

Butte Fire Briefing

October 13, 2015

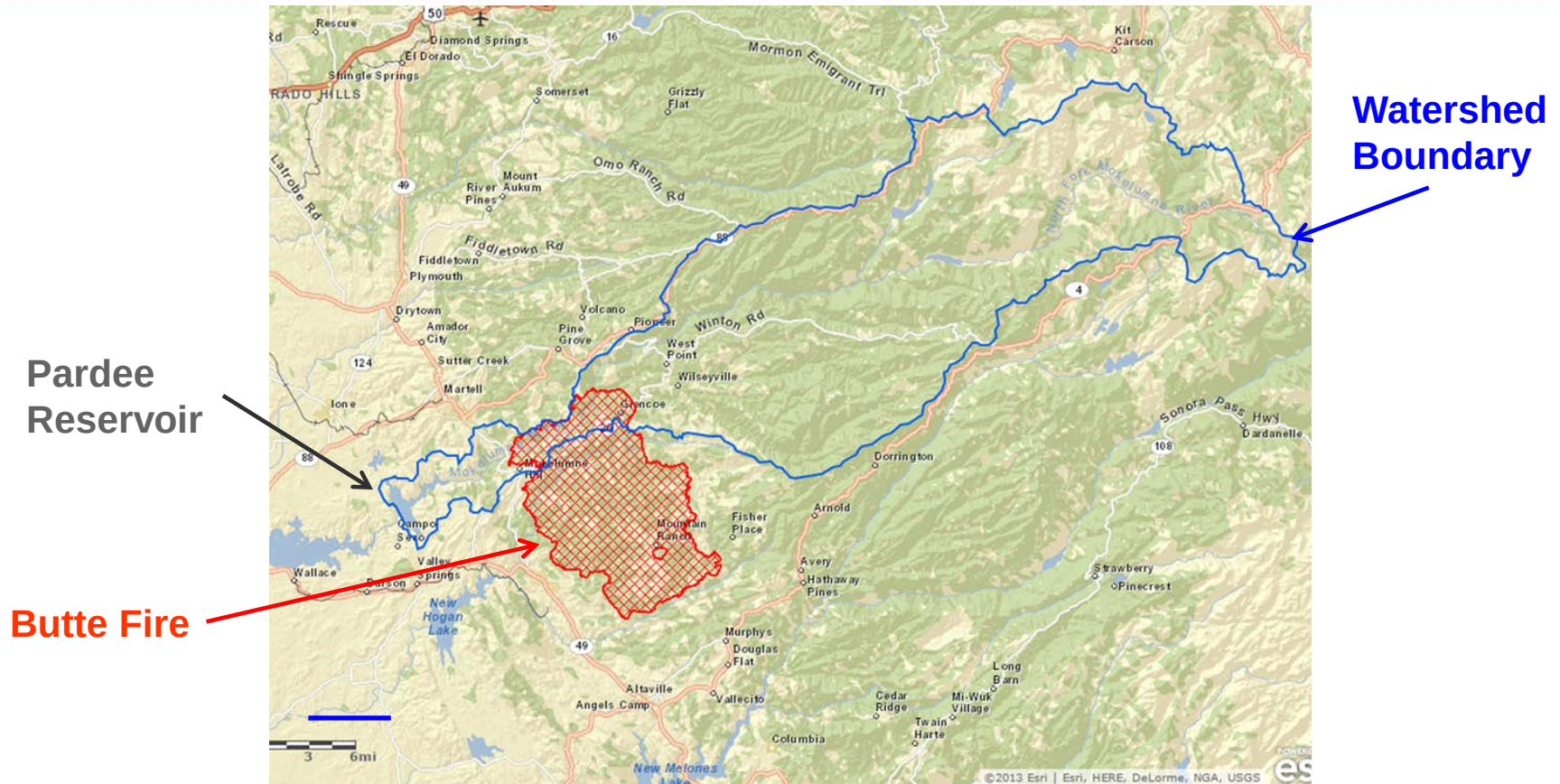
Butte Fire



- 70,868 acres burned
- 100% contained on 10/1
- 2 fatalities
- 475 residences, 388 buildings destroyed
- 13 employee's evacuated, 3 lost homes

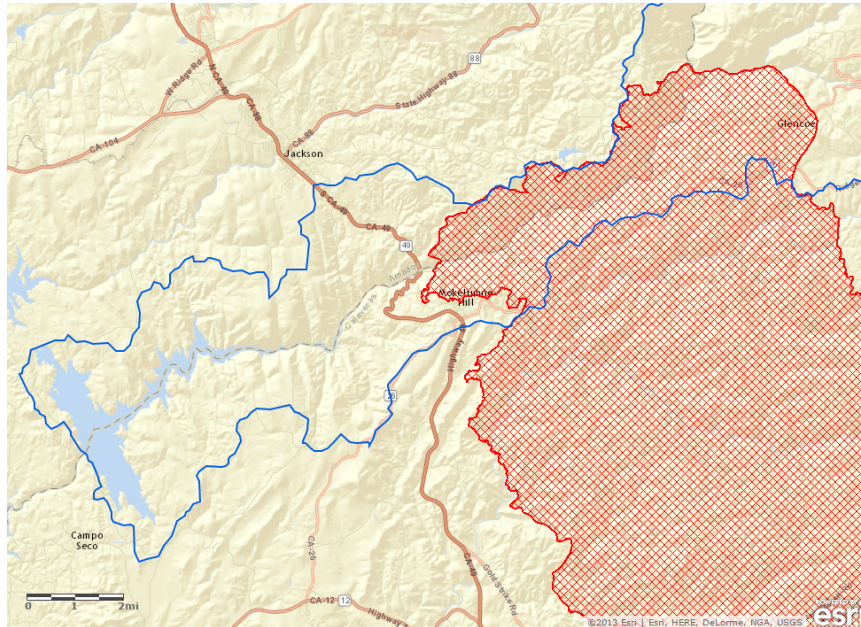


Butte Fire Area Map



Butte Fire

Mokelumne River Watershed



Watershed Acres Burned

- 12,000

River Miles Burned:

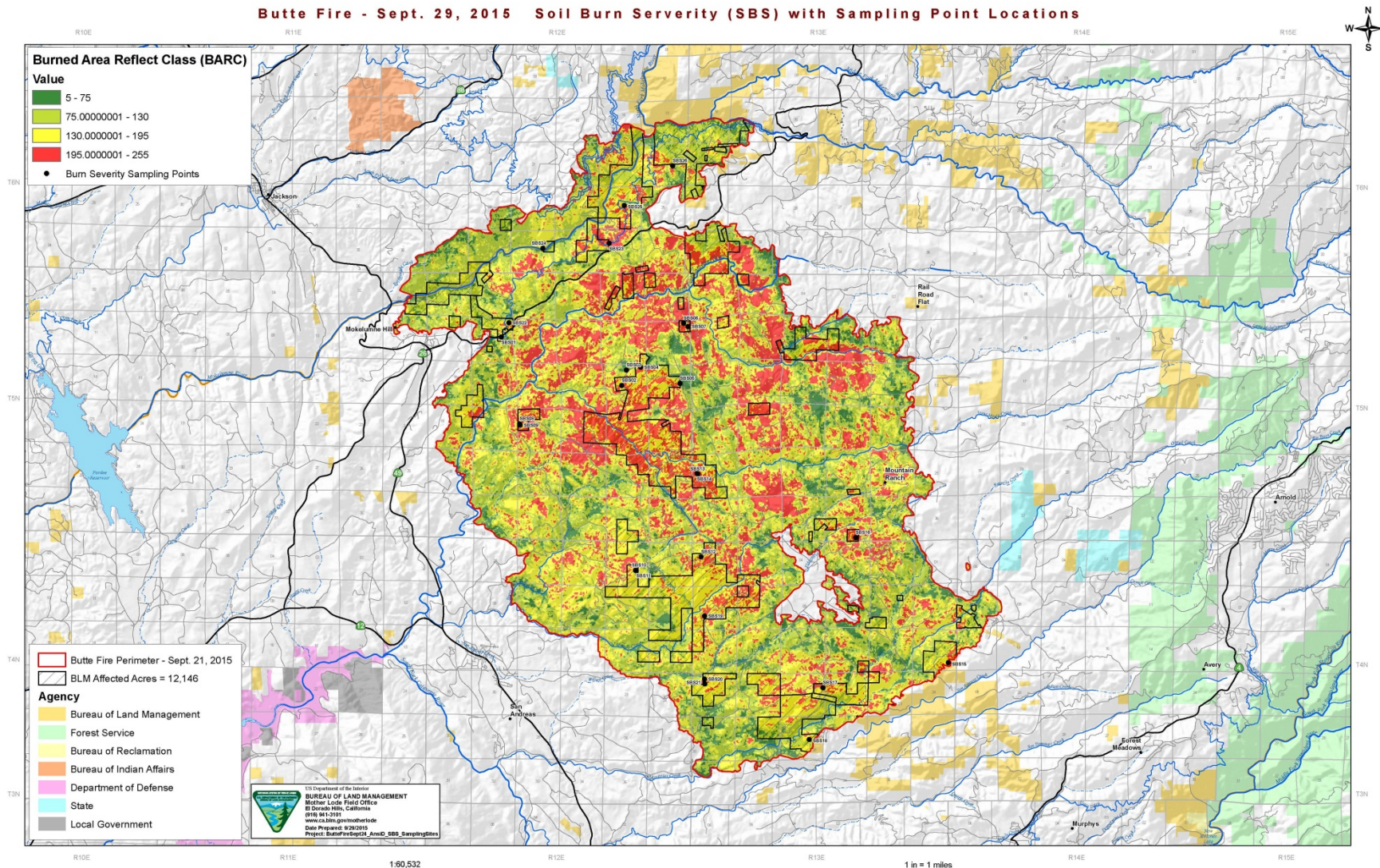
- Mokelumne main stem 9
- Middle Fork 1.5
- South Fork (0.5 miles) 0.5

Location: Just above Hwy 49 & Pardee Reservoir

Butte Fire Burn Severity Map

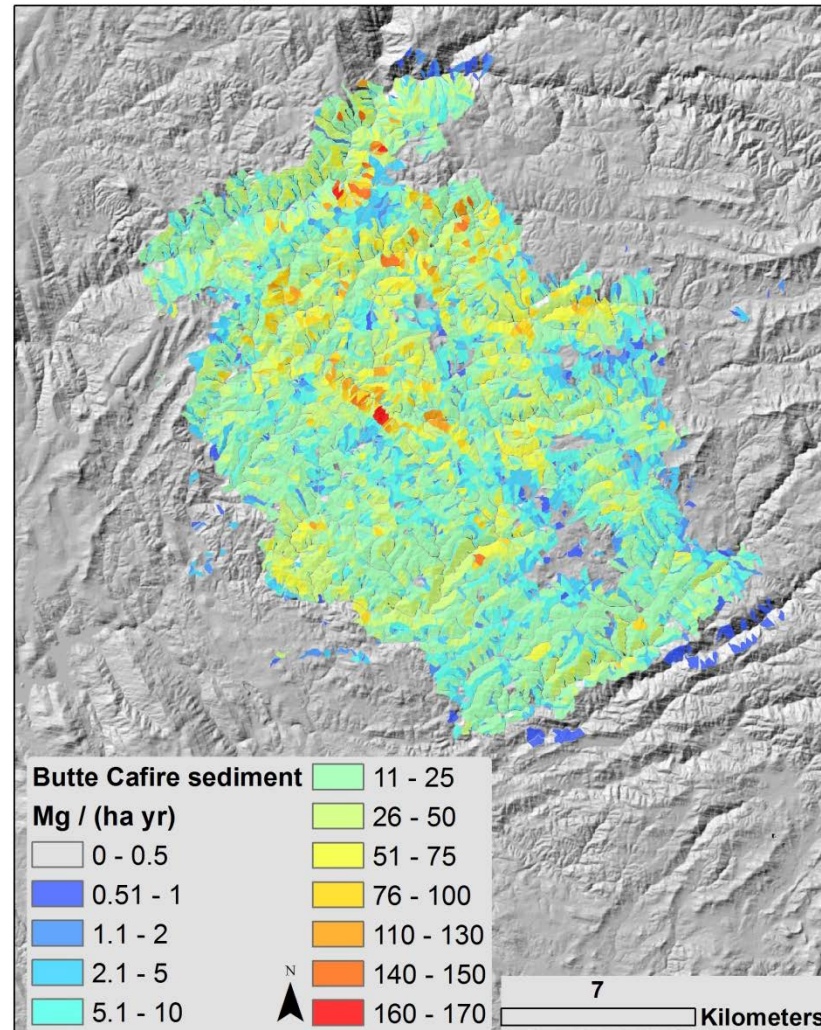


Butte Fire - Sept. 29, 2015 Soil Burn Serverity (SBS) with Sampling Point Locations



