

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Drought Response Reduces Water Use by 30% for Sacramento Suburban Water District

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Water Conservation Supervisor



Sacramento Suburban Water District

District At a Glance

Area

36 sq. mi.

Number of Connections

45,391

Miles of Water Mains

735

Percent Metered

80%

Avg. Annual Demand

38,300 AF



Sacramento Suburban Water District Primary Water Source: Groundwater

North American River Sub-Basin

Shared interest with 14 other water agencies.



Sacramento Suburban Water District

Alternate Water Sources: Conjunctive Use

Folsom Lake

- When March – November unimpaired inflows into Folsom Lake reach 950,000 AF.
- Have access to 27,000 AF.
- SSWD did not divert water in 2014 or 2015.

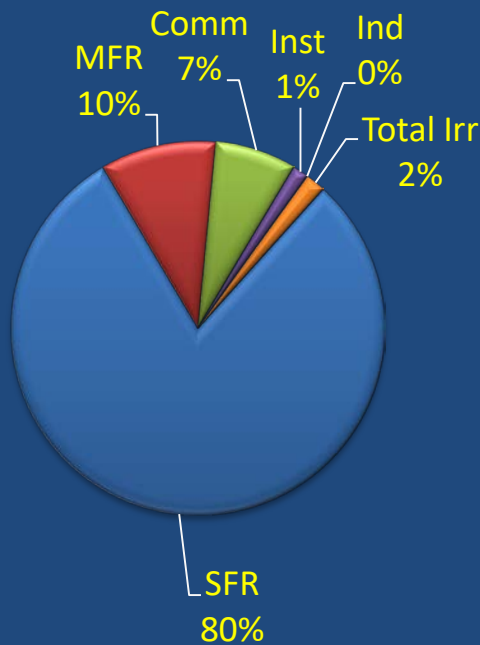
American River

- Access to 20 MGD based on outflows from Nimbus Dam

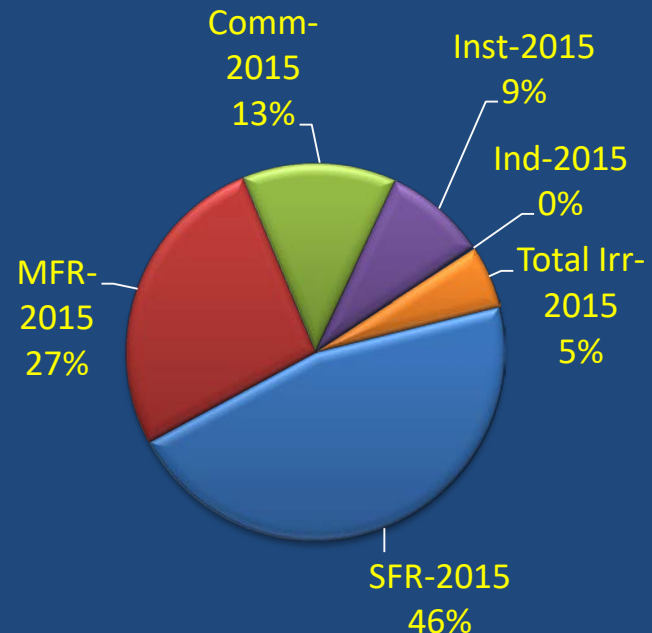


Sacramento Suburban Water District Customer Classes and Water Use

2015 Metered Connections



2015 Total Water Use by Customer Class

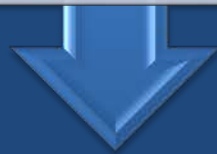


Single and Multi-Family Residential customers make up 90% of the customer base, and use +73% of the water consumed.

Pre-Drought Conservation Program

Budget

Approximately \$300K



Best Management Practices

Water Loss
• 16 mi/year

Meter Installations (AMI)

Public Outreach/Education



Residential, CII, Large Landscape

Water Audits

WaterSense Plumbing
Fixtures

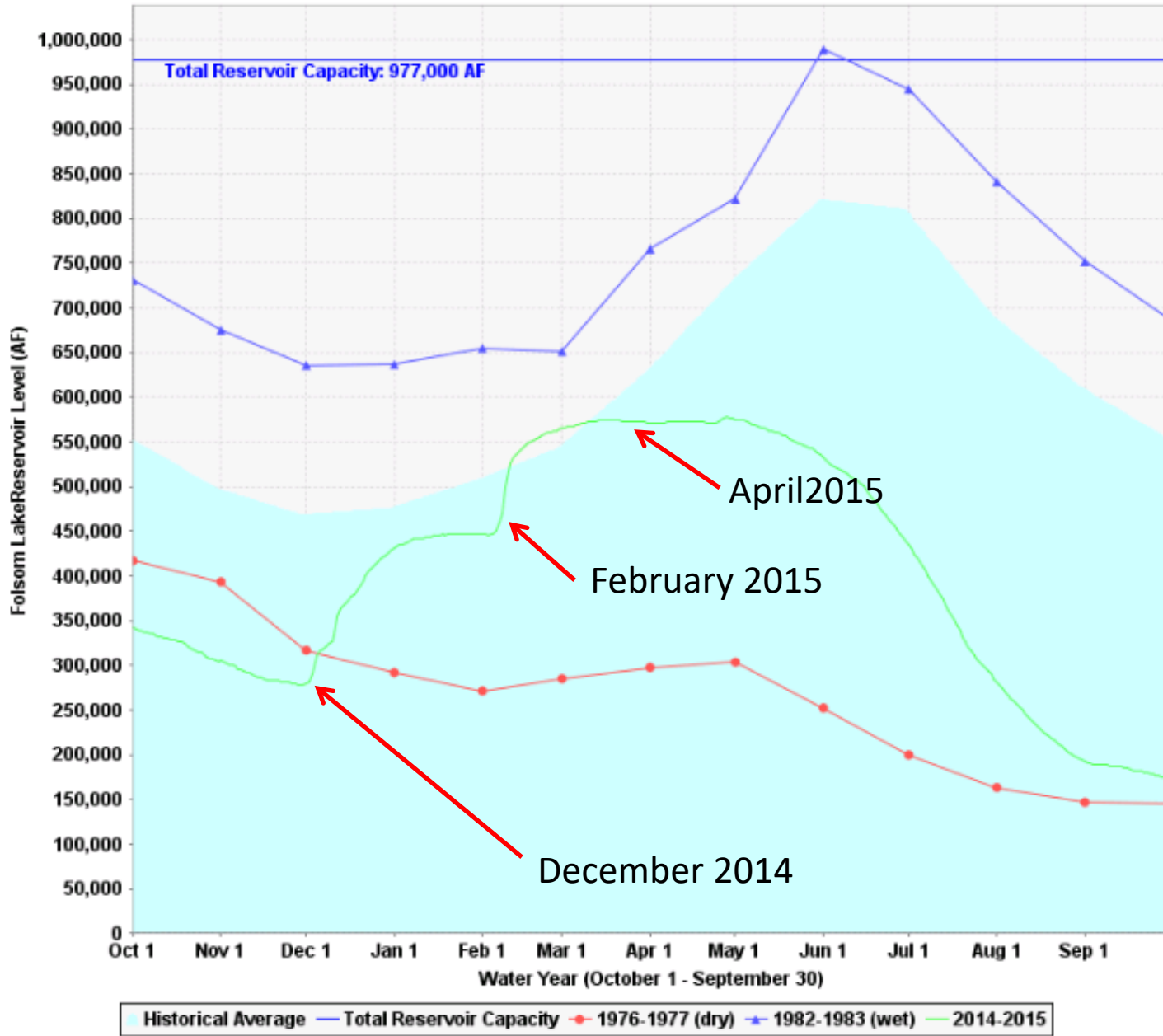
Rebates

• Grant funded

A dramatic landscape featuring a vast, cracked, and parched earth in the foreground, extending to a flat horizon. The sky above is filled with heavy, grey, and turbulent clouds, suggesting a storm or a period of intense drought. The overall mood is one of environmental crisis and desolation.

