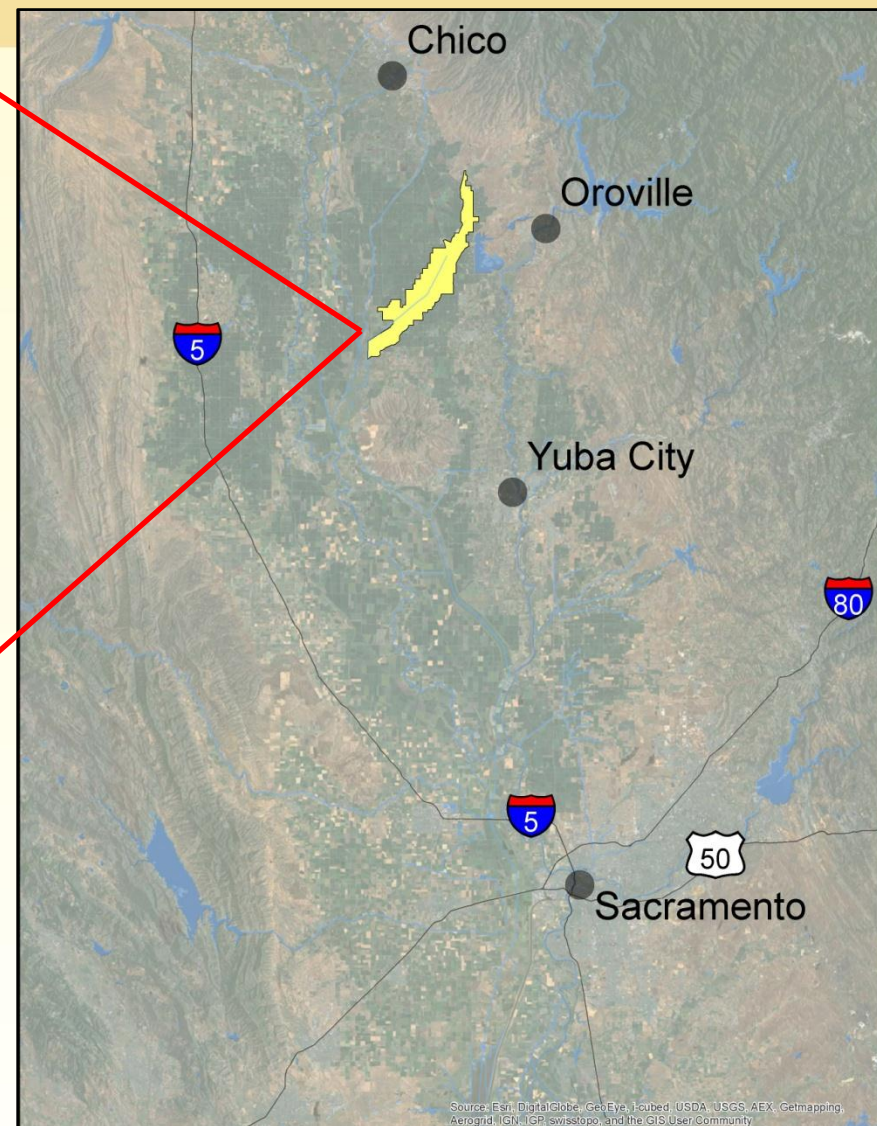
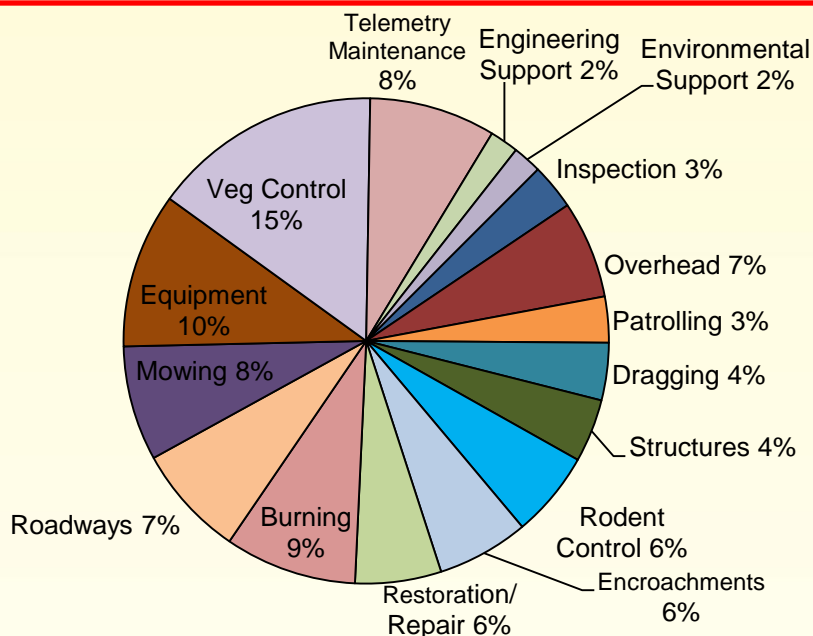