Butte Fire Erosion Potential

Calfire SBS hillslope erosion
yields for Butte Fire



Butte Fire Potential Impacts to District



- Water Quality
- Sedimentation in river and Pardee
- Debris

Butte Fire

EBMUD Response Actions



- Regular check-in with water agencies, no aid requested
- Opened up Camanche South Shore campground to displaced residents
- Housed some employees at Pardee Center
- Attending community/agency meetings
- Meeting with federal, state and local agencies to plan and implement restoration actions
- Initial volunteer restoration work to occur 10/17 on BLM property

Butte Fire

EBMUD Response Actions



- Establishing UMRWA task force to better coordinate/communicate, \$5K donation
- Surveyed burned area
- With BLM and CalFire identifying highest priorities for actions
- Work with landowners, public and private, to implement measures
- Implementing water quality monitoring program

Recovering From Wildfire Resources for Private Landowners



October 28th, 2015

9:00 a.m. – 4:00 p.m.

**San Andreas Town Hall
24 Church St, San Andreas, CA**

Workshop Objectives:

To increase understanding of role of wildfire in forest development and change, post-fire issues and treatment options and to provide information on post-fire treatment cost-share programs, tax issues and professional assistance for post-fire treatments for private landowners.

Who Should Attend:

Woodland and forest landowners affected by the Butte Fire, anyone interested in the future of forests after wildfire, staff and decision makers with state, local, federal and tribal agencies concerned with forest management, defensible space, and water quality.

8:45 - 9:00	<i>Check in, refreshments</i>
9:00 - 9:10	<i>Welcome</i>
9:10 - 9:50	<i>Forest Development /Post-fire management issues and treatment options</i> – Susie Kocher, University of California Cooperative Extension
9:50 - 10:30	<i>Post-fire Rehabilitation and Regulations on private land</i> – CalFire
10:30 - 10:45	<i>Break</i>
10:45 - 11:30	<i>Fire in California's Oak Woodland</i> – Doug McCreary, University of California, Natural Resource Specialist, Emeritus
11:30	<i>Lunch (lunch is on your own. Bring a sack lunch or visit a local eatery)</i>
12:30 - 2:20	<i>Working to carry out post-fire treatments</i> • <i>Role of Registered Professional Forester</i> – , Consulting forester • <i>Burned Oaks Which will Survive? / Oak Regeneration</i> – Doug McCreary • <i>Improving Annual Rangelands & Weed Management</i> – Scott Oneto, University of California Cooperative Extension • <i>Road Treatments</i> – • <i>Reforestation After a Fire on Private Lands</i> – Mark Egbert, El Dorado County & Georgetown Divide Resource Conservation District
2:20 - 3:00	<i>Post-fire tax procedures</i> – Larry Camp, Forest Landowners of California
3:00 - 3:40	<i>Landowner assistance</i> • <i>Working with Your Local Fire Safe Council</i> – • <i>Cost share programs</i> – Amy Rocha, Natural Resources Conservation Service • <i>Cost share programs</i> – CalFire Land Owner Assistance Programs
3:40 - 4:00	<i>Wrap-up</i>

Workshop is FREE, however seating is limited.

Register online at ucanr.edu/buttefireworkshop or call 530-621-5502.

Sponsored by: UC Cooperative Extension - Central Sierra, Natural Resources Conservation Service

For more information: Contact Scott Oneto (209) 223-6834 soneto@ucanr.edu



Should you need assistance or require special accommodations for any of our educational programs, please contact us at 530-621-5502. The University of California working in cooperation with County Government and the United States Department of Agriculture.

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Electra Road



Electra Road



Electra Road



Electra Road



Electra Road



Ponderosa Way



Ponderosa Way



Ponderosa Way



Ponderosa Way



Ponderosa Way



Ponderosa Way



Drought Operations

Water Operations Department

October 13, 2015

Water Supply Briefing



Ernst Schuetz

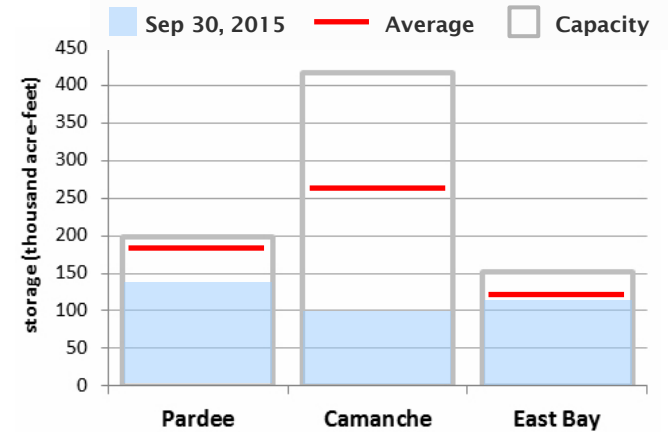
- Current Water Supply
- State Water Supply
- Mokelumne Operation
- Drought Operations
- Future Water Supply

Current Water Supply

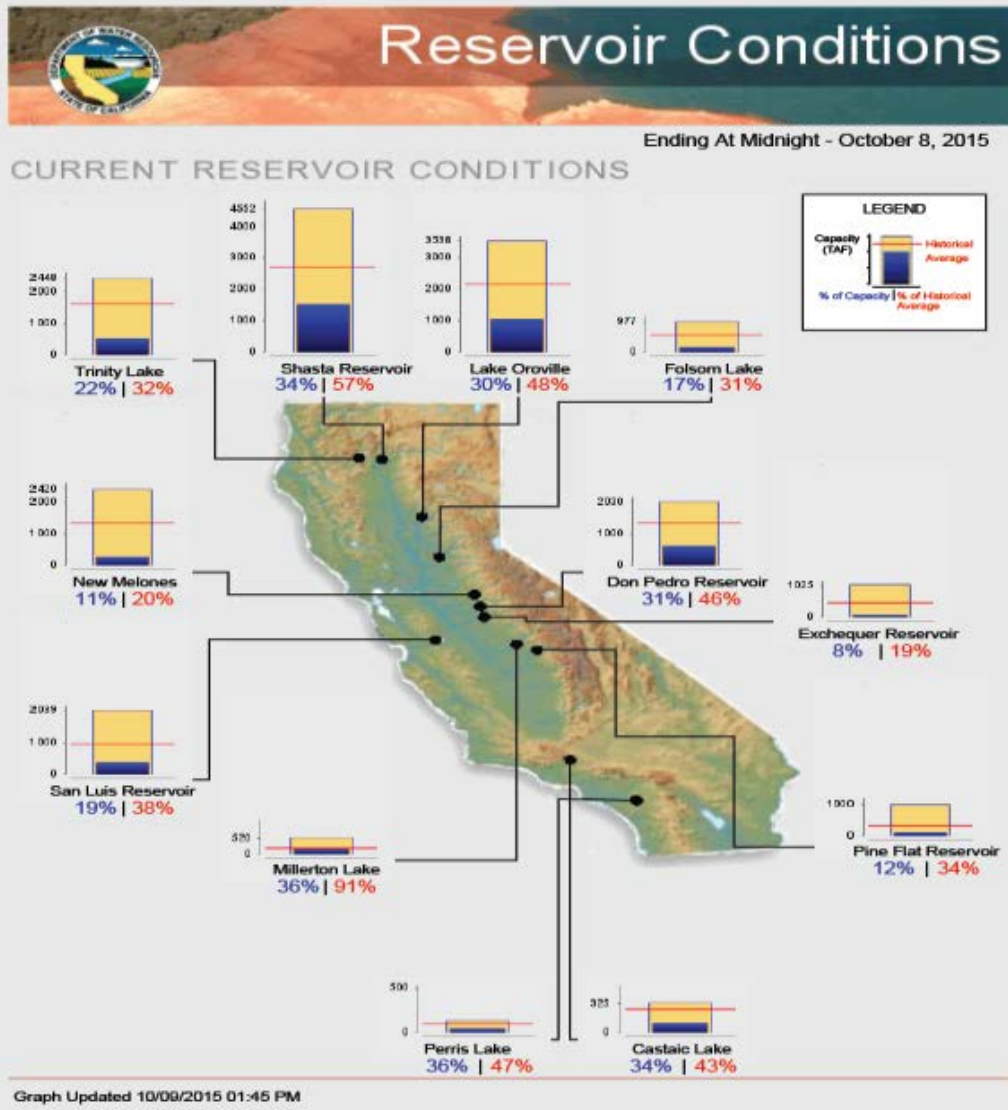
Reservoir Storage



Total System Storage
355,000 acre-feet
(62% of avg, 46% of capacity)



Current Water Supply California Storage



WY15 Drought Operations

Drought Operations Constraints



- Operate water system to meet competing priorities
 - Manage water system for water supply
 - Manage water system to comply with Joint Settlement Agreement requirements for cold water management
 - Manage reservoirs for water quality
- Taste and Odor Challenges
 - Seasonal algae blooms in terminal reservoirs
 - Significant change in volume in Pardee Reservoir
- Facility issues
 - Reverse flows in the Sacramento River
 - Maintenance and repairs