California DROUGHT

Folsom Lake Storage Levels



(Credit: CA DWR)

Worst April 1 Snowpack Results

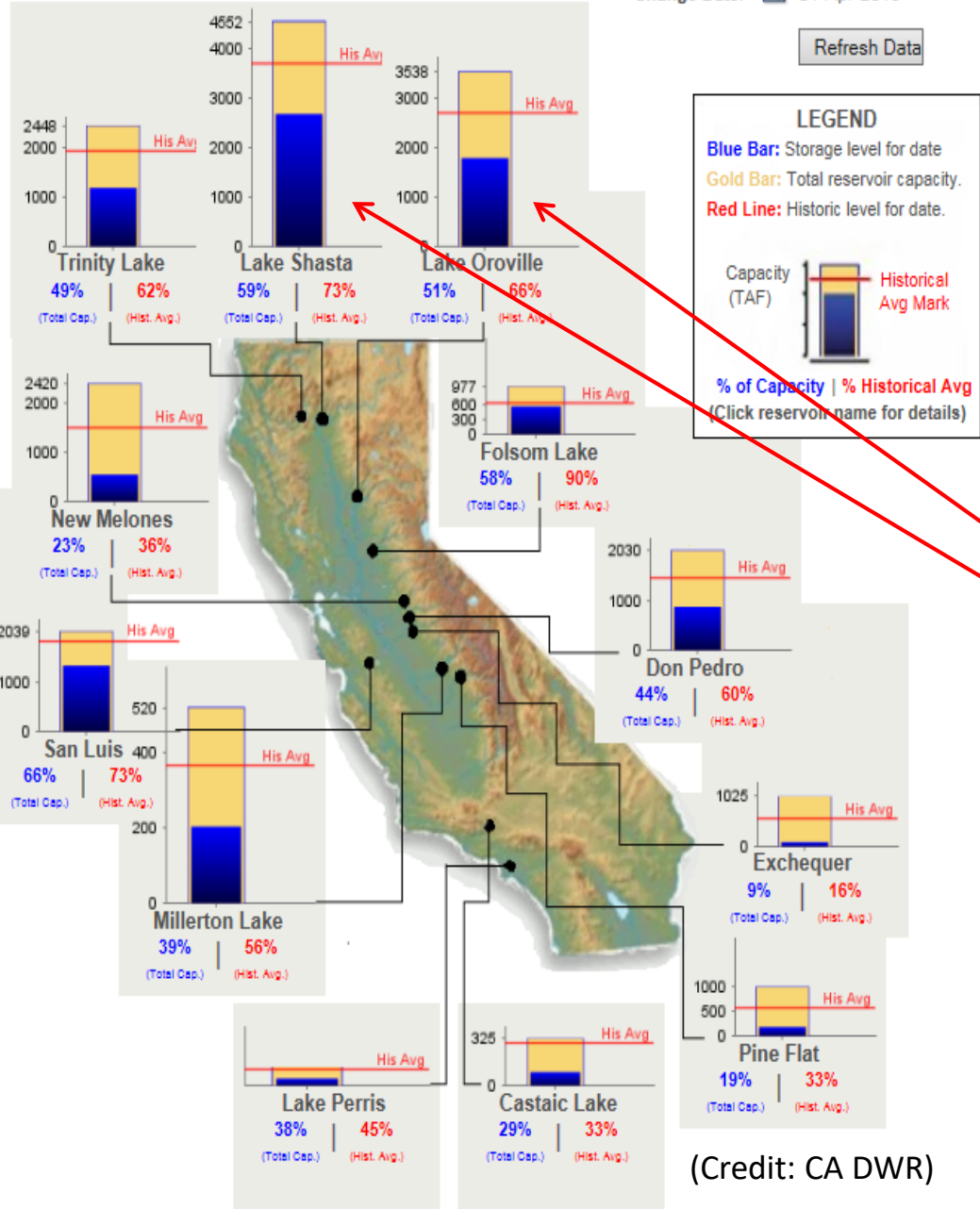
2015	5 percent
2014	25
1977	25
1988	29
1976	37
2007	39
2013	42
1963	45
1990	45
1994	52
2012	52

Until 2015 shattered the Record at only 20% of the previous all-time worst

Data as of Midnight: 01-Apr-2015

Change Date: 01-Apr-2015

Refresh Data



(Credit: CA DWR)

California Reservoir Storage April 1, 2015

Lake Oroville = 51%
Lake Shasta = 59%

Considerations
Urban Water Use
Ag Water Use
Delta Salinity
Winter run Chinook Salmon
& Steelhead runs

The State's Response

Governor
April 1, 2015
Reduce Urban Water
Use by 25% (1.2 MAF).

SWRCB

Water Contracts

State DWR

Use 2013 water use as a
base line

Set Reductions Tiers
from 8%-36%

Cut water allocations to
various water contracts
up to 0%

Provide Rebate Funding

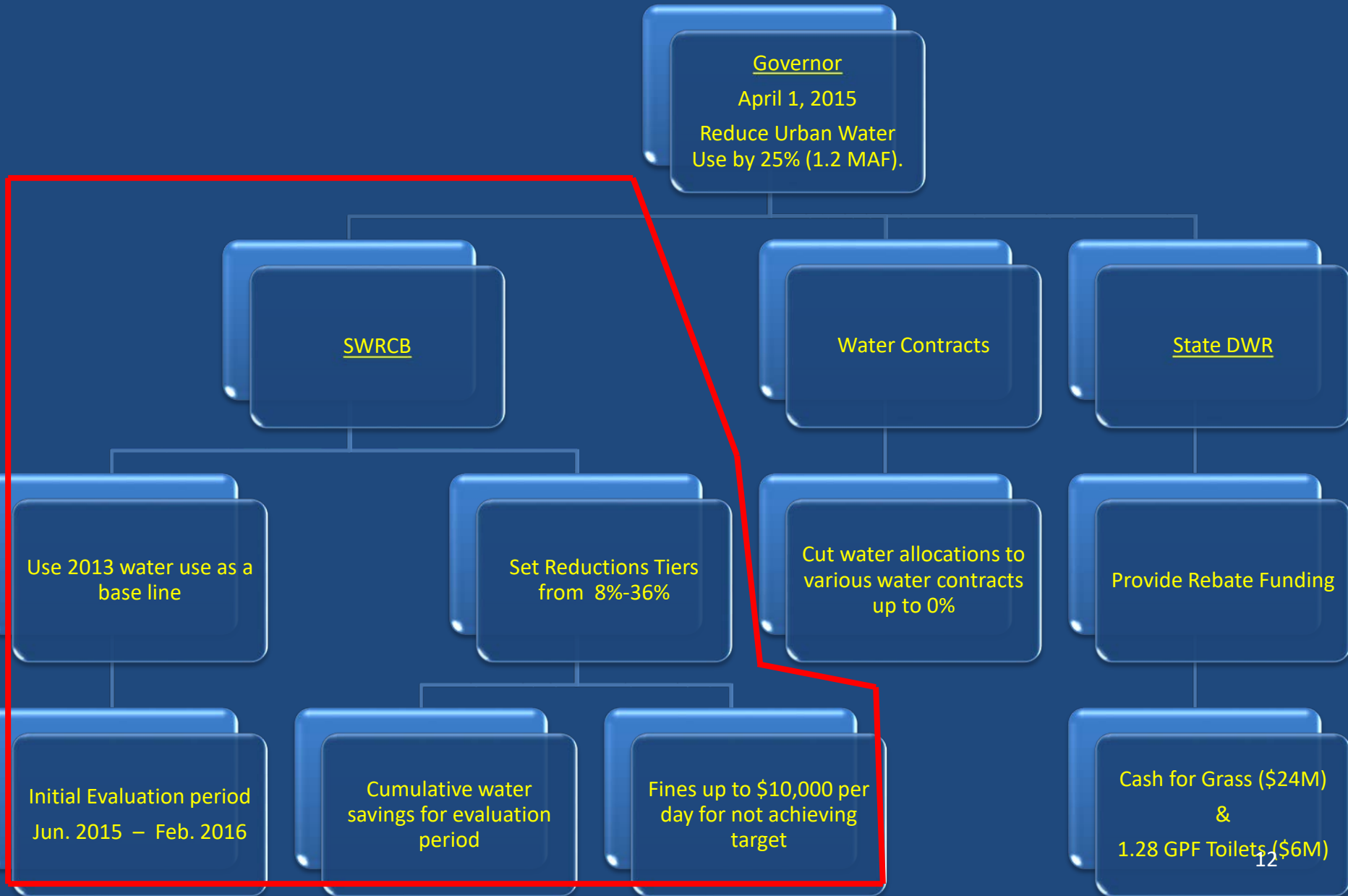
Initial Evaluation period
Jun. 2015 – Feb.
2016

Cumulative water
savings for evaluation
period

Fines up to \$10,000 per
day for not achieving
target

Cash for Grass (\$24M)
&
1.28 GPF Toilets (\$6M)

The State's Response



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The State's Response

Urban Water Supplier Conservation Tiers

Tier	R-GPCD Range		# of Suppliers in Range	Conservation Standard
	From	To		
1			4	4%
2	0	64.99	27	8%
3	65	79.99	23	12%
4	80	94.99	42	16%
5	95	109.99	61	20%
6	110	129.99	45	24%
7	130	169.99	81	28%
8	170	214.99	61	32%
9	215	612.00	67	36%

Estimated Statewide Water Savings (%)