MA 12 Colusa Drain Levee FY14/15 - \$103,000 (proposed) 11 Levee Miles

MA 12 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 17,000	\$ 20,000	18%
Burning	\$ 7,500	\$ 5,000	-33%
Rodent Control	\$ 6,000	\$ 6,000	-
Patrolling	\$ 6,000	\$ 5,000	-17%
Mowing	\$ 5,500	\$ 5,000	-9%
Inspection	\$ 3,000	\$ 5,000	67%
Encroachment Removal	\$ 5,500	\$ 5,000	-9%
Restoration/Repair	\$ 3,500	\$ 3,000	-14%
Crown Roadways	\$ 22,000	\$ 20,000	-9%
Minor Structures	\$ 4,000	\$ 4,000	-
Dragging	\$ 8,500	\$ 8,000	-6%
MEO Equipment Costs	\$ 7,000	\$ 7,000	-
Maintenance Yard Overhead	\$ 3,000	\$ 3,000	-
Telemetry Maintenance	\$ -	\$ -	-
Engineering Support	-	\$ 3,500	-
Environmental Support	-	\$ 3,500	-
TOTAL BUDGET	\$ 98,500	\$ 103,000	5%

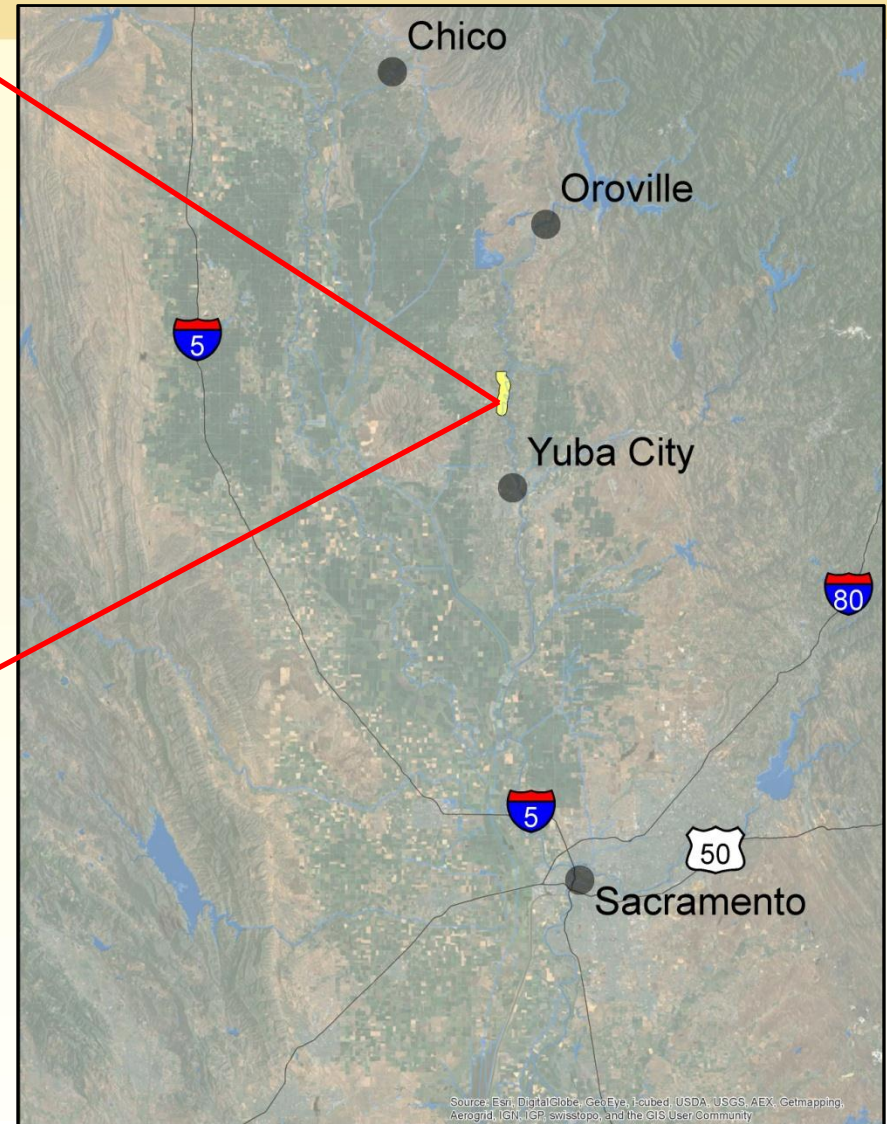
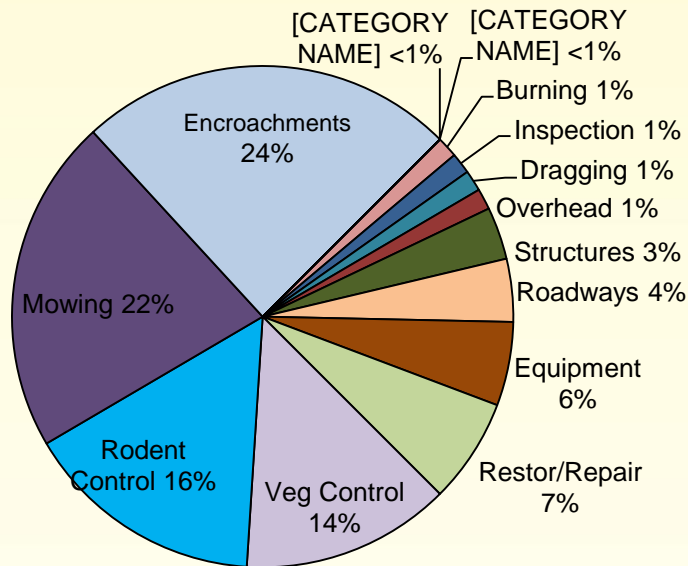
11 Levee Miles



MA 13
Cherokee Canal Levees
FY14/15 - \$261,500 (proposed)
41 Levee Miles

MA 13 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 45,000	\$ 40,000	-11%
Burning	\$ 23,000	\$ 23,000	-
Rodent Control	\$ 17,000	\$ 15,000	-12%
Patrolling	\$ 8,500	\$ 8,000	-6%
Mowing	\$ 25,000	\$ 20,000	-20%
Inspection	\$ 3,000	\$ 8,000	267%
Encroachment Removal	\$ 20,000	\$ 16,000	-20%
Restoration/Repair	\$ 20,000	\$ 15,000	-25%
Crown Roadways	\$ 24,000	\$ 19,500	-19%
Minor Structures	\$ 12,500	\$ 11,000	-12%
Dragging	\$ 10,000	\$ 10,000	-
MEO Equipment Costs	\$ 27,000	\$ 27,000	-
Maintenance Yard Overhead	\$ 5,000	\$ 17,000	340%
Telemetry Maintenance	\$ -	\$ 22,000	-
Engineering Support	-	\$ 5,000	-
Environmental Support	-	\$ 5,000	-
TOTAL BUDGET	\$ 240,000	\$ 261,500	9%