Mokelumne Operation

Mokelumne River Curtailment & Cold Water

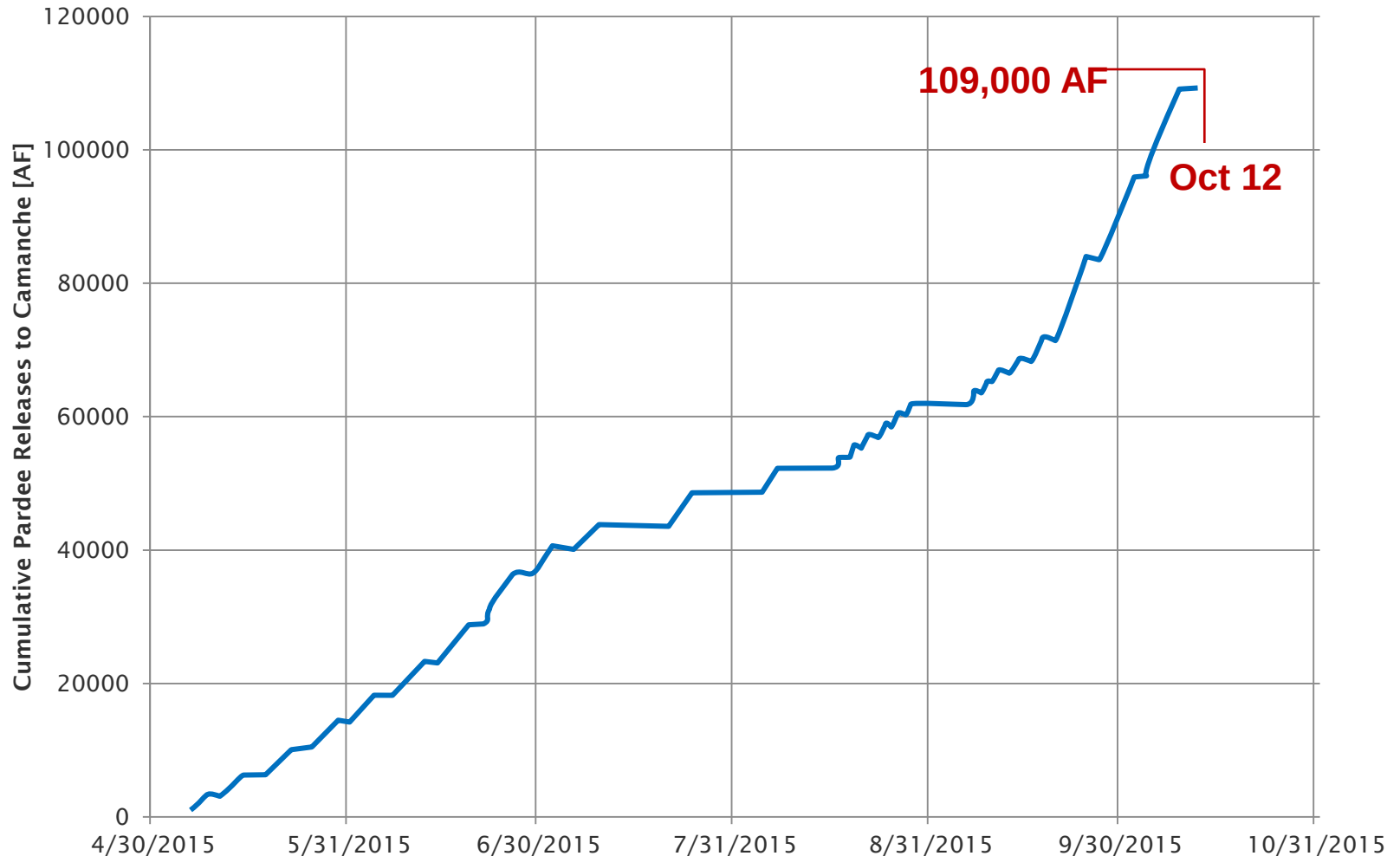


- State Water Resources Control Board curtailment of post-1914 appropriative rights led to 24,000 TAF additional release
- JSA requirement to maintain 28 TAF of 16.4° C leads to 60 TAF release from Pardee to Camanche in September and October