24%

SSWD Reduction Tier

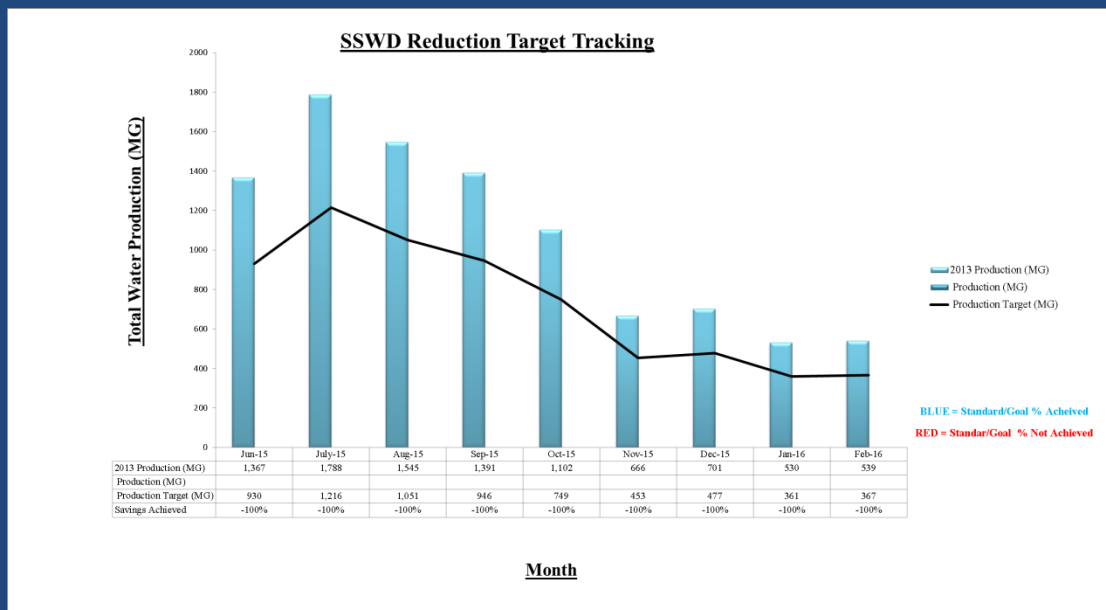
The District's Reaction to the Mandated Water Reductions

Enacted a Stage 3 – Water Crisis

- Calling for a 32% reduction in water use.

Augmented the Water Conservation Program Budget

- Increased budgets by \$682,000 (180%)
- New rebate programs, outreach and staffing



District Demand Management Measures

DMM 1 – Water Loss Control

Budget Expansion

From \$8,500 to \$108,500



Pressure Reduction

Reduce system wide pressure by 4-6 psi to reduce the amount of water lost to background leakage.



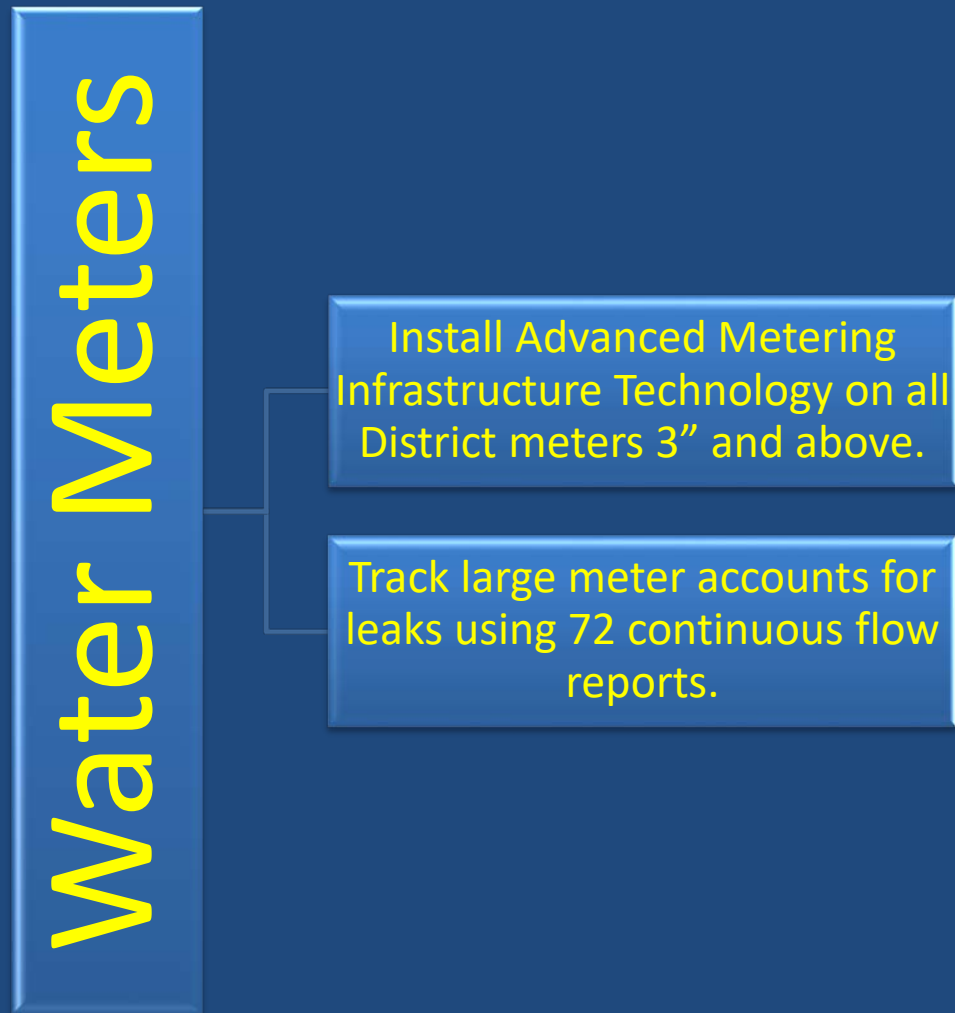
Expanded Leak Detection

Increased miles from 16 to 200

Targeted ACP, DI, and MLS

District Demand Management Measures

DMM 2 – Water Meters



District Demand Management Measures

DMM 3 – Community Outreach



Fight the Drought Make every drop count

California is enduring a fourth year of severe drought.
We all need to do our part by conserving water
both inside our homes and outdoors.

INDOOR CHECKLIST

Here's a handy list of ways that you can conserve water indoors.

-  ✓ **Take shorter showers**
Take a five-minute shower instead of a 10-minute shower
-  ✓ **Give it a twist**
Turn off the water as you brush your teeth, shave or wash your face
-  ✓ **Make it a full load**
Wash only full loads of clothes and dishes
-  ✓ **No leak is small**
Fix a leaky toilet or faucet. Leaks account for trillions of gallons of wasted water nationwide each year.
-  ✓ **Buy something new**
Replace your old toilet and clothes washer with a WaterSense labeled high-efficiency one or install a recirculating hot water pump. 
-  ✓ **Set up a Water-Wise House Call**
Our experts will help you monitor your water use and show you ways to conserve

Learn more at sswd.org or by contacting the Water Conservation Team at 916.972.7171 and conservation@sswd.org.

Fight the Drought Make every drop count

- ✓ **Limit landscape watering**
Most water use occurs outdoors, and that's where you can conserve the most
- ✓ **Check for leaks**
Quickly fix leaking toilets, plumbing fixtures and sprinklers
- ✓ **Take shorter showers**
Take a five-minute shower instead of a 10-minute shower
- ✓ **Set up a Water-Wise House Call**
Our experts will show you ways to conserve



General Manager
Robert S. Roscoe, P. E.



Board of Directors

President - Neil W. Schild
Vice President - Kevin M. Thomas
Frederick A. Gayle
Craig M. Locke
Robert P. Willett

NEWS RELEASE

May 28, 2015

Contact: Rob Roscoe
General Manager
Sacramento Suburban Water District
rroscoe@sswd.org
(916) 972-7171

Sacramento Suburban Water District Sets New Limits on Landscape Watering

Unveils new rebate programs to help customers conserve

SACRAMENTO—The Sacramento Suburban Water District (SSWD) has adopted new outdoor watering restrictions that limit landscape irrigation to two days per week on specific days and times.

The new watering guidelines are designed to further encourage water reductions in light of the severe drought plaguing California and new directives from the Governor and State Water Resources Control Board to reduce water use. Sacramento Suburban Water District is required to reduce its water use by over 30 percent.