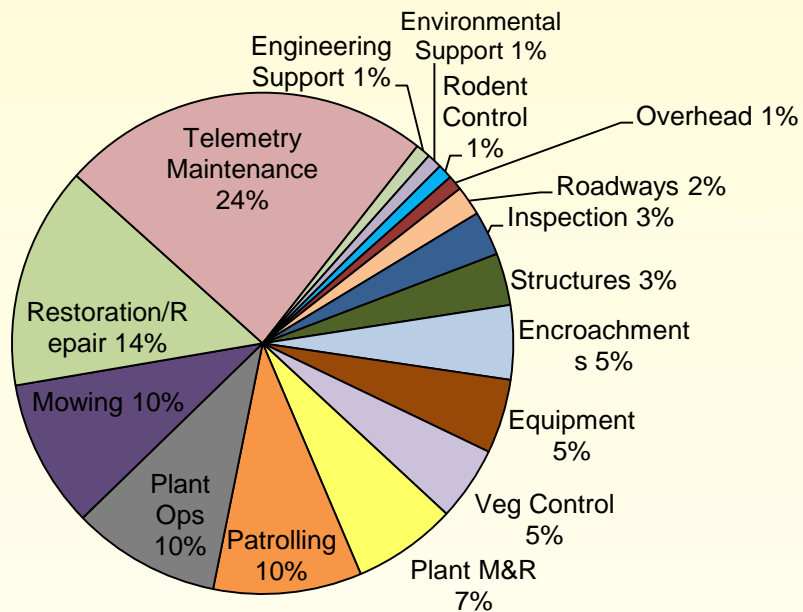
41 Levee Miles



MA 16
West Levee
Feather River near Live Oak
FY14/15 - \$74,000 (proposed)
6 Levee Miles

MA 16 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 10,000	\$ 10,000	-
Burning	\$ 1,000	\$ 1,000	-
Rodent Control	\$ 11,500	\$ 11,500	-
Patrolling	\$ -	\$ -	-
Mowing	\$ 16,000	\$ 16,000	-
Inspection	\$ 1,000	\$ 1,000	-
Encroachment Removal	\$ 18,000	\$ 18,000	-
Restoration/Repair	\$ 5,000	\$ 5,000	-
Crown Roadways	\$ 3,000	\$ 3,000	-
Minor Structures	\$ 2,500	\$ 2,500	-
Dragging	\$ 1,000	\$ 1,000	-
MEO Equipment Costs	\$ 4,000	\$ 4,000	-
Maintenance Yard Overhead	\$ 1,000	\$ 1,000	-
Telemetry Maintenance	\$ -	\$ -	-
Engineering Support	-	\$ -	-
Environmental Support	-	\$ -	-
TOTAL BUDGET	\$ 74,000	\$ 74,000	-