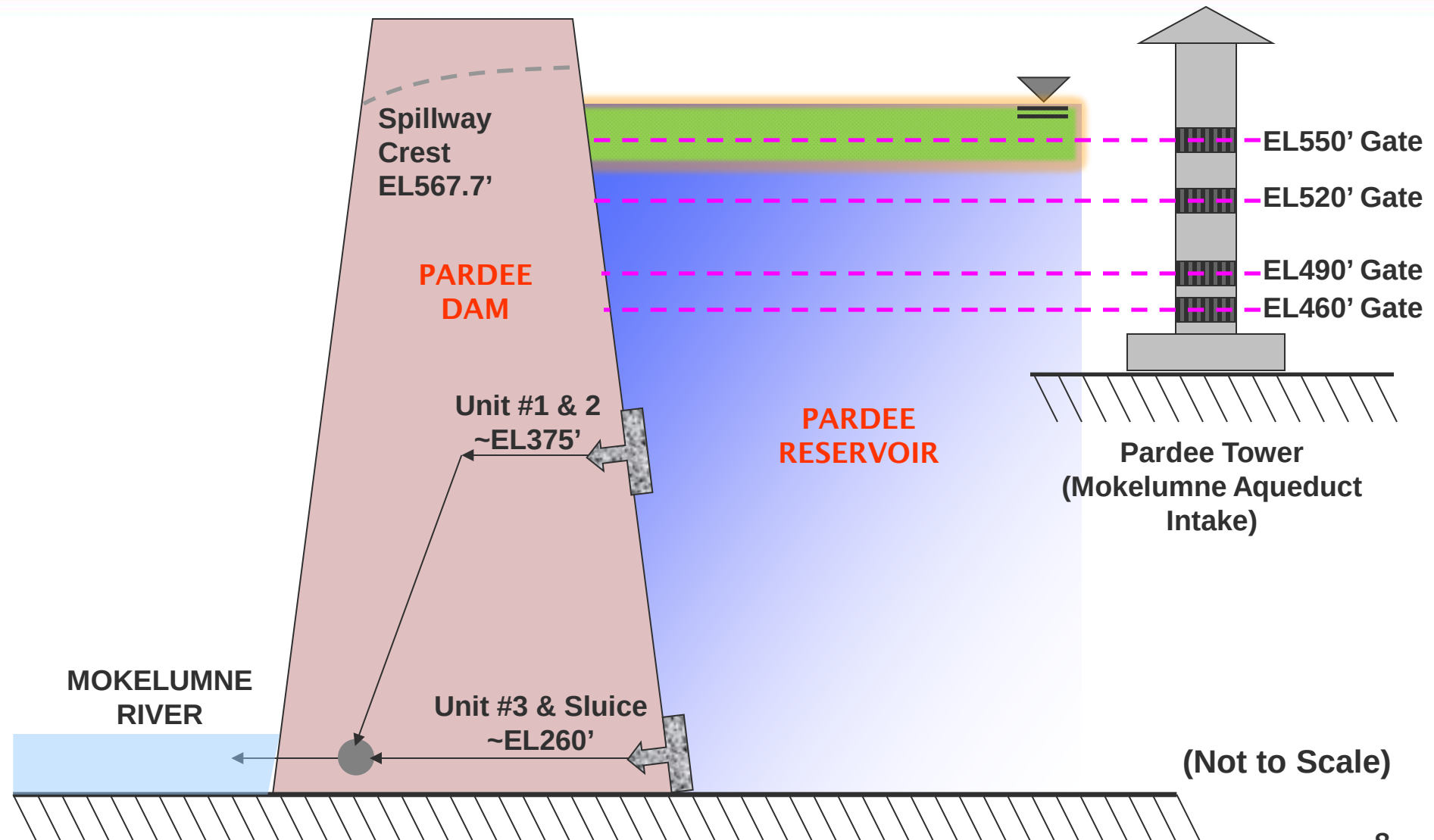
Mokelumne Operation

Mokelumne Cold Water Management



Mokelumne Operation

Pardee Reservoir Schematic Cross-Section

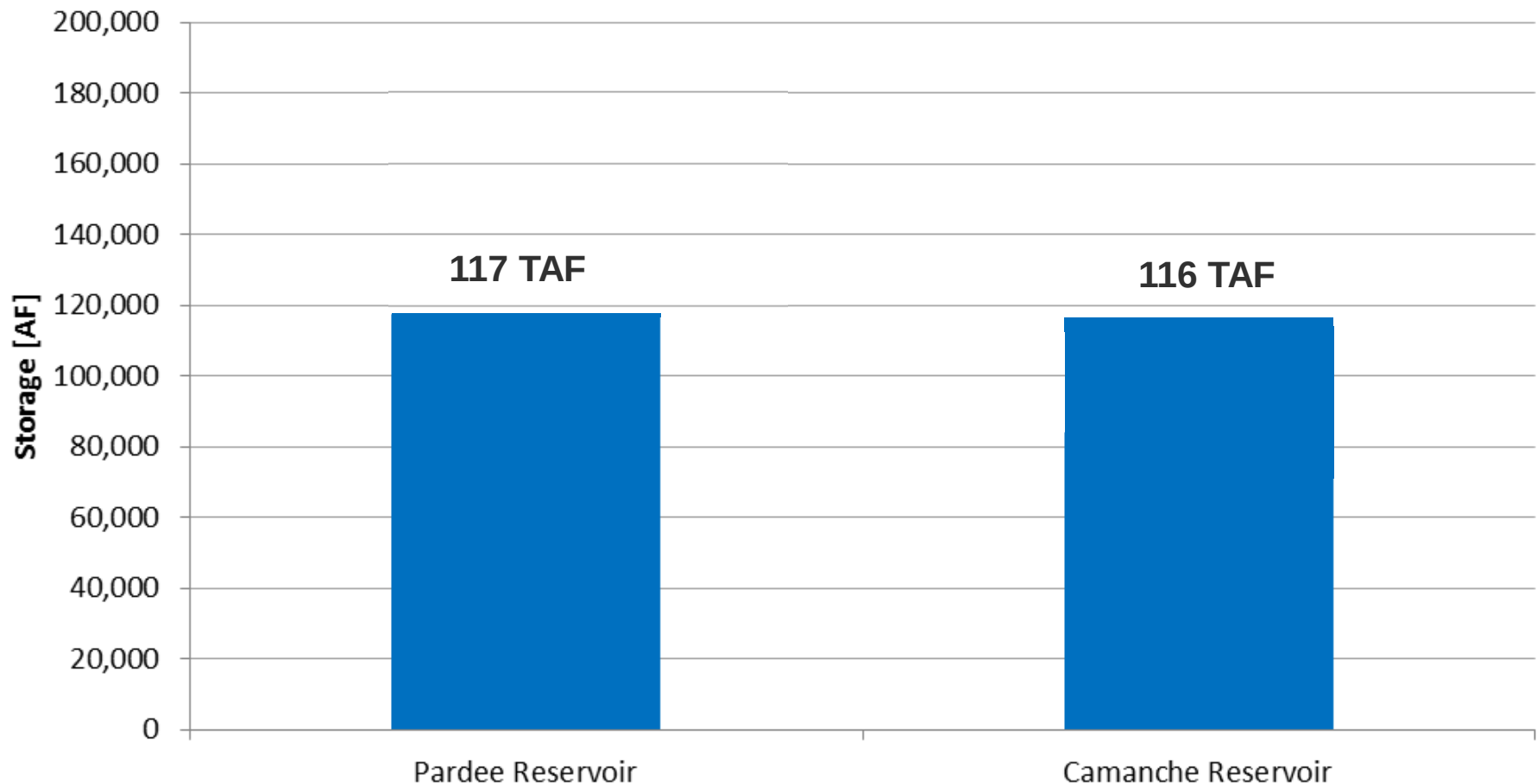


Pardee and Camanche

Cold Water Transfer



October 31, 2015



Drought Operations Plan

WY15 Drought Actions



CONSERVATION



FREEPORT

RECYCLING



INTERTIES

WY15&16 Drought Operations

Supplemental Supply – Transmission

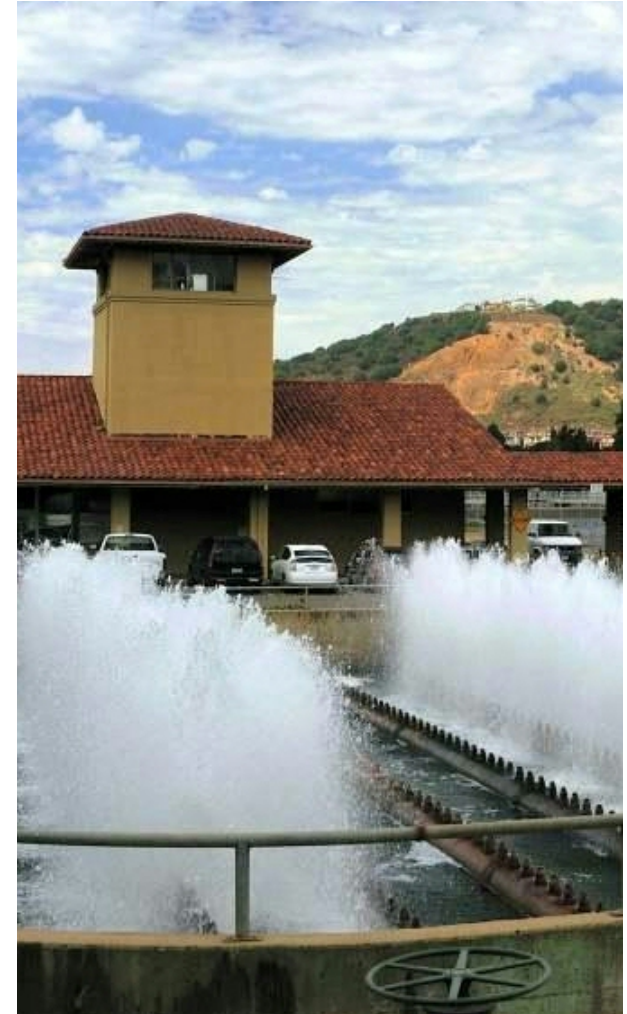


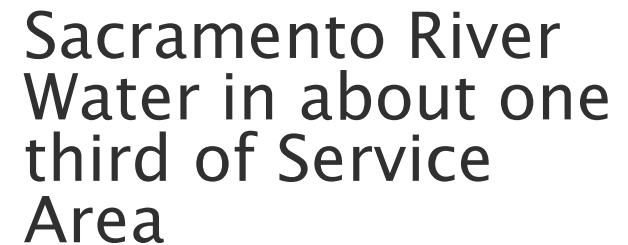
Supplemental Supply

Treatment & Distribution



- Deliver water to San Pablo and USL Reservoirs
- Maximize Sobrante and USL Water Treatment Plant production
- Meet all drinking water standards





- 13

Supplemental Supply

Freeport Regional Water Project



- Coordinated operation
 - Sacramento County Water Agency
 - U.S. Bureau of Reclamation
- 90 million gallons per day
- Delivered ~40 TAF of supplemental supply in WY15



Supplemental Supply

CVP & Transfer Water Supplies



	Supply	Estimated Quantity (AF)	Total Cumulative Quantity (AF)
WY2015	1. CVP Contract – 25% Allocation	33,250	33,250
	2. Placer County Water Agency Transfer	8,600	41,850
WY2016	3. Placer County Water Agency Transfer	2,800	44,650
	4. Glenn-Colusa Irrigation District Transfer	0	44,650
	5. Sycamore Mutual Water Company Transfer	4,500	49,150
	6. Reclamation District 1004 Transfer	8,800	57,950

Drought Operations Plan

Drought Stages



Stage	0	1	2	3	4
Demand Reduction		Voluntary 0-15%	Voluntary 0-15%	Mandatory up to 15%	Mandatory ≥15%
Supplemental Supplies			Up to 35,000 acre feet	35,000-65,000 acre feet	> 65,000 acre feet
Rates and Charges	Normal rates	Normal rates	Normal rates + 8% drought surcharge	Normal rates + 20% drought surcharge supersaver recognition* excessive use penalty*	Normal rates + 25% drought surcharge supersaver recognition* excessive use penalty*

*Supersaver recognition and excessive use penalty not subject to Prop 218 requirements.

Drought Operations Plan

Planning for 2016 and 2017

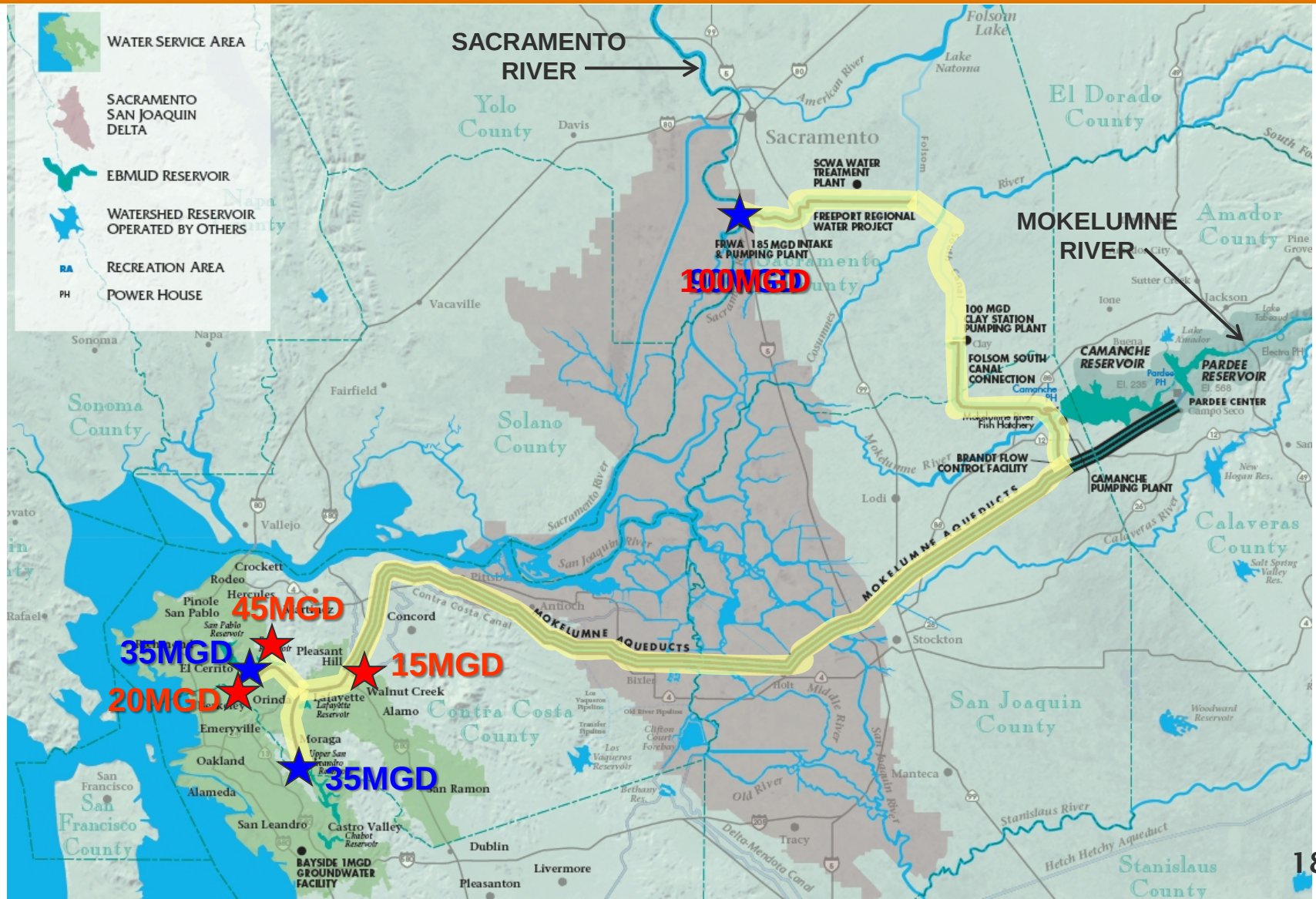


Stage 4 Drought

- Making system improvements to bring in more supplemental supplies from transfers (increase from 65 to 100 TAF)
- Identifying options for future water transfers
- Accelerating improvements to reduce taste and odor issues
- Working collaboratively with the Bureau of Reclamation and our partners

