

# 2015 Drought: A Statewide Perspective

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California Drought Policy Conversation: Presentation of State  
Policies and other Rural Policies

October 21, 2015



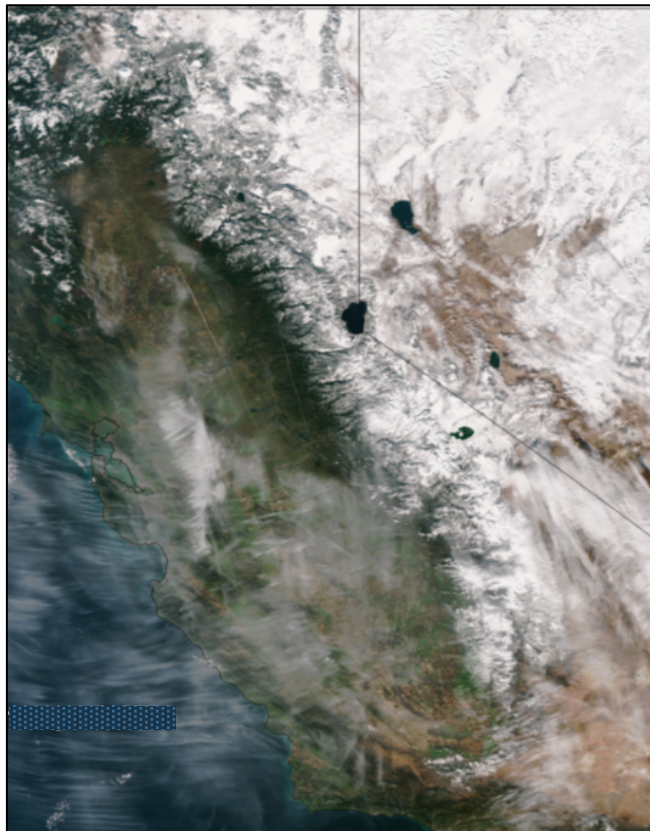
*Division of Statewide Integrated Water Management  
Water Use Efficiency Branch*

# Governor Brown Issues Executive Order





# Snowpack Changes: 2013 to 2015



January 13, 2013  
*134% of Normal*



January 13, 2014  
*Minimal snowpack*



January 31, 2015  
*Valley is green after December rains, but no snowpack*



# Statewide Drought Conditions

- 2013-2014: driest 12-month period in 119 years
- 2015 snowpack level is the lowest it has been in 500 years.
- A very rare event in a climate context, but not compared to Medieval drought
- Similar to 1976-1977 drought, but temps are 2 degrees (F) higher, & CA grew by **16 million** people
- CA Dept. of Finance projects an increase in state population from **37 million** in 2010 to **51 million** by 2050





# Colorado River

- 15<sup>th</sup> Year of drought on the Colorado
- Colorado River is over allocated
- Lake Mead at record low, stores water for parts of Arizona, S. California, S. Nevada and Northern Mexico



- **Governor Declared Drought Emergency**
- **2015 - 4<sup>th</sup> dry water year statewide**
- **2014 - Warmest year on record**
- **2012-2014 - Driest 3 years on record**
- **January 2015 – Driest in most areas**
- **2015 - Warmer and dry**
- **Record low snowpack: zero**
- **Statewide storage is like 2013/14**
- **Groundwater basins continue to be depleted**
- **Local conditions are degrading**
- **High level of local, State, and federal coordination**