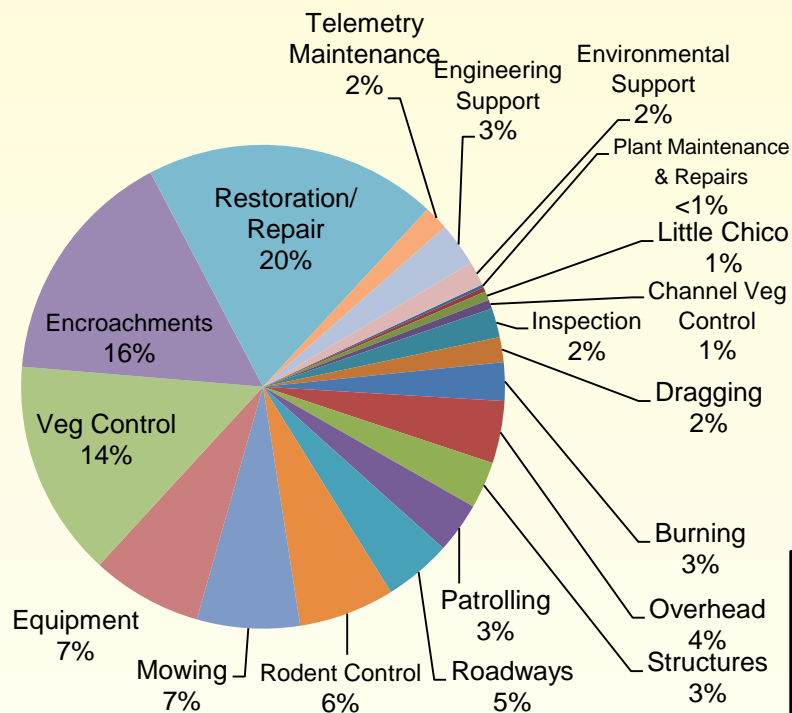
6 Levee Miles



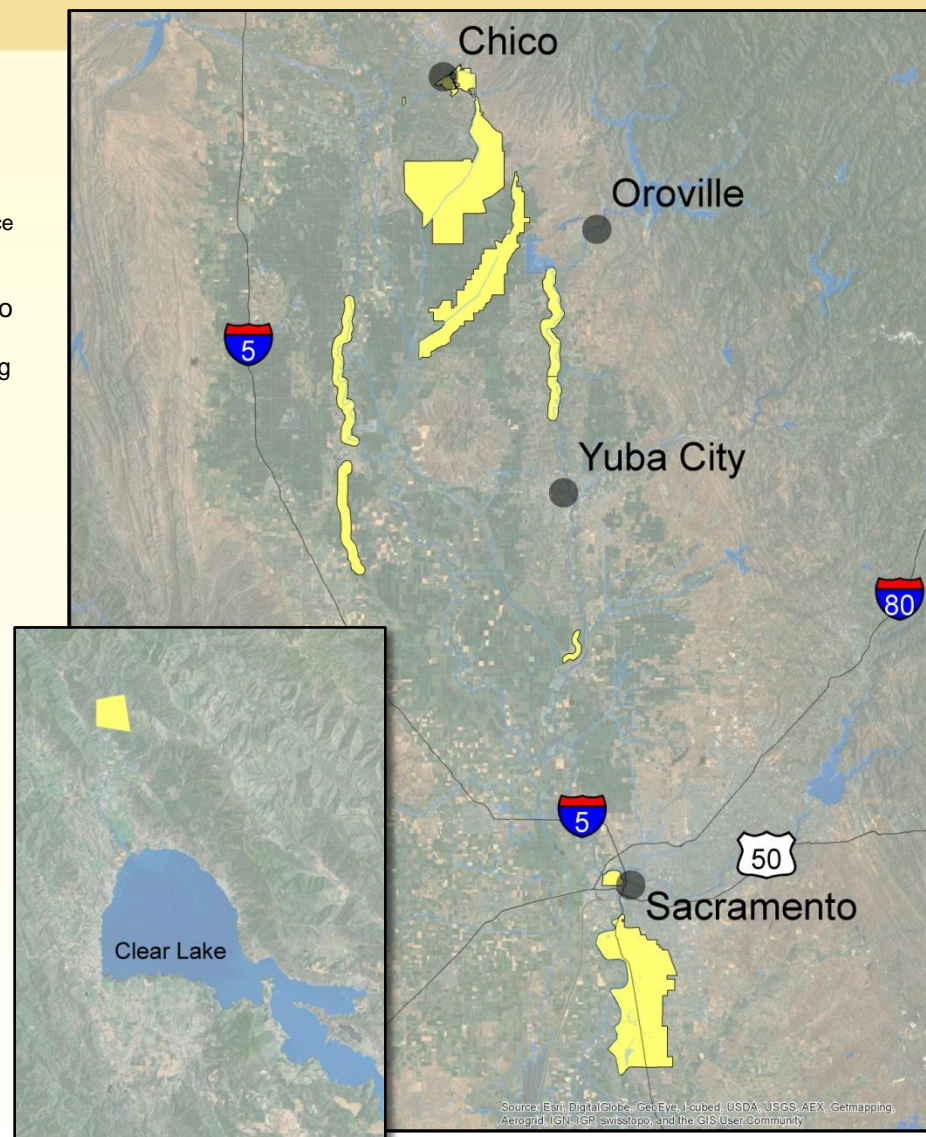
MA 17
Middle Creek at
Clear Lake
FY14/15 - \$104,500 (proposed)
4 Levee Miles