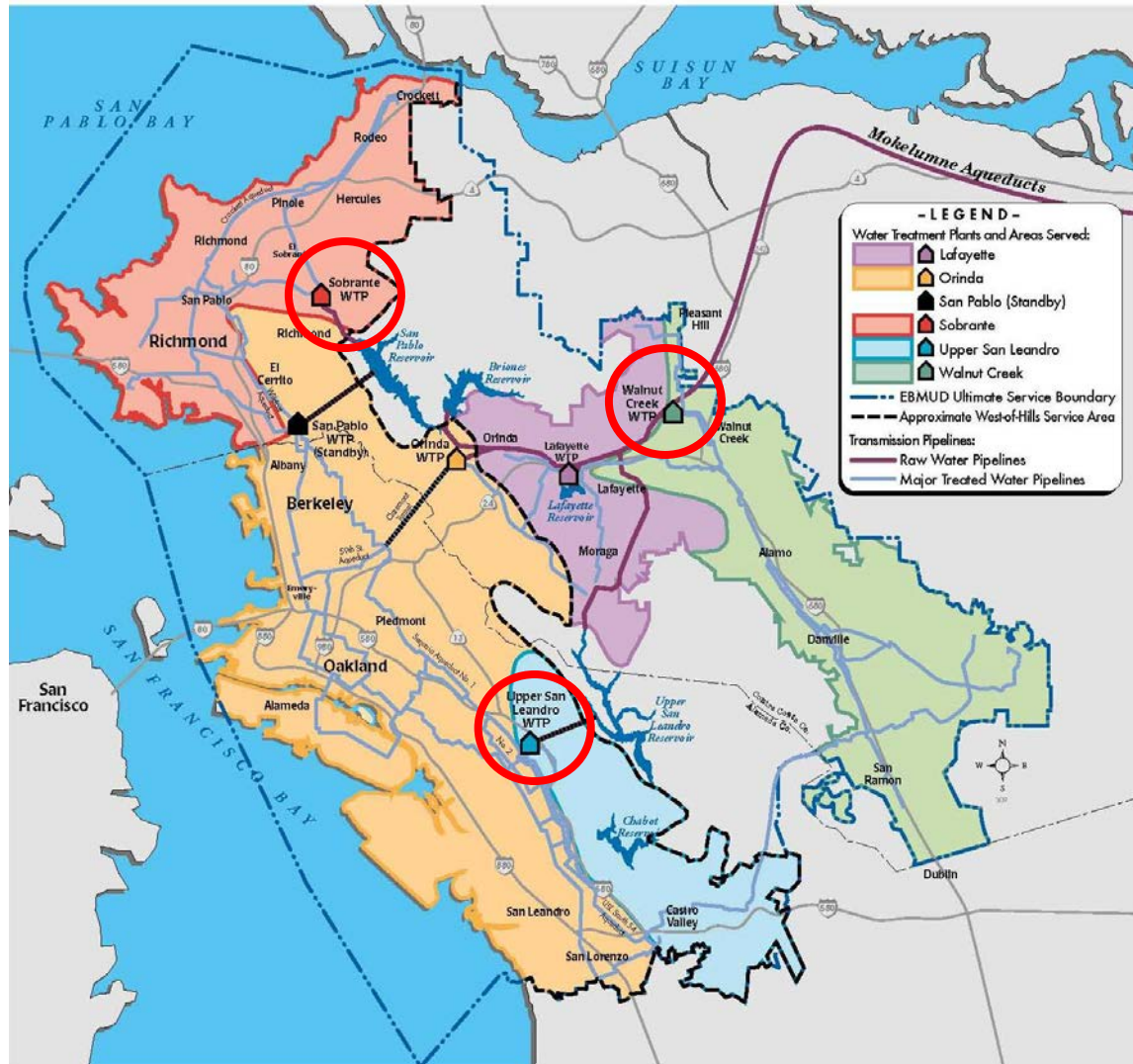
Supplemental Supply

Rates of Diversion and Treatment



Service Area

Current Configuration

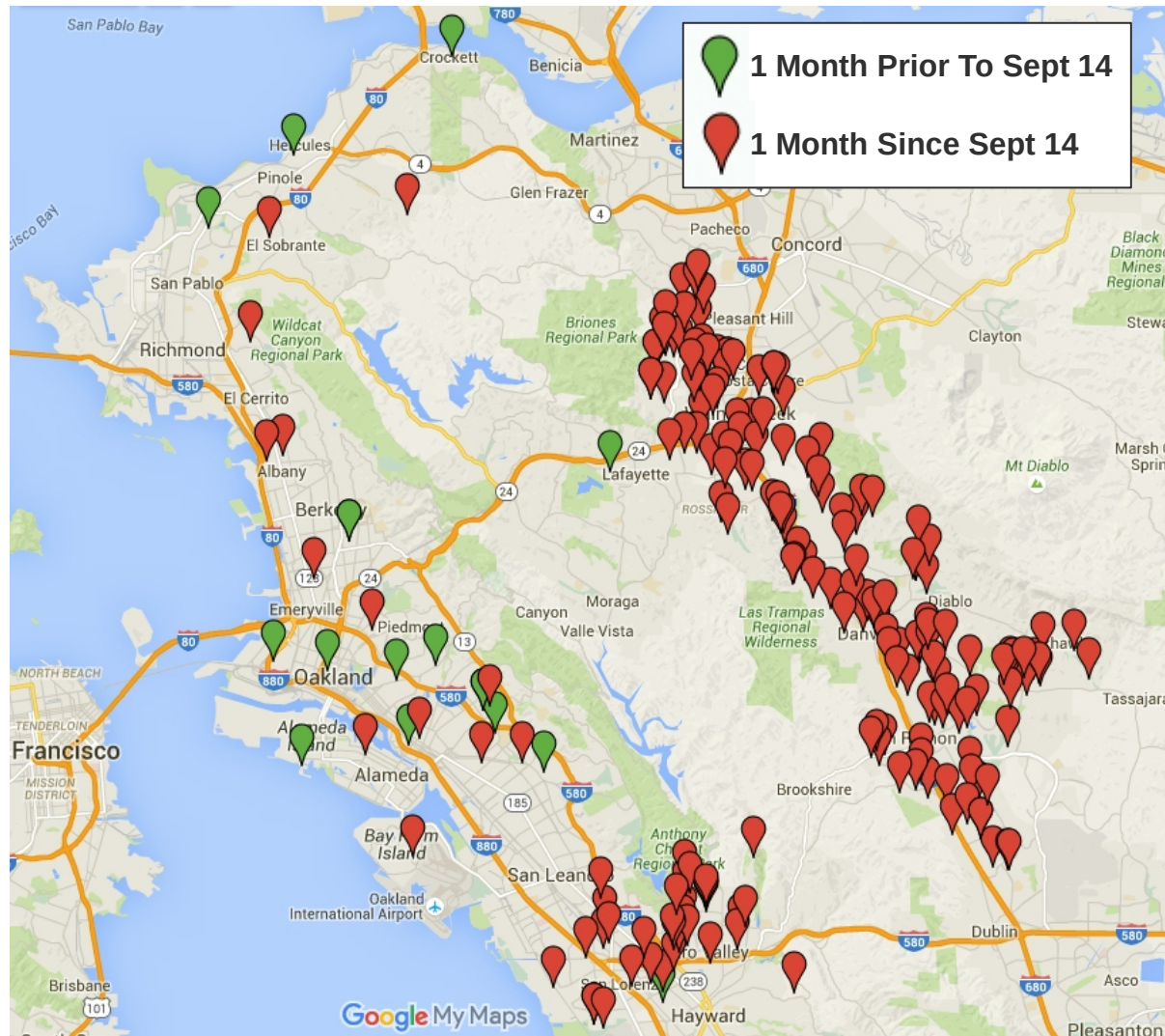


Sacramento River
Water in over half
of Service Area

- Sobrante WTP
- Upper San Leandro WTP
- Walnut Creek WTP

Service Area

Taste and Smell – Consumer Calls



Call Increase

- Pleasant Hill
- Lafayette
- Walnut Creek
- Alamo
- Danville
- San Ramon
- Castro Valley

Service Area



Taste and Smell – Consumer Inquiries Since Sept 14

Taste & Smell Webpage

- ~3,400 unique page views
- ~200 views per day

Call Center Calls

- ~600 calls
- ~20 calls per day
- 150-200 calls per day considered significant

Emails

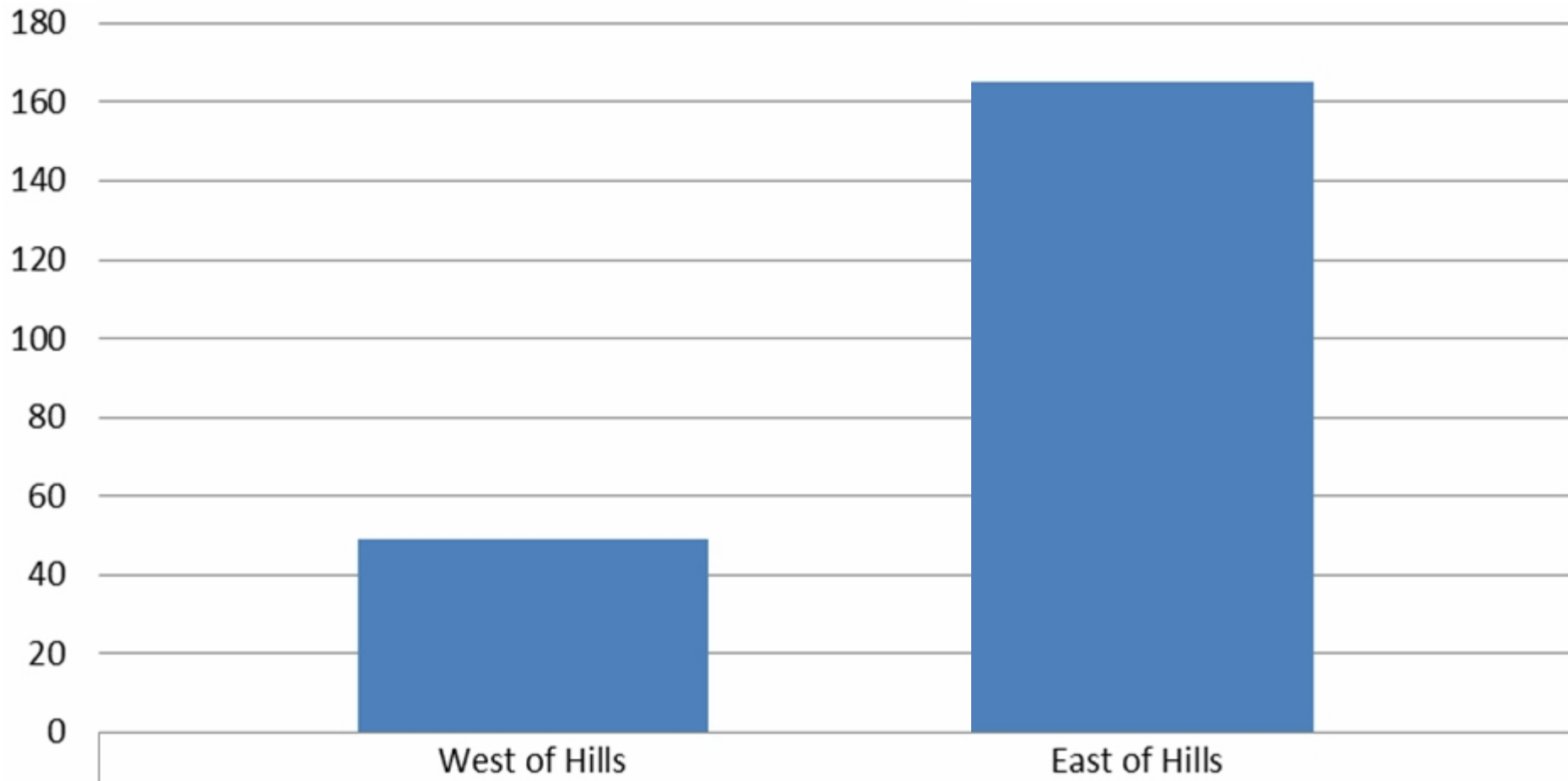
- 125 taste and smell related emails through “Contact Us”

Water Quality Staff

- ~210 follow up responses to consumers

Service Area

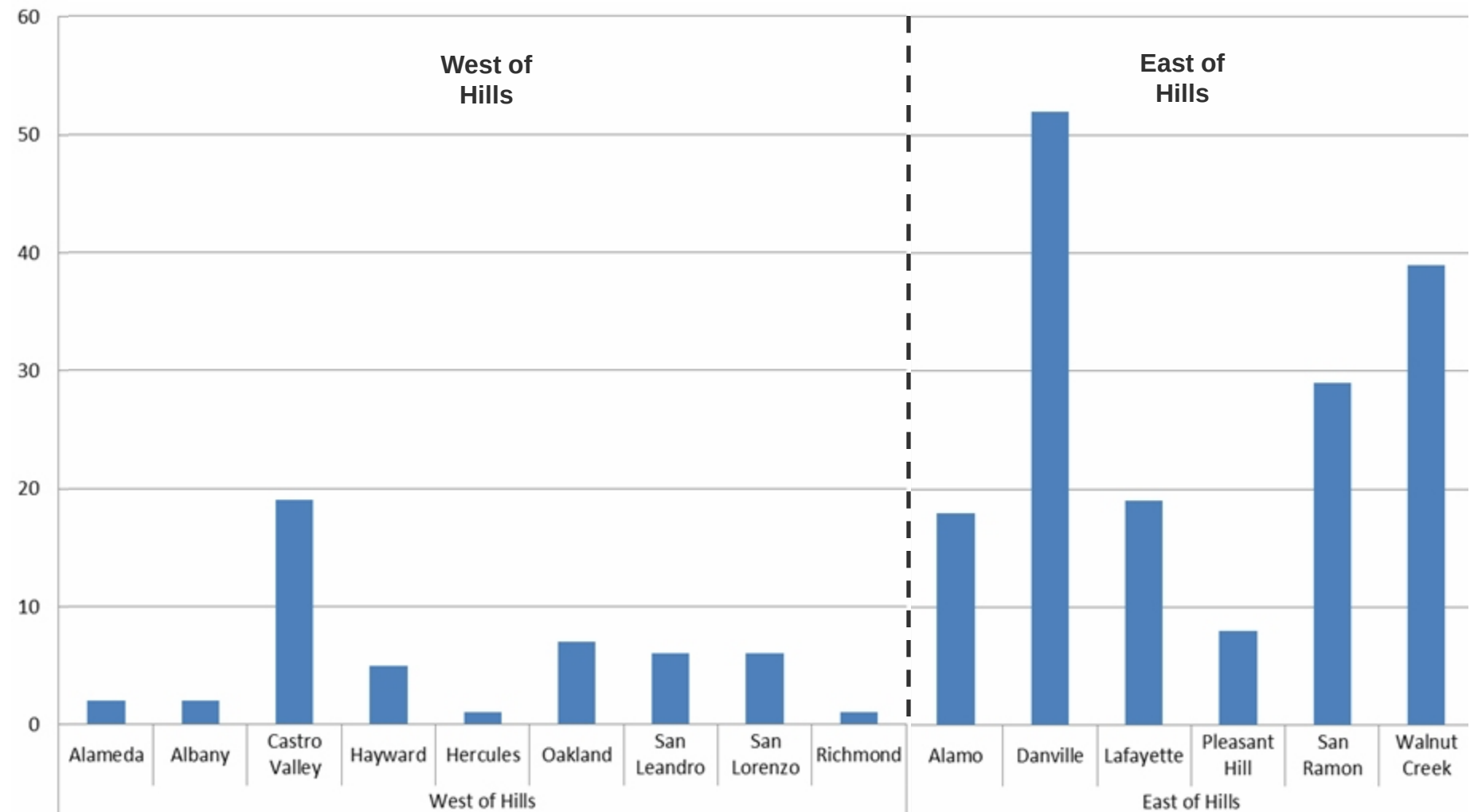
Taste and Smell – Calls East vs West Since Sept 14