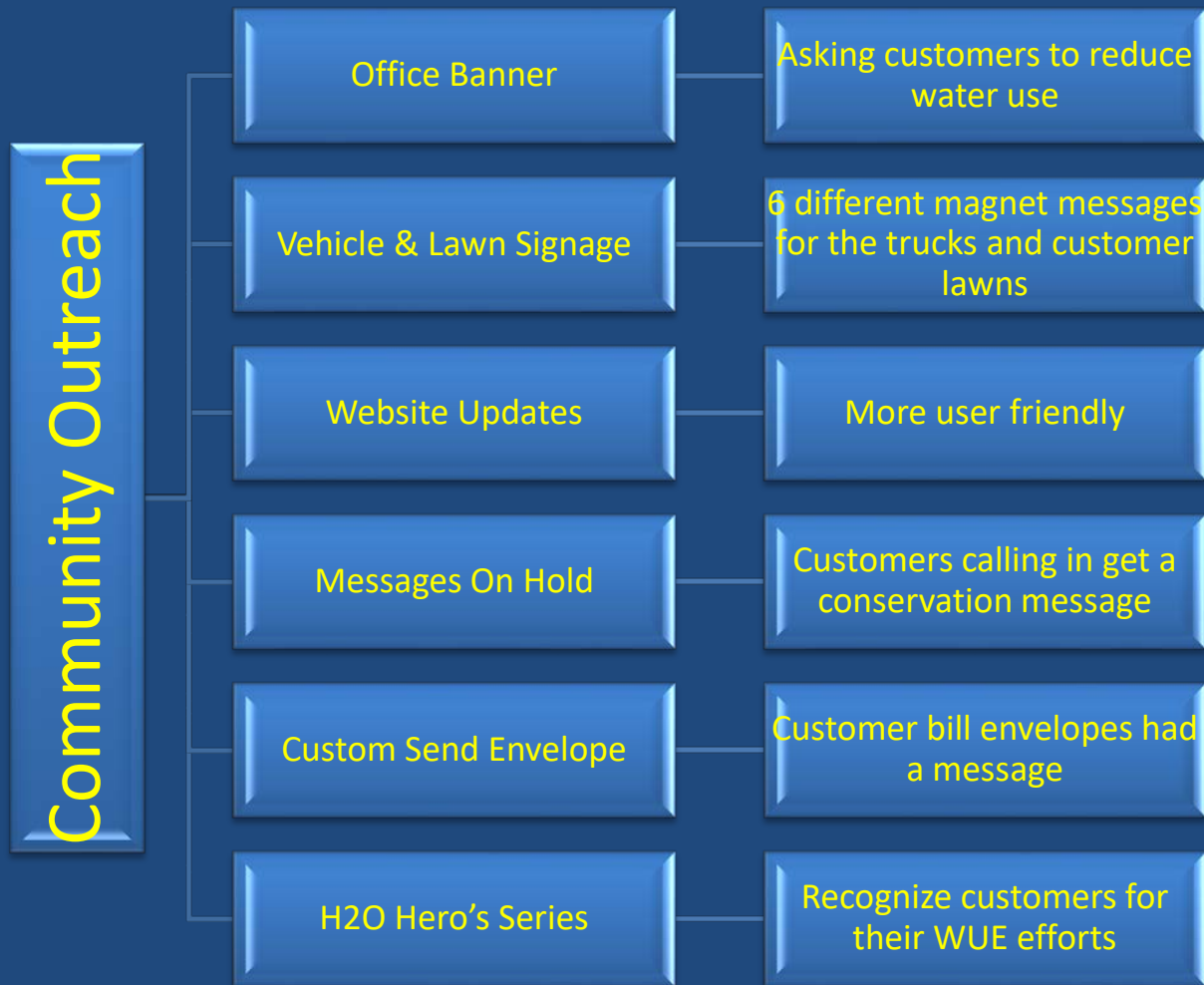
Effective immediately, outdoor watering is limited for all District customers to two (2) days per week according to the following schedule:

- Addresses ending in an odd number (1, 3, 5, 7, 9) can water on Tuesday and Saturday
- Addresses ending in an even number (0, 2, 4, 6, 8) and water on Sunday and Wednesday
- Customers are allowed to water on their designated day before noon or after 8 p.m.

--MORE--

District Demand Management Measures

DMM 3 – Community Outreach





GO FOR THE GOLD
And Limit
Landscape Watering

SSWD SUMMER WATERING SCHEDULE
Outdoor watering is allowed **TWO DAYS** a week:

- ▶ Addresses ending in an **ODD** number **1 3 5 7 9**
Tuesdays and Saturdays
- ▶ Addresses ending in an **EVEN** number **0 2 4 6 8**
Wednesdays and Sundays

BEFORE noon or AFTER 8 p.m.
Help us make every drop count!


SACRAMENTO SUBURBAN WATER DISTRICT
sswd.org



GO FOR THE GOLD

Limit landscape watering
LEARN MORE TIPS

SACRAMENTO SUBURBAN WATER DISTRICT



GO FOR THE GOLD
Limit Landscape Watering

sswd.org **SACRAMENTO SUBURBAN WATER DISTRICT**



GO FOR THE GOLD

Limit landscape watering
sswd.org

SACRAMENTO SUBURBAN WATER DISTRICT



When it's nice weather for ducks...

Give your sprinklers time off

sswd.org



Turn Off Your Sprinklers This Winter
Volunteer to Help

"OFF 'TIL SPRING"

SACRAMENTO SUBURBAN WATER DISTRICT
sswd.org

District Demand Management Measures

DMM 3 – Community Outreach



FIGHT THE DROUGHT
 Make every drop count! sswd.org

GO FOR THE GOLD
 Limit Landscape Watering sswd.org

FIVE MINUTES ONLY
 Shorter showers save water sswd.org

ONLY YOU CAN PREVENT RUNOFF
 Water in shorter cycles sswd.org

MAKE EVERY DROP COUNT
 Limit Landscape Watering sswd.org

GET A FREE WATER-WISE HOUSE CALL
 And learn how you can save sswd.org

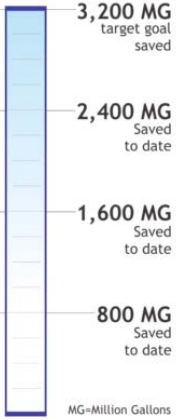
FIGHT THE DROUGHT
sswd.org Make every drop count!

SSWD's Water Savings Goal

Thanks for Your Efforts!



Get more tips on how to conserve water at sswd.org



MAKE EVERY DROP COUNT
 Limit landscape watering sswd.org

LOW WATER AND BEAUTIFUL
 Replace your lawn. Rebates available! sswd.org

GO FOR THE GOLD
 Limit landscape watering sswd.org

District Demand Management Measures

DMM 4 – Education Programs

- WaterSmart Landscaping Workshops
 - Principles of River-Friendly Landscaping
- Regional Water School
- Water Education Foundation, Water Education for Teachers (Project WET).

District Demand Management Measures

DMM 5 – Residential Program

New Rebate Program (\$200,000)

Cash for Grass •\$1,000 •83 Rebates Given	Irrigation Efficiency Upgrades •\$500 •35 Rebates Given	Recirculating Hot Water Pumps •\$200 •37 Rebates Given	Pool Covers •\$100 •28 Rebates Given	WBIC •\$150 •28 Rebates Given	Rain Sensors •\$100 •11 Rebates Given	HECW •\$75 •137 Rebates Given
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WaterSense Labeled Indoor Fixtures

Showerheads

Faucet aerators

Leak Tabs

District Demand Management Measures

DMM 5 – Residential Program

Water-Wise House Calls

Indoor and Outdoor



Outdoor Devices

Hose nozzles,

Hose Times

Moisture Meters



Low-Income Indoor Direct Installation Toilet Program

Grant funded program to install WaterSense Labeled indoor devices in disadvantaged multi-family complexes.

District Demand Management Measures

DMM 5 – Residential Program

AMI Leak Notification Program

Customers with 72 hours of continuous flow.

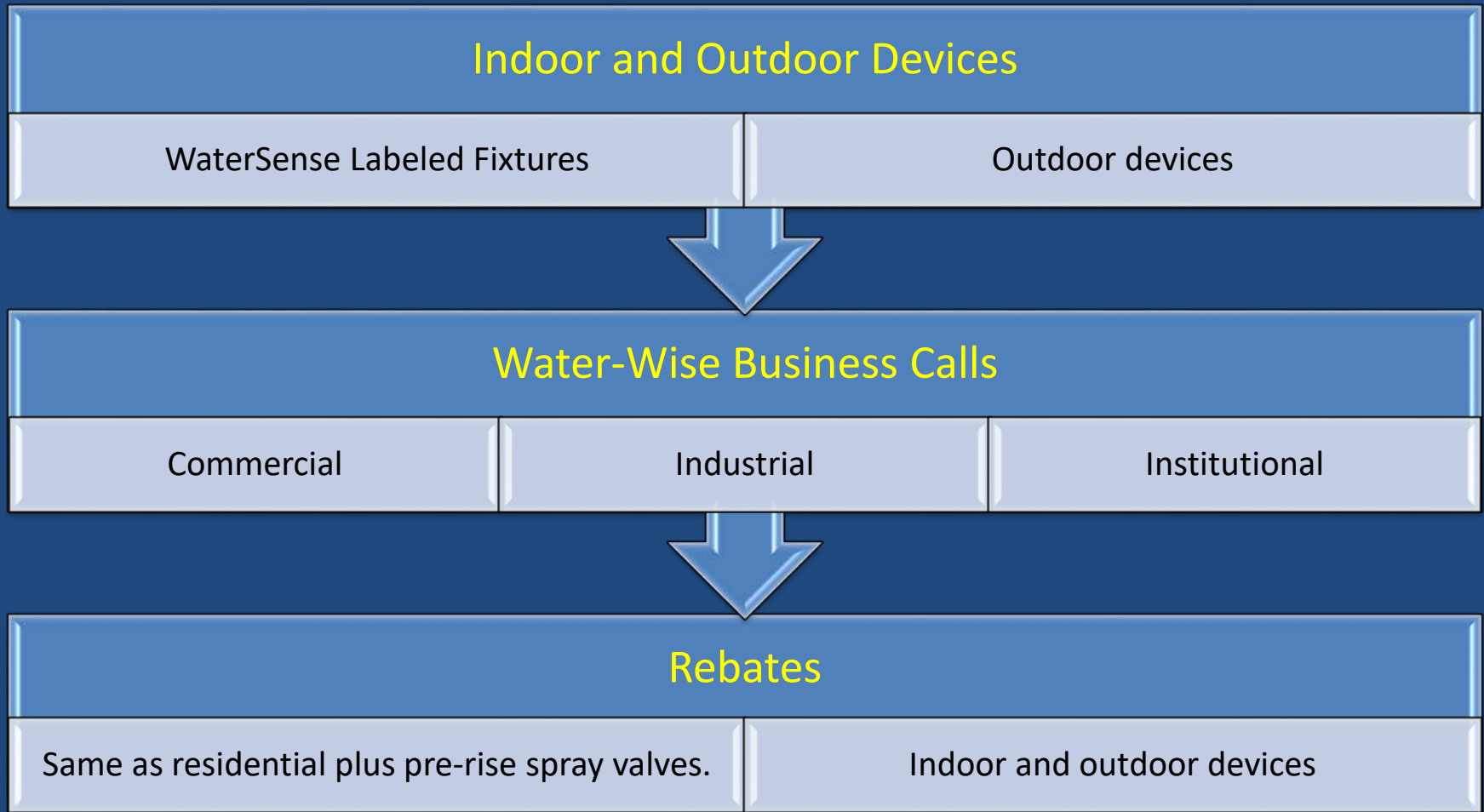
Over 3,000 Notifications have been sent out.