MA 17 JOB CATEGORY	2013-2014 APPROVED BUDGET	2014-2015 PROPOSED BUDGET	% Change BUDGET
Vegetation Control	\$ 5,700	\$ 5,000	-12%
Burning	\$ -	\$ -	-
Rodent Control	\$ 1,000	\$ 1,000	-
Patrolling	\$ 10,000	\$ 10,000	-
Mowing	\$ 13,000	\$ 10,000	-23%
Inspection	\$ 3,000	\$ 3,000	-
Encroachment Removal	\$ 5,000	\$ 5,000	-
Restoration/Repair	\$ 30,000	\$ 15,000	-50%
Crown Roadways	\$ 2,500	\$ 2,000	-20%
Minor Structures	\$ 3,500	\$ 3,500	-
Dragging	\$ -	\$ -	-
Plant Maintenance & Repairs	\$ 7,500	\$ 7,000	-7%
Plant Operations	\$ 12,000	\$ 10,000	-17%
MEO Equipment Costs	\$ 5,000	\$ 5,000	-
Maintenance Yard Overhead	\$ 1,000	\$ 1,000	-
Telemetry Maintenance	\$ -	\$ 25,000	-
Engineering Support	-	\$ 1,000	-
Environmental Support	-	\$ 1,000	-
TOTAL BUDGET	\$ 99,200	\$ 104,500	5%

4 Levee Miles



**FY14/15
Average
Maintenance Area Costs
152 Levee Miles
Overall 19% Increase**



DWR Actions in Response to Periodic Inspection Results

- Underseepage Relief Wells/Toe Drainage Systems
 - Conditions under evaluation
- Cracking
 - Areas are being observed for stability issues. Where stability issues exist, cracking is addressed through routine maintenance or SERP/FSRP
- Encroachments
 - MA9 Easement Identification work is proceeding with DWR Geodetic Branch
 - CVFPB Encroachment Enforcement Pilot Program for MA9




DWR Actions in Response to Periodic Inspection Results Continued

- Animal Control
 - All areas implementing DWR's Rodent Abatement/Damage Repair and Rehabilitation Program (RADRRP)
 - All levees are being evaluated for GGS habitat presence or absence
 - Submittals for Rodent Damage Repair (primarily grouting) under CA DFW Routine Maintenance Agreement in preparation.
- Vegetation
 - Routine Maintenance to achieve visibility and accessibility criteria.
- Culverts/Discharge Pipes
 - Evaluated during routine inspection and addressed on worst case first basis

DWR Actions in Response to Periodic Inspection Results Continued

- Areas of concern being addressed during routine maintenance activities or under SERP/FSRP for:
 - Encroachments (worst case first basis)
 - Erosion/Bank Caving
 - Riprap Revetments and Bank Protection
 - Slope Stability
 - Sod Cover/Erosion Rills
 - Depressions/Rutting
 - Settlement (local settlement often caused by burrowing animal activity)

Requested Board Action

- DWR request the Central Valley Flood Protection Board Adopt the Fiscal Year 2014/15 Maintenance Area Budgets as presented, pursuant to California Water Code Section 12878, et. seq.
- California Water Code Sections:
 - 12878.27 – DWR provides annual cost estimate 
 - 12878.28 – Hearing held after April 1 
 - 12878.29 – Notice of Hearing; publication 
 - 12878.30 – Fixing amount of estimate

(Requested Board Action to Adopt Proposed Budget)