Service Area



Taste and Smell – Calls By City Since Sept 14



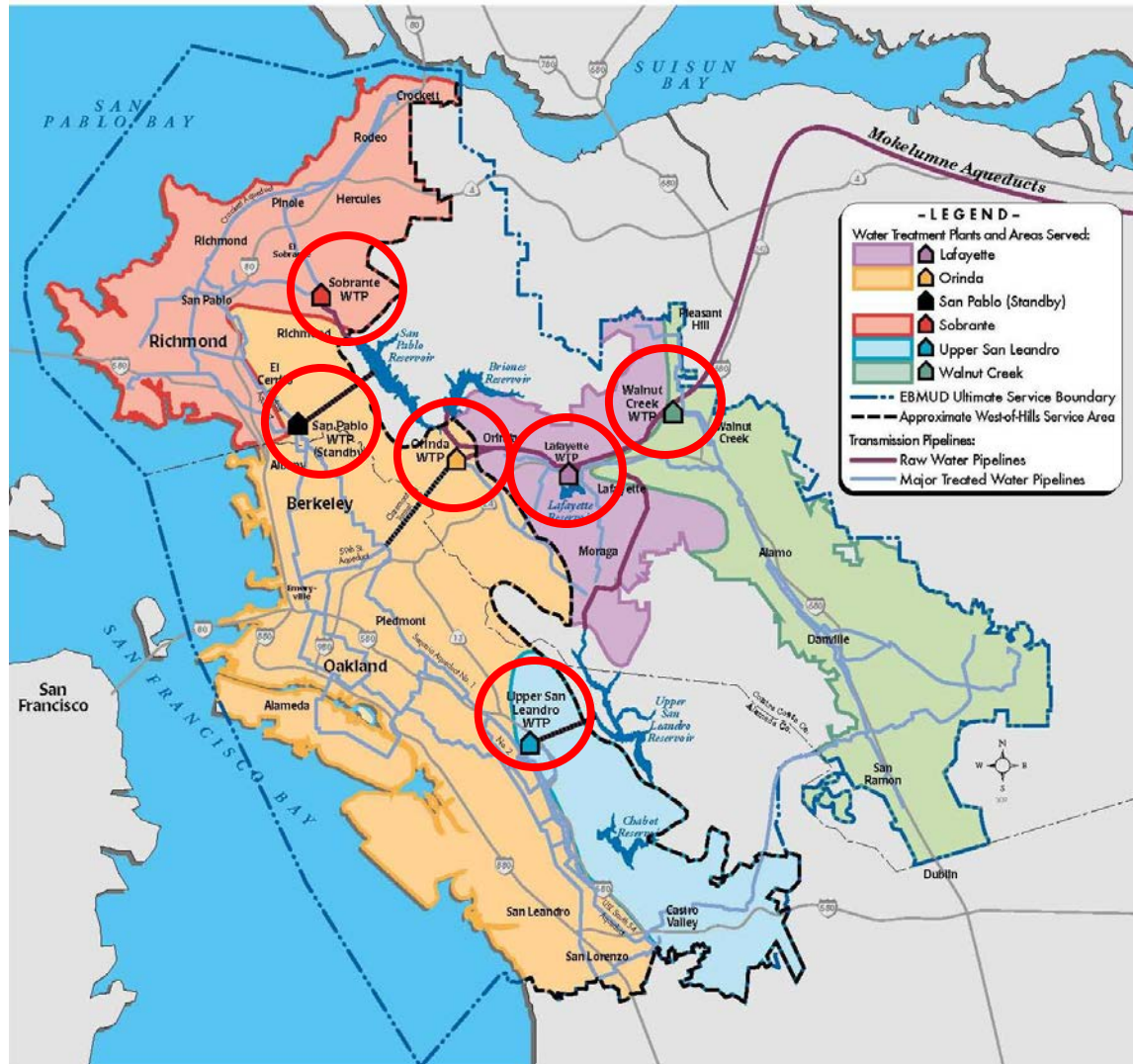
Service Area

Configuration in Typical Winter (Non-Drought)



Service Area

Configuration in Winter 2015-2016



Sacramento River Water throughout Service Area

- Sobrante WTP
- Upper San Leandro WTP
- Walnut Creek WTP
- San Pablo WTP
- Orinda WTP
- Lafayette WTP

San Pablo WTP Start-Up



- Constructed in 1921
- Last operated in 2007 (Claremont Tunnel)
- Provides 20-25 MGD of additional capacity

San Pablo WTP Improvements – Wash Water Reclaim System



- Treats filter wash water that would otherwise go to sewer
- Conserves up to 1 MGD
- Meets drinking water regulations
- Constructed in 8-weeks



San Pablo WTP Improvements & Start-Up Efforts



- Rehabilitate:
 - Pipes, valves, chemical, process, electrical and controls systems
- Improve reclaim system
- Reconfigure process controls



San Pablo WTP Start-up



- Operations is preparing the WTP for start-up
- Start to treat water:
 - November
- Use 8 TAF more FSCC water



Supplemental Supply

Treatment Constraints

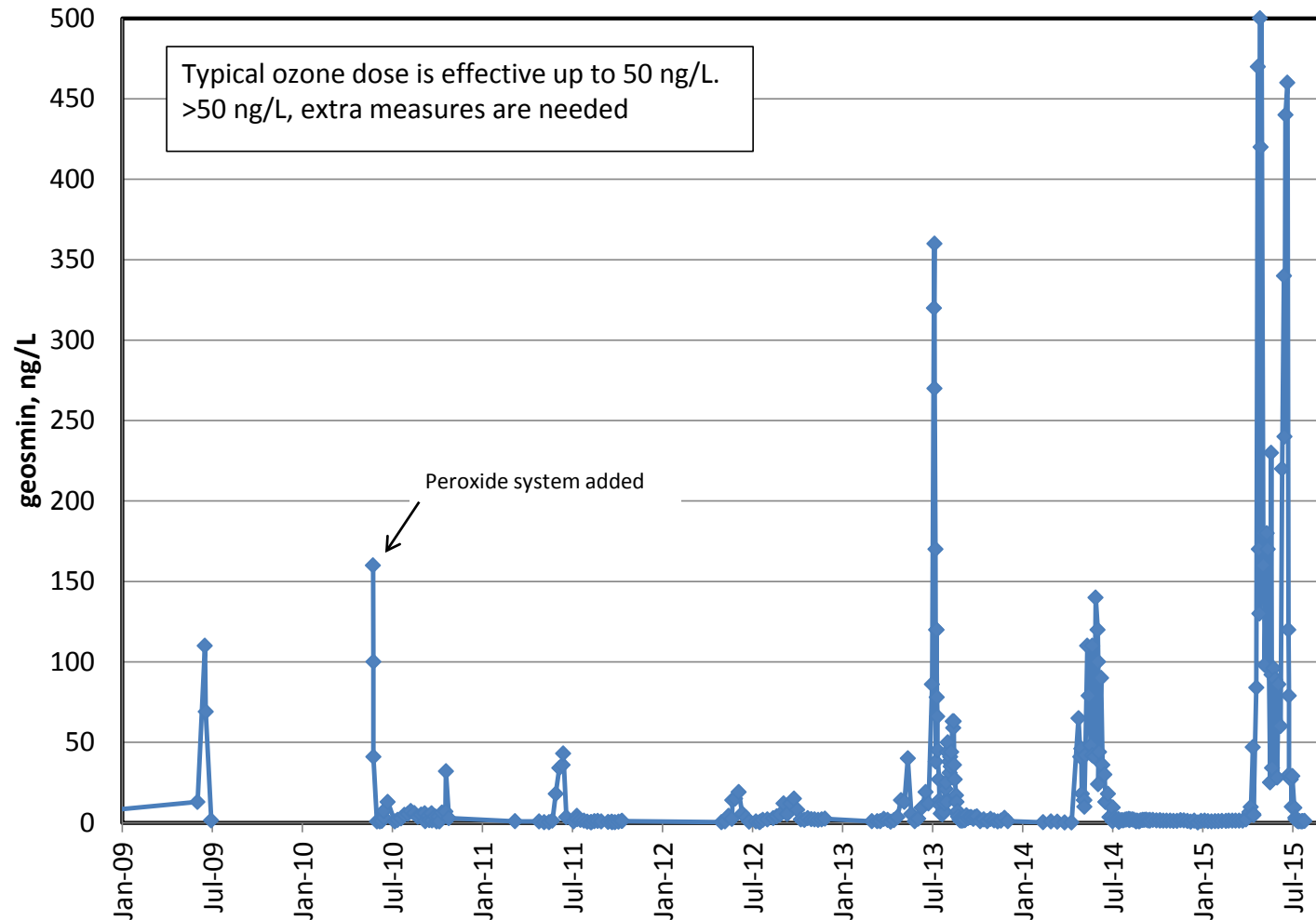


- Taste and smell events happen more frequently and are more severe during drought
- Warm weather and poor water quality can lead to algal blooms
- Most of the time, the ozone systems at the treatment plants can handle it
- Increased geosmin levels require reductions in water treatment plant production

Supplemental Supply Treatment & Distribution



Raw Water Geosmin, Sobrante Water Treatment Plant



Supplemental Supply

Taste and Smell Management



Short-term

- Ongoing monitoring program
- Adjust chemical doses at plants
- Change inlet gates
- Decrease plant production

Long-term

- Upgrading the ozone systems
- Installing Hypolimnetic Oxygenation System in San Pablo Reservoir

Supplemental Supply

Taste and Smell Management - Continued



As water levels get lower, options become limited

- Algae live near the surface (sunlight)
- Inlet gate changes are an option when water levels are high enough
- Two inlet gates are needed to lower Pardee Reservoir elevation
- No ozone at the Mokelumne Aqueduct treatment plants (Walnut Creek, Lafayette, Orinda)

Supplemental Supply

Sobrante WTP - Improvements



Project	Cost	Complete	Reason
Replace Ozone System	\$12M	Mid- 2018	- System Upgrade - Maintain Higher Plant Production
San Pablo Res. Hypolimnetic Oxygenation System (HOS)	\$3.7M	Mid- 2018	- Taste and Odor Control - Maintain Higher Plant Production