We offer assistance in locating leaks.

We do not use this as an enforcement tool.

District Demand Management Measures

DMM 6 – Commercial, Industrial, Institutional



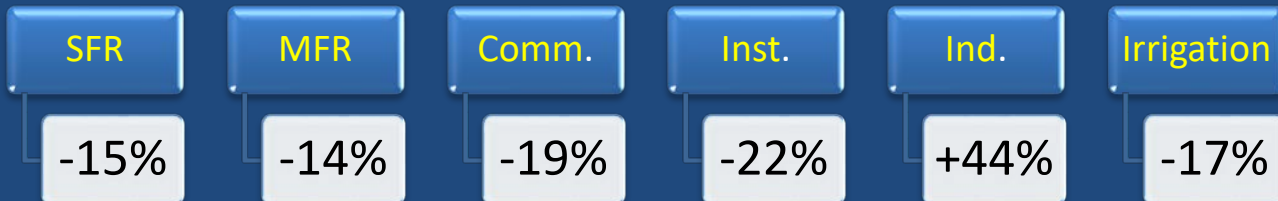
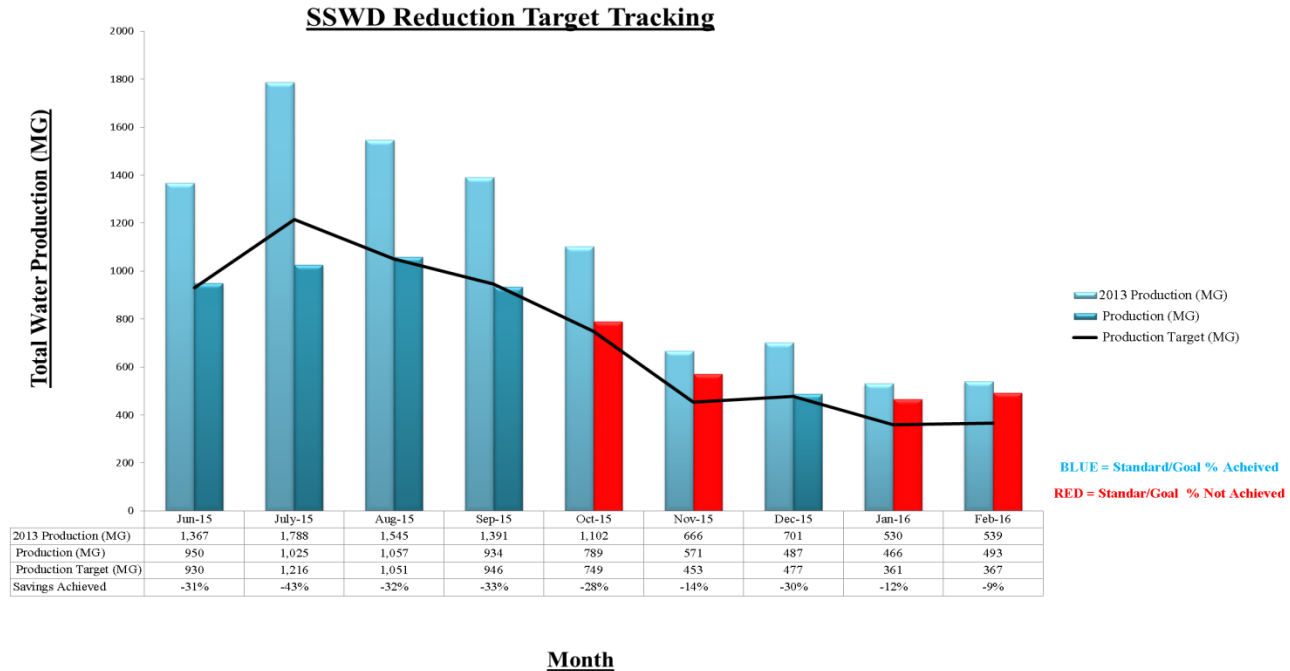
District Demand Management Measures

DMM 7 – Landscape Irrigation Customers

- Modified watering day schedules for those who save 32% or greater.
- Landscape Irrigation Audits
- Rebates

Initial Success

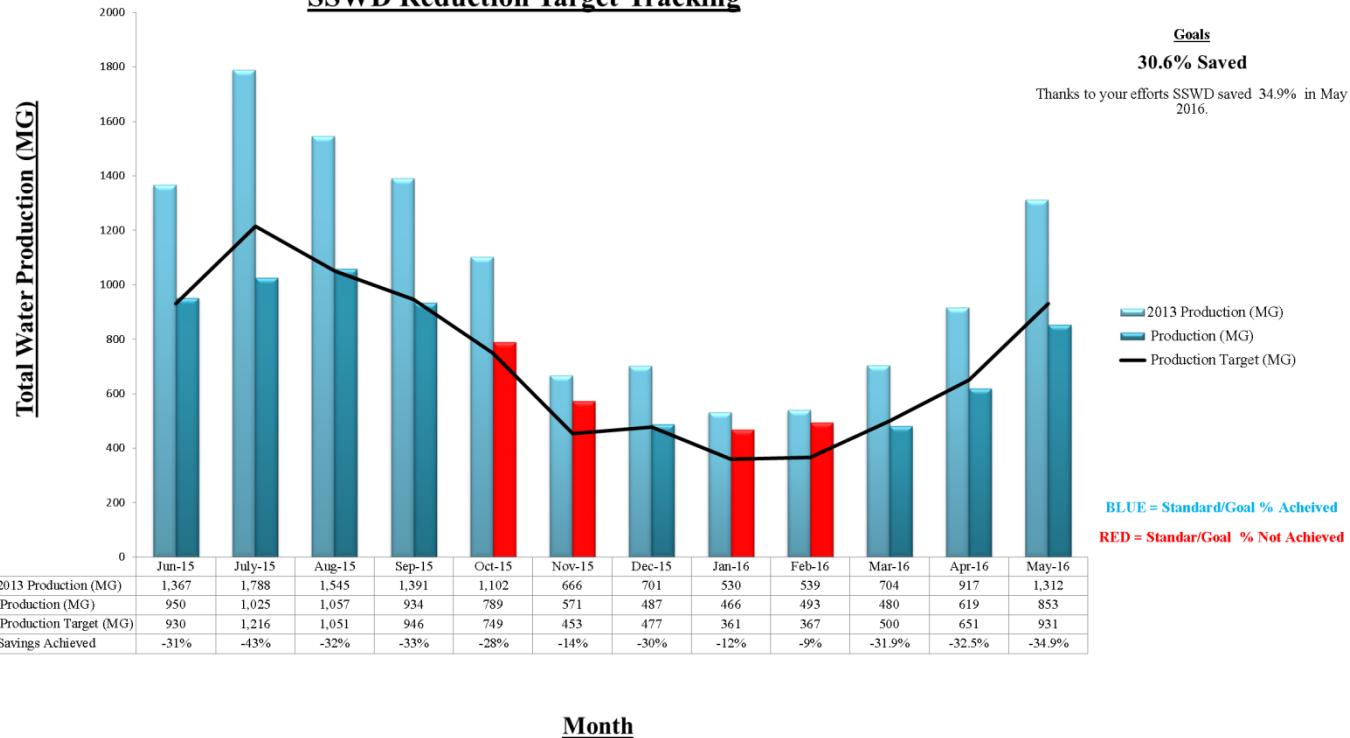
30% Reduction in Water Use!