Supplemental Supply

Upper San Leandro WTP



Project	Cost	Complete	Reason
Replace Trac-Vac Solids Removal System	\$2.7M	Early-2017	- System Upgrade - Maintain Higher Plant Production
Replace Ozone System	\$12M	Mid-2018	- System Upgrade - Maintain Higher Plant Production
Solids Handling Improvements	\$2.0M	Early-2018	- Reduce water waste

Supplemental Supply

Rate of Diversion Improvements



Facility	Rate of Diversion		
	(MGD)	(TAF)	Date
Briones PP	45	8	Late Oct
Walnut Creek WTP	15 to 30	11	9/14
San Pablo WTP	20 to 25	14	11/3
Sobrante WTP	35	36	
USL WTP	35	36	
Total		105	



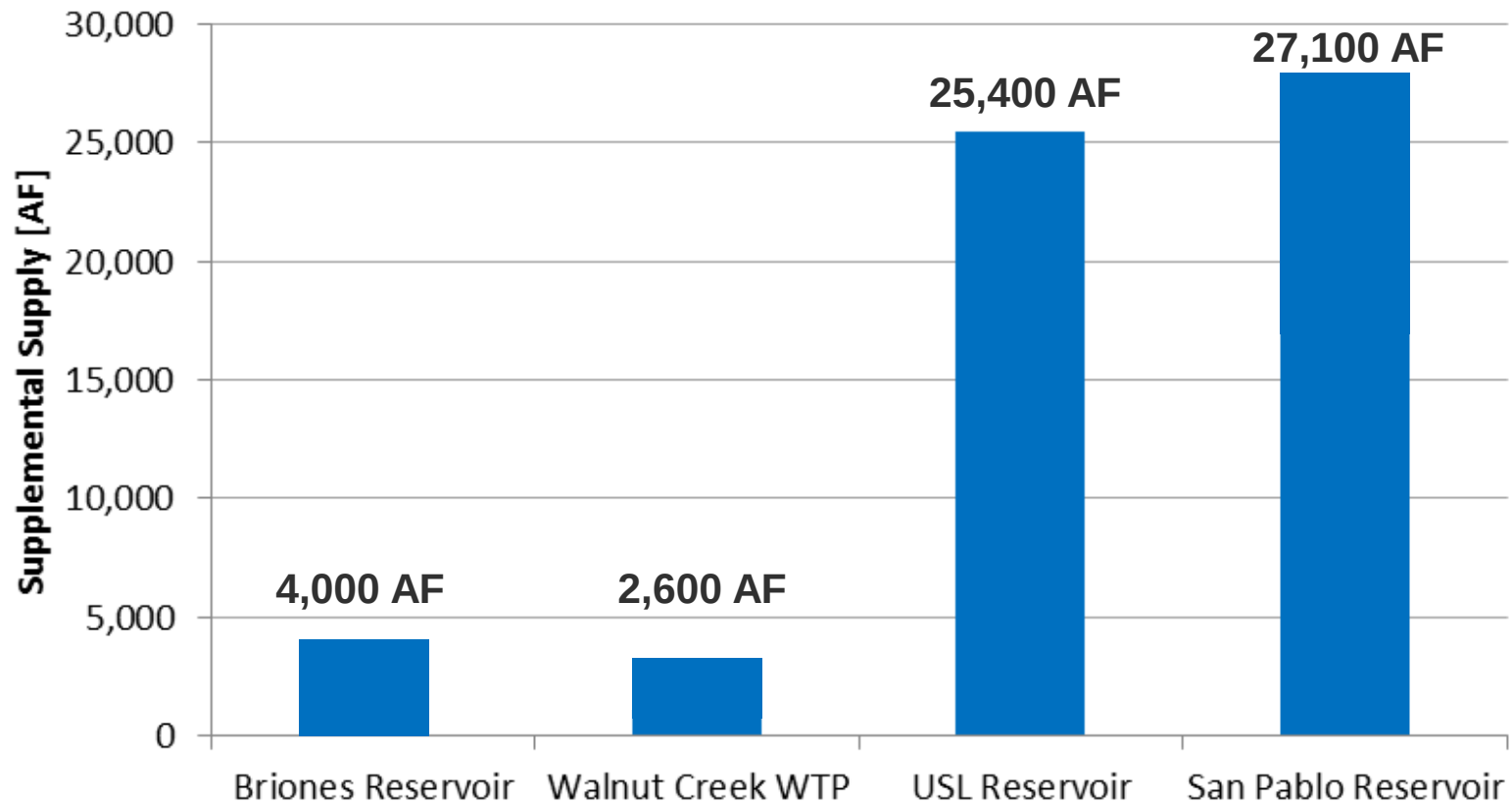
Supplemental Supply

CVP & Transfer Water Supplies to East Bay



December 2, 2015