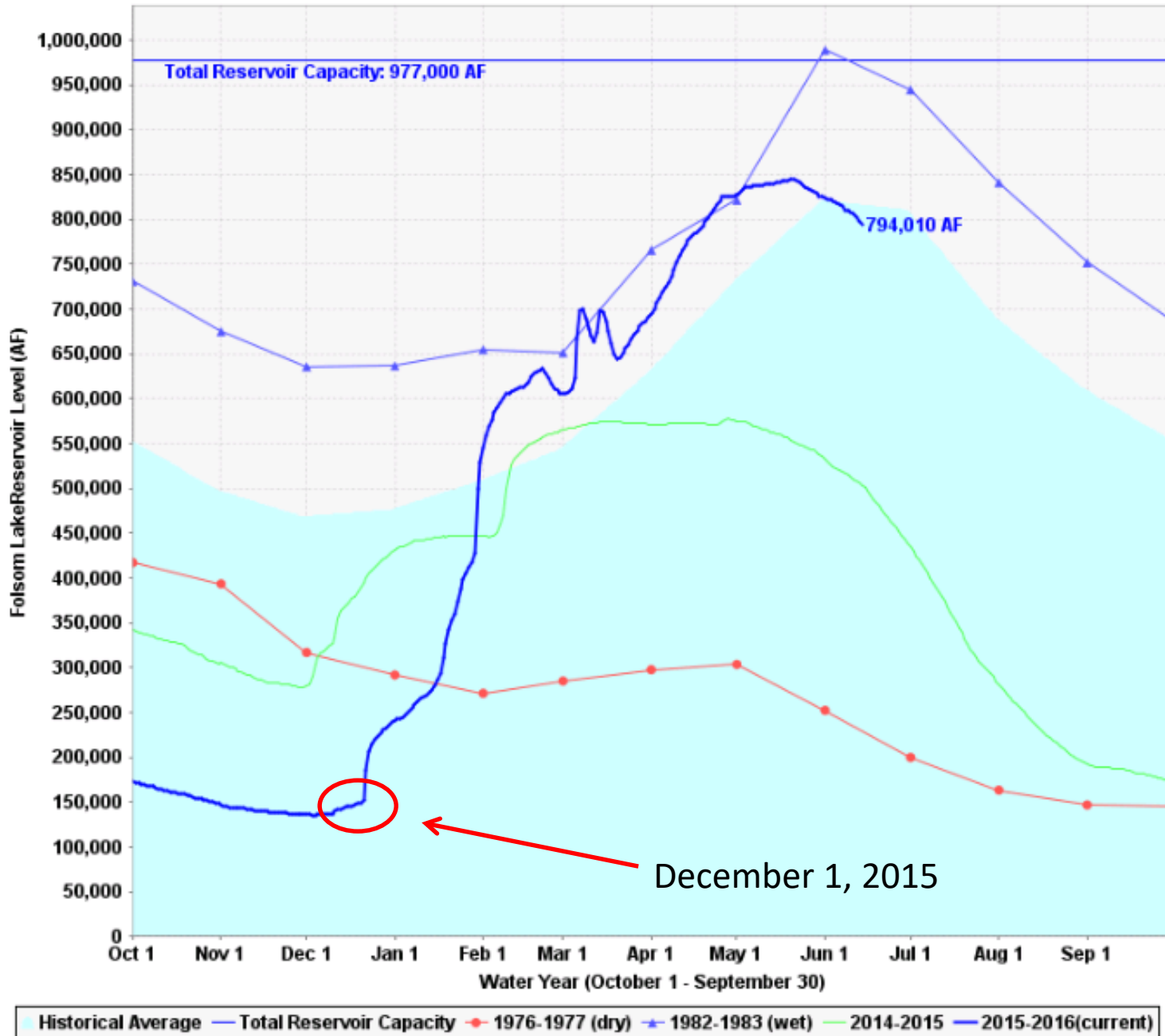
Targets and Achievements

29% Target
 31% Saved through May 2016
 3,840 MG

SSWD Reduction Target Tracking



Folsom Lake Storage Levels



(Credit: CA DWR)

Data as of Midnight: 01-Apr-2016

Change Date: 01-Apr-2016

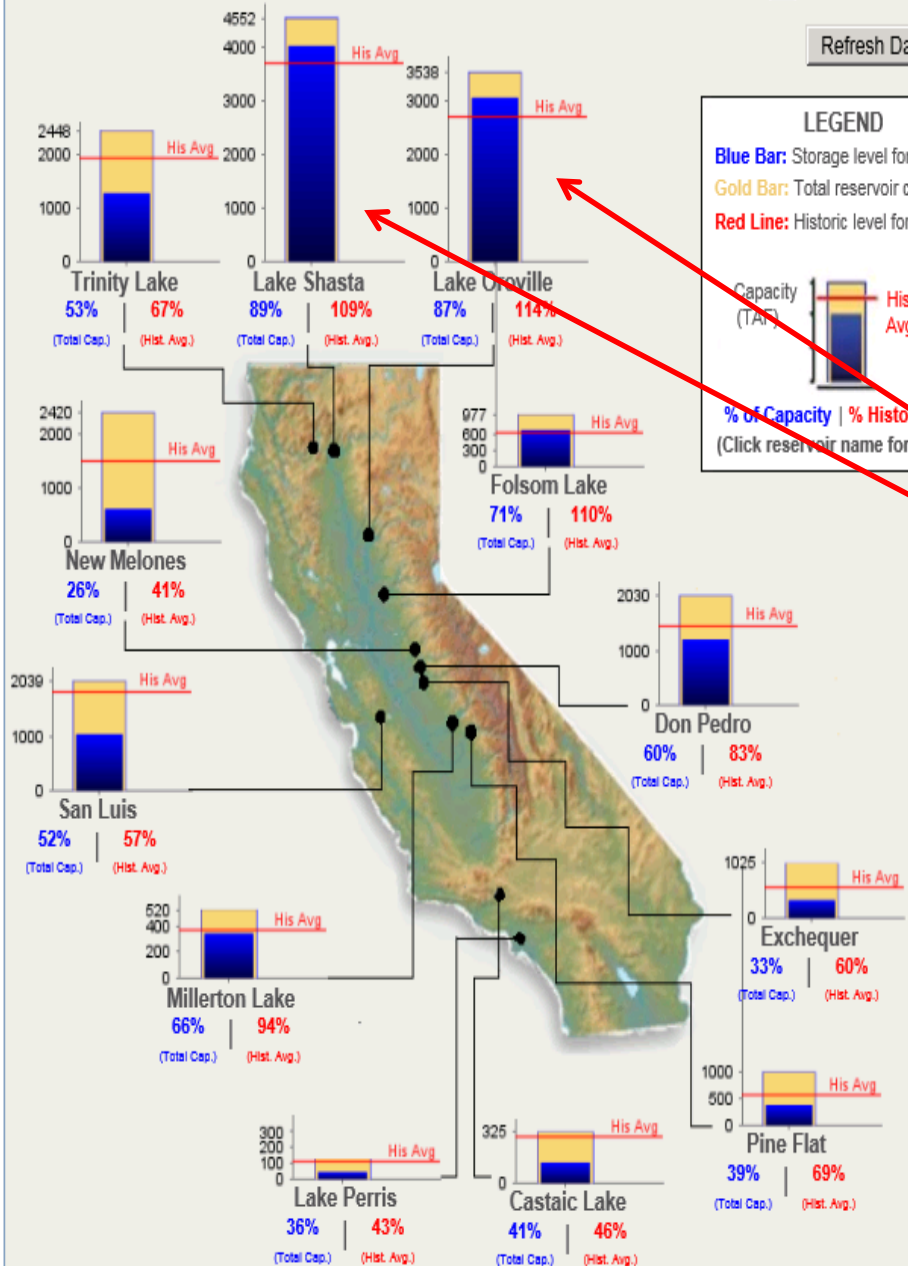
Refresh Data

LEGEND

- Blue Bar:** Storage level for date
- Gold Bar:** Total reservoir capacity.
- Red Line:** Historic level for date.