Estimated Total = 59,000 AF

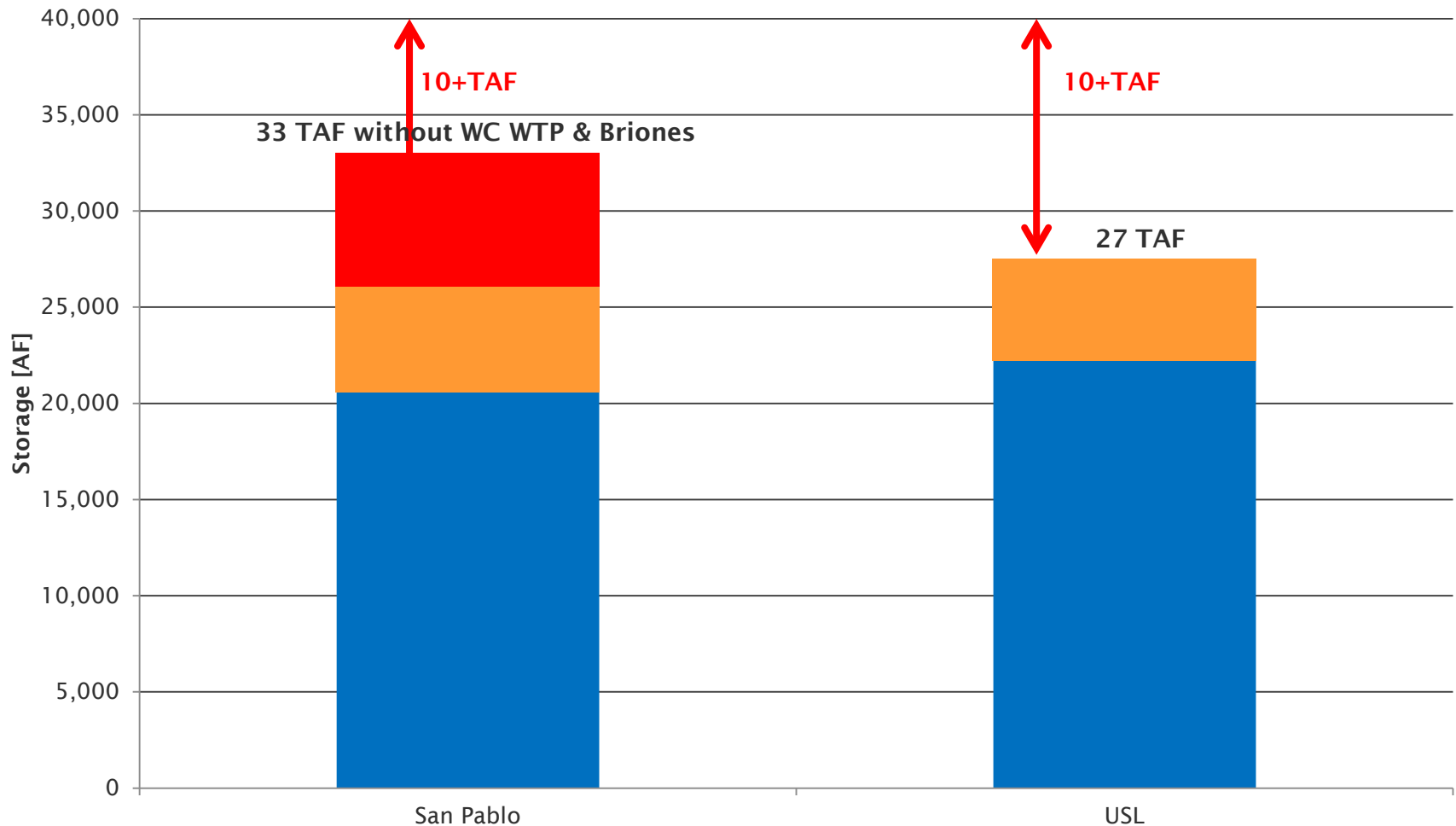


Supplemental Supply

Reservoir Storage and Space to Spill

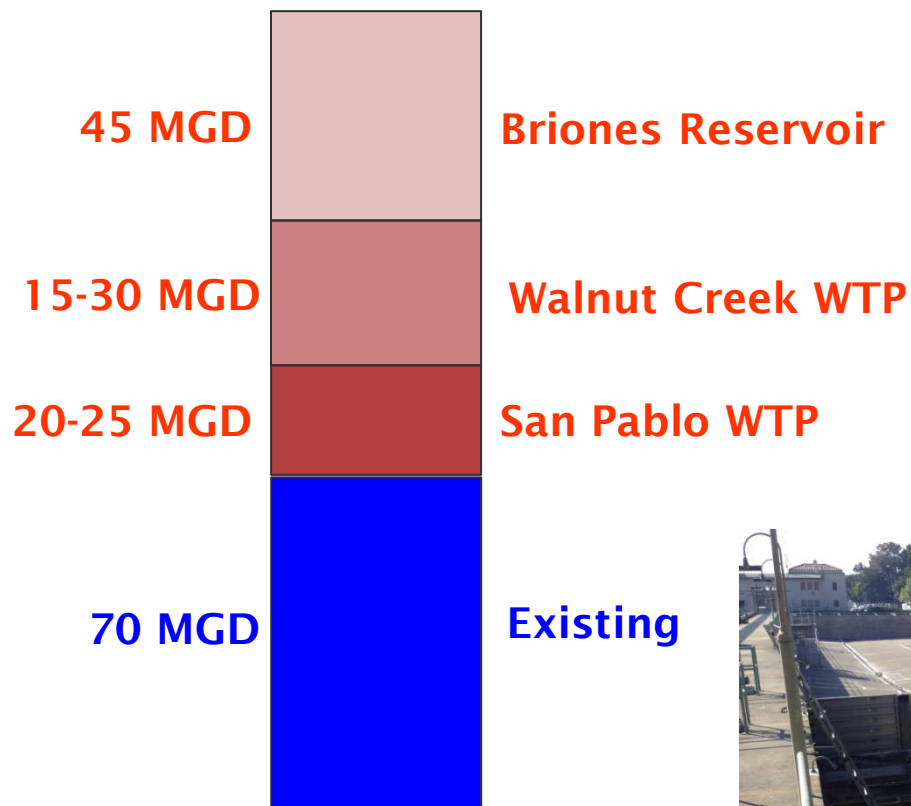


December 2, 2015



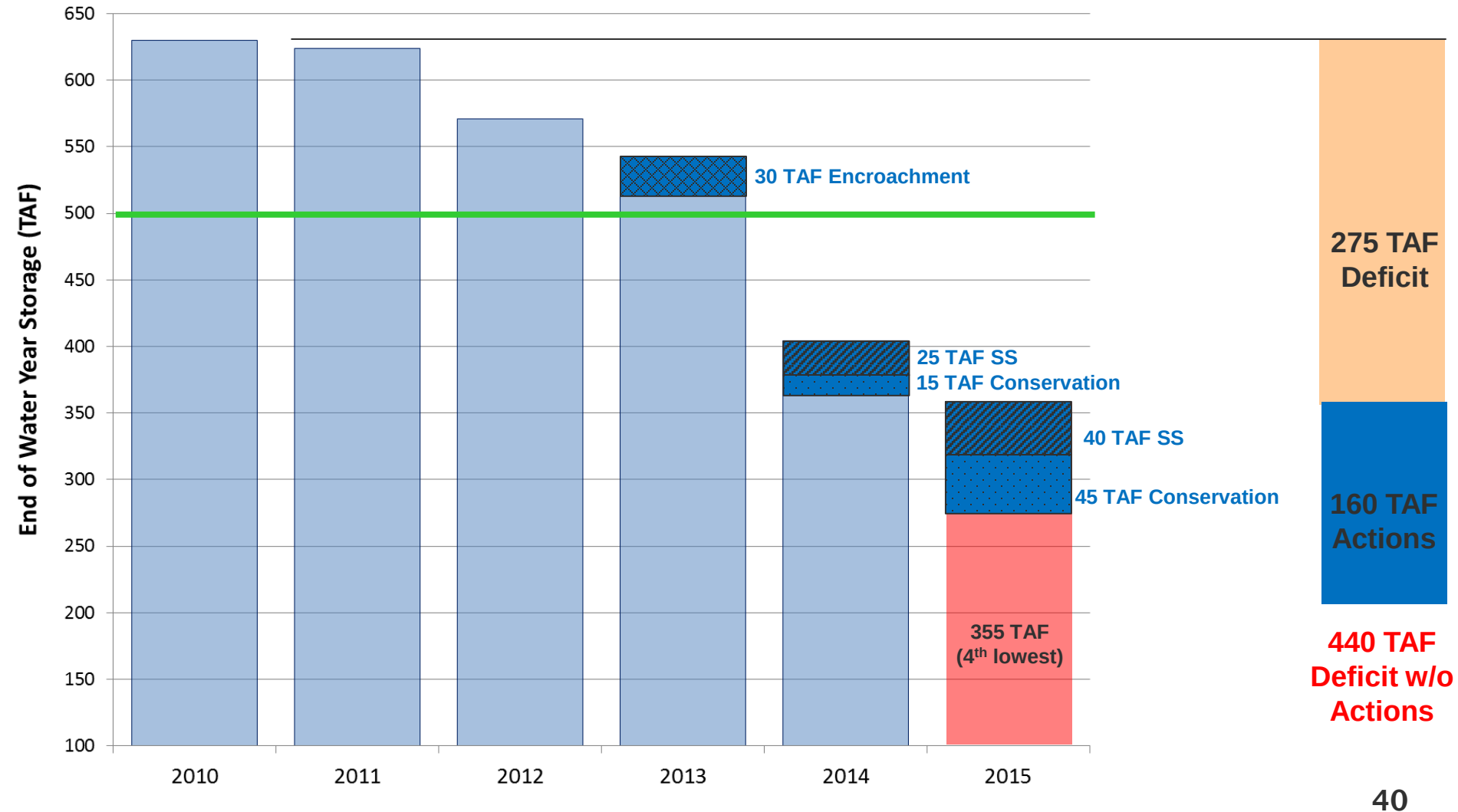
Supplemental Supply

Supplemental Supply Rate of Diversion Improvements



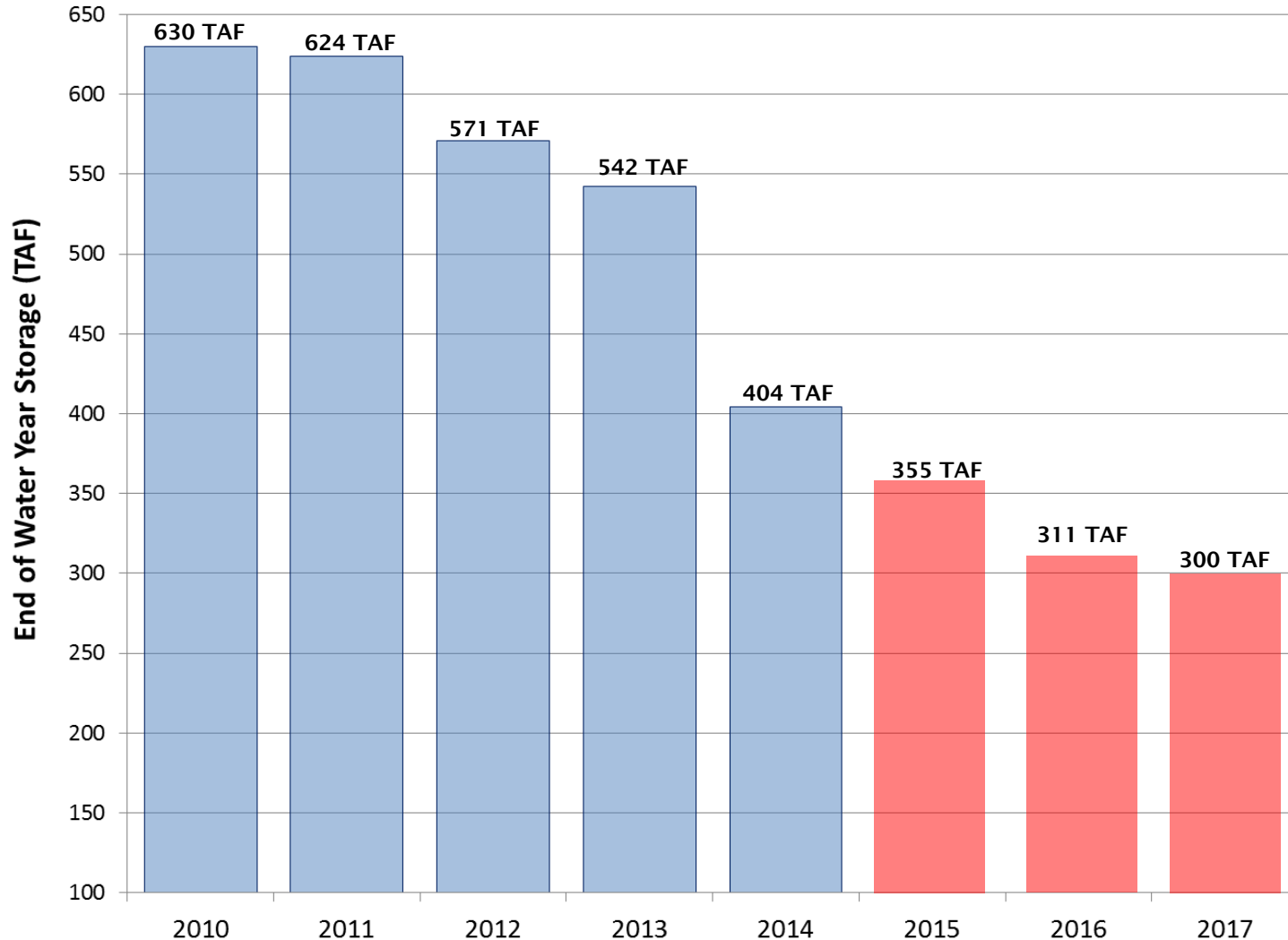
Current Water Supply

Decline End of September Storage



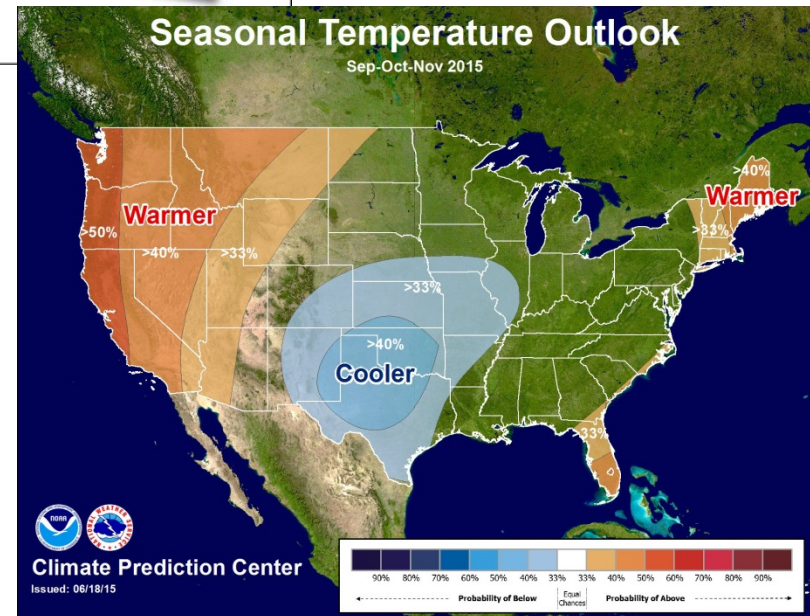
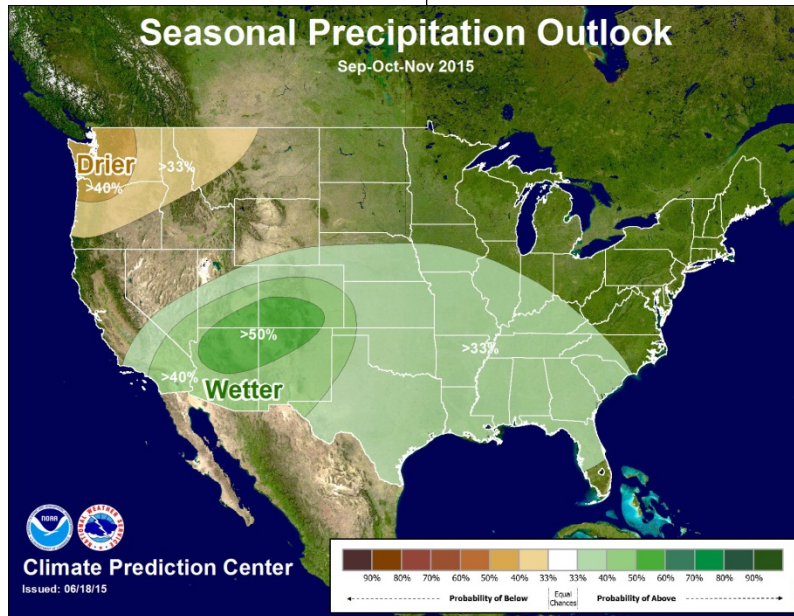
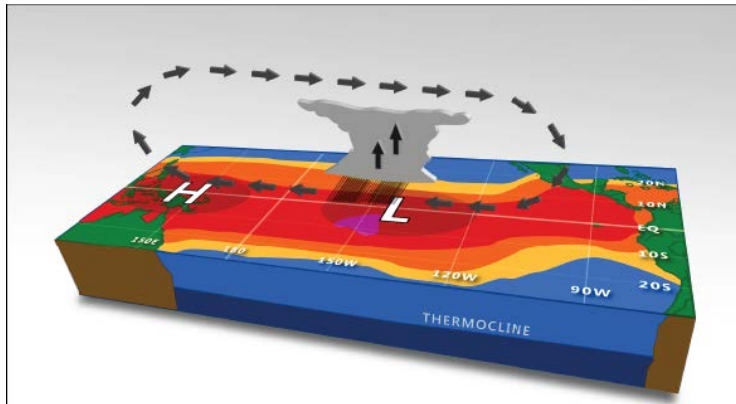
Future Water Supply

Total System Storage – as of September 30



Future Water Supply

Potential for El Nino



Looking Forward to a Snowy Winter in Water Year 2016!



Making Plans for a Dry 2016