Capacity (TAF) | Historical Avg Mark

% of Capacity | % Historical Avg
(Click reservoir name for details)

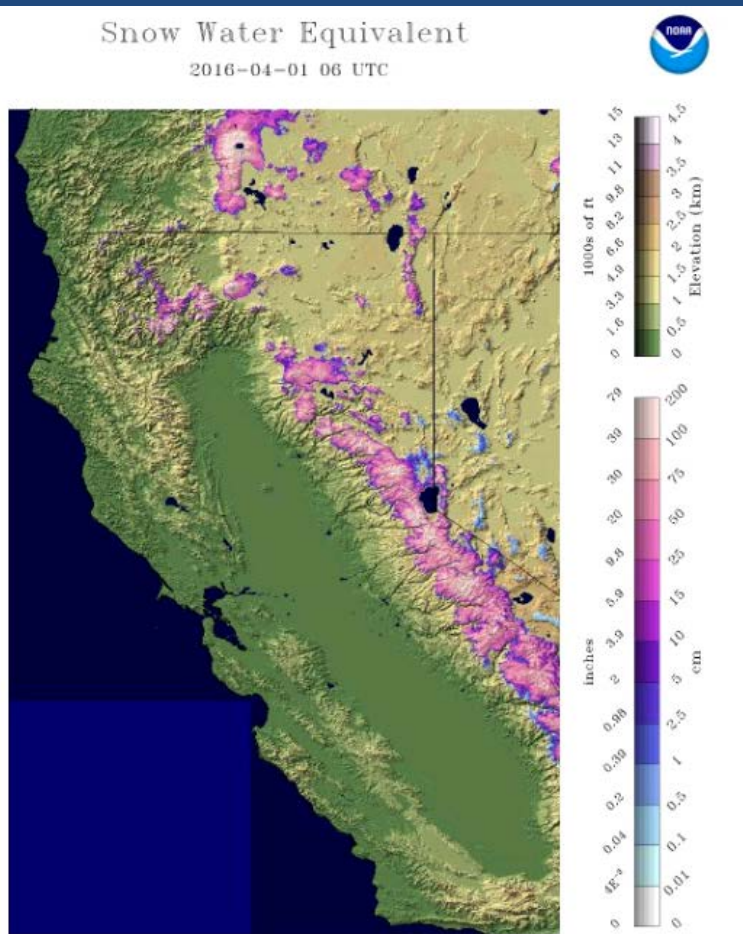


California Reservoir Storage April 1, 2016

Lake Oroville = 3.5 MAF (89%)
Lake Shasta = 4.5 MAF (87%)

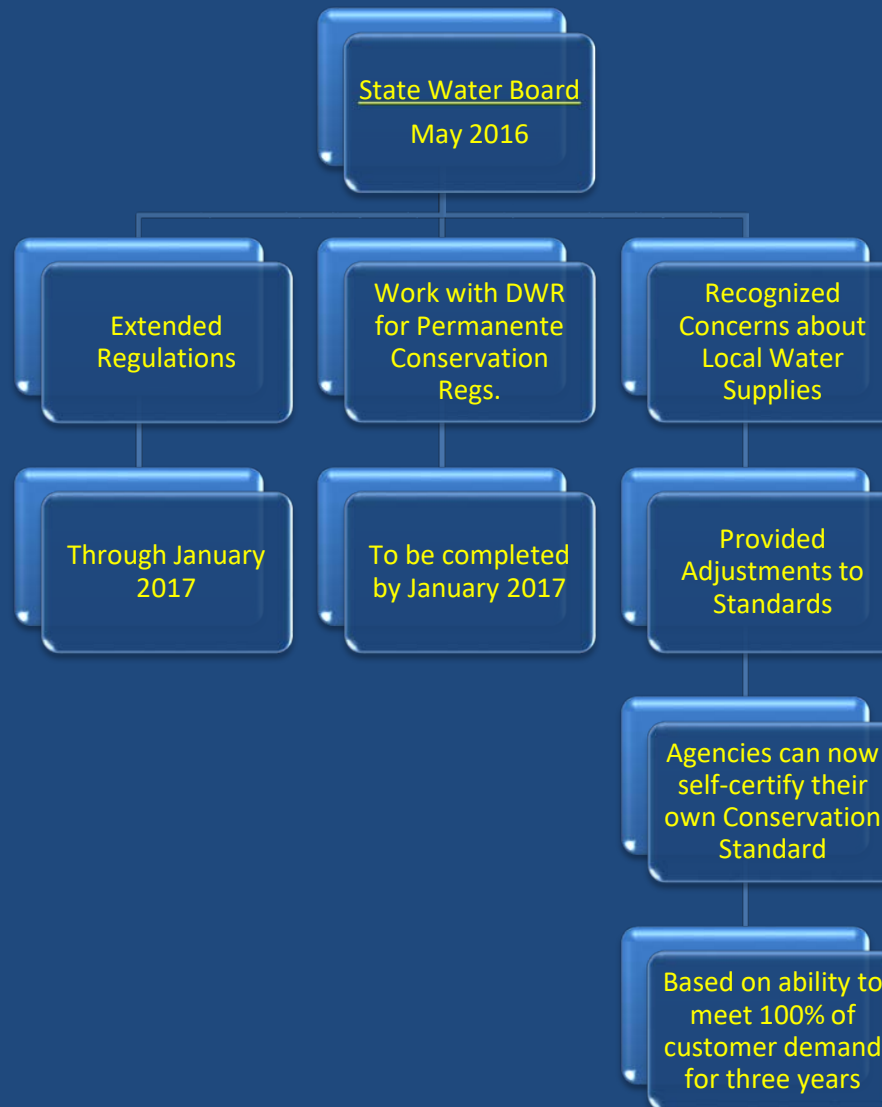
(Credit: CA DWR)

California Snowpack April 1, 2016

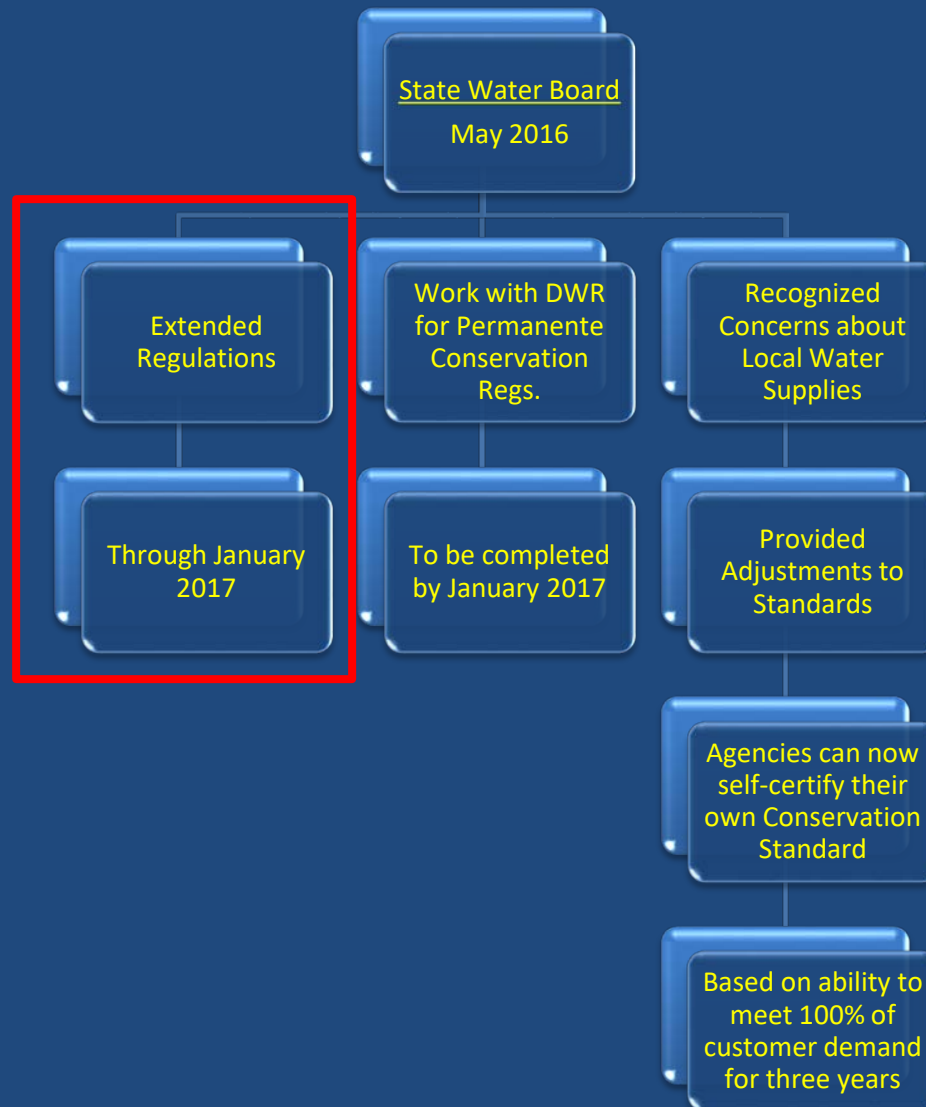


- California snow water equivalent = 24.1.”
 - 86% of normal
 - 94% of Normal (North)
 - 88% of Normal (Central)
 - 73% of Normal (South)

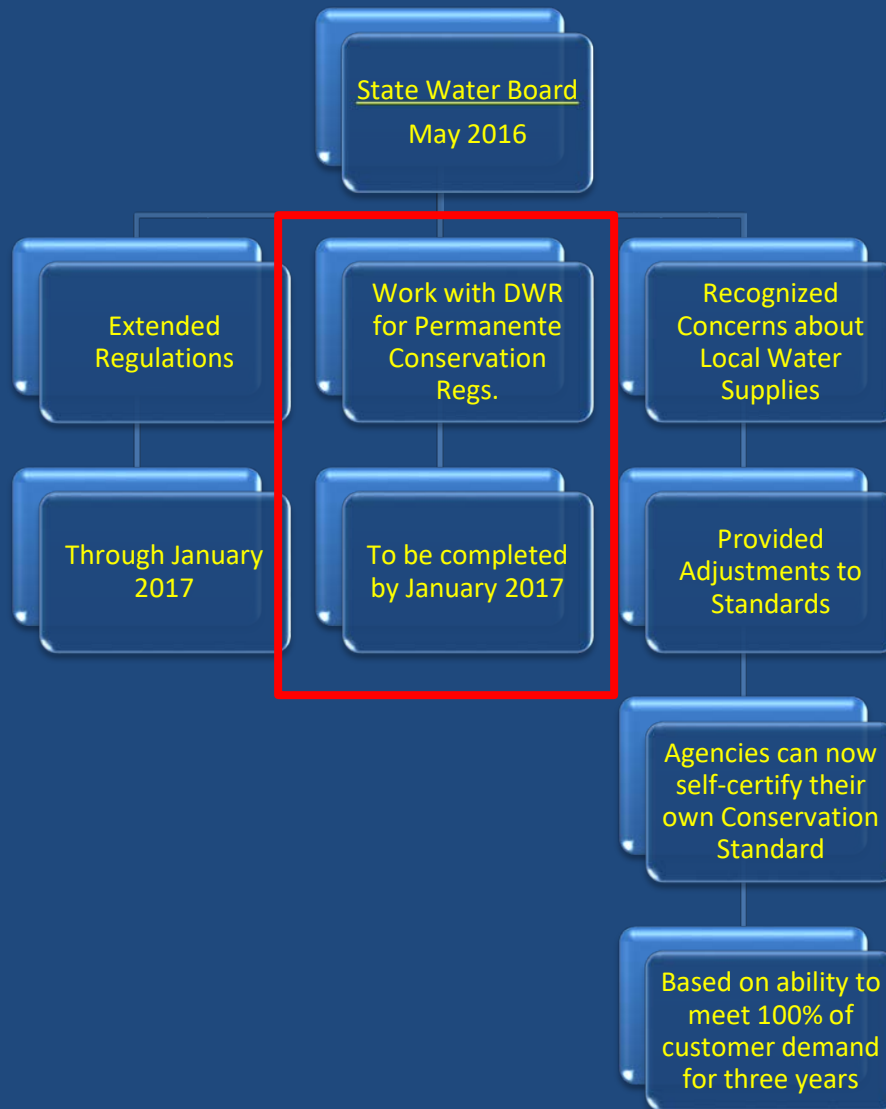
The State's Response



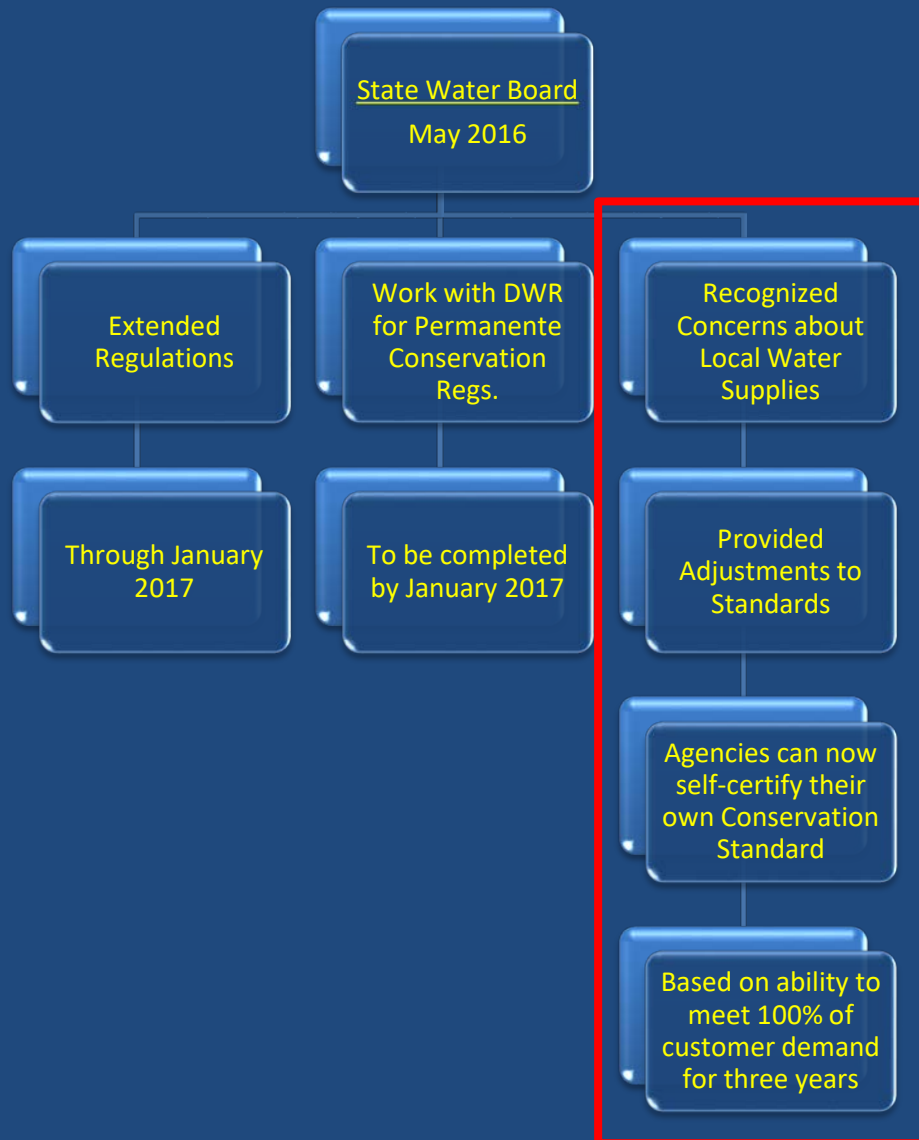
The State's Response



The State's Response



The State's Response



District's Response To Most Recent Regulations

Normal Water Supply

- 10% Conservation Goal
- Use Water Efficiently
- Do not waste water

Continued rebates

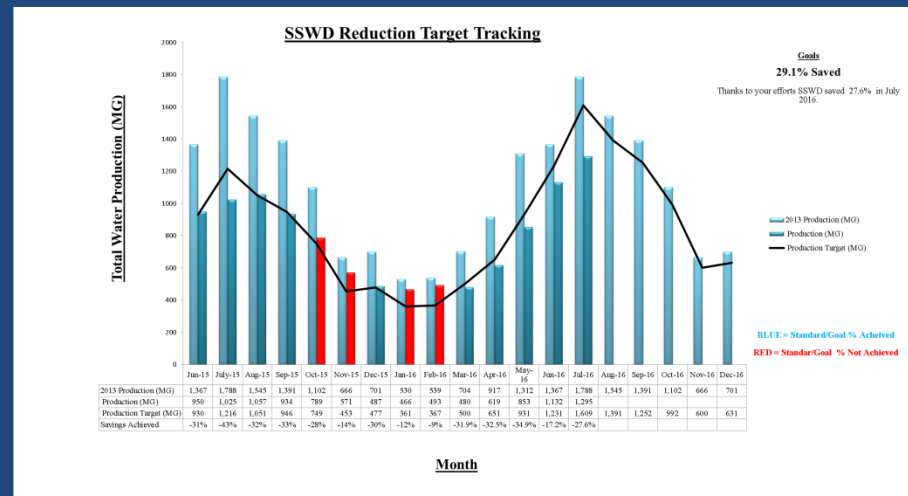
- WBIC
- Irrigation Efficiency Upgrades
- Pool Covers
- Rain Sensors
- Clothes Washers

Continued Outreach

- Continue to message the importance of water use efficiency
- "Make conservation a way of life."

Updated Regulations

- Customer Investment Recognition
- WBIC and drip system irrigation are exempt from watering day restrictions



District Summary

31% Saved!

District

- Aggressive Public Outreach Program;
- Increased funding for customer incentives;
- Restricted watering days to 2 days per week;
- Implemented additional Water Loss Control actions;
- Increased Public Education Program;
- Increased patrols for water waste;
- Increased temporary staffing levels; and,
- Implemented AMI on large meters.

Regional Summary

31% Saved!

Region

Regional Water Authority and Local Media

- Regional Public Outreach Campaign;
- Regional Water School;
- Grant Funding Opportunities; and,
- Regional media messaging on TV and radio.



You are here

Questions?

Greg Bundesen
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Image by: Stokell, Nelson, Hasler
Laboratory for Atmospheres
Goddard Space Flight Center
<http://rsl.gsfc.nasa.gov/rsl>



Hurricane Linda west of Mexico
September 9, 1997 17:45 UTC
Data from: NASA, NOAA, USGS