# Snow Water Content is Low so Minimal Runoff

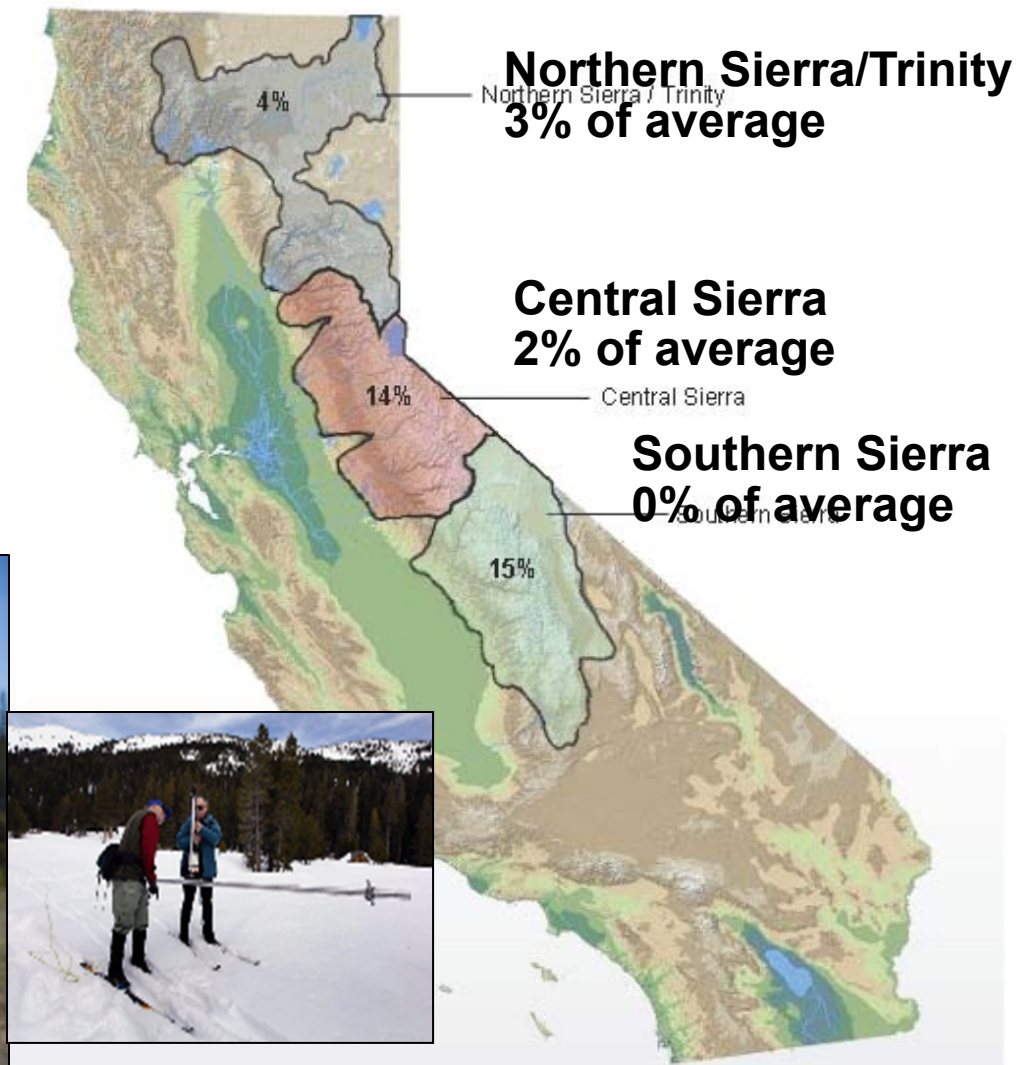
May 1, 2015

Statewide Average: 3%



## Statewide Summary of Snow Water Content

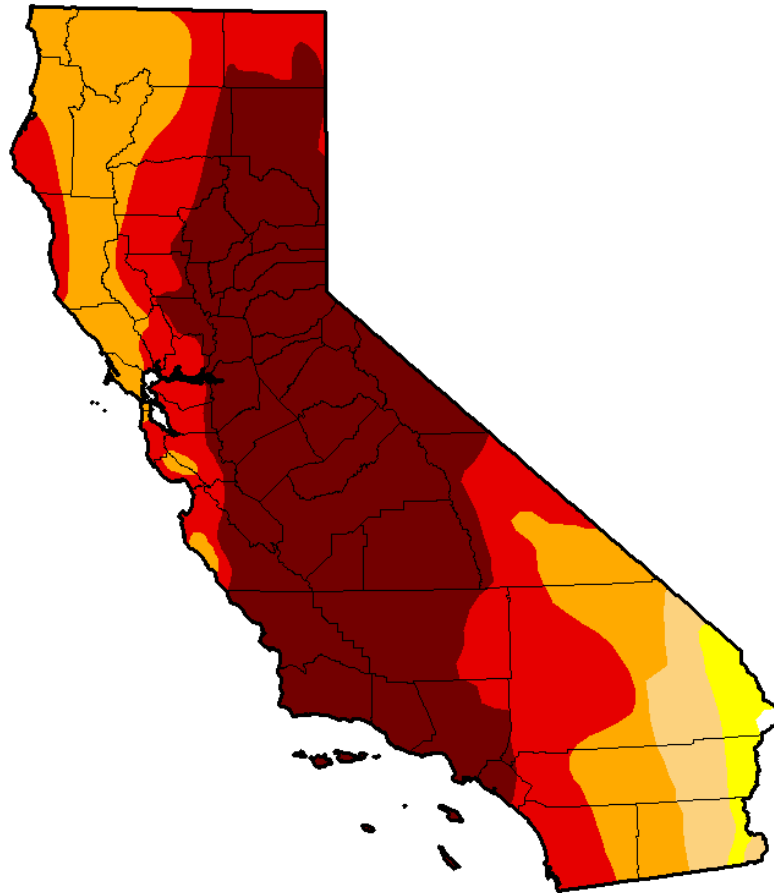
Current Regional Snowpack from Automated Snow Sensors - % of April 1 Average



<http://cdec.water.ca.gov/cdecapp/snowapp/sweq.action>  
Data as of February 7, 2014



# Statewide Drought Conditions



**Estimated Population  
in Drought Areas:  
36,660,378**

## **Local Emergencies Declared**

- 27 Counties
- 12 Cities
- 9 Tribal  
Reservations
- 12 Special Districts  
(9/15/2015)

**United States Drought Monitor**  
Sept 15, 2015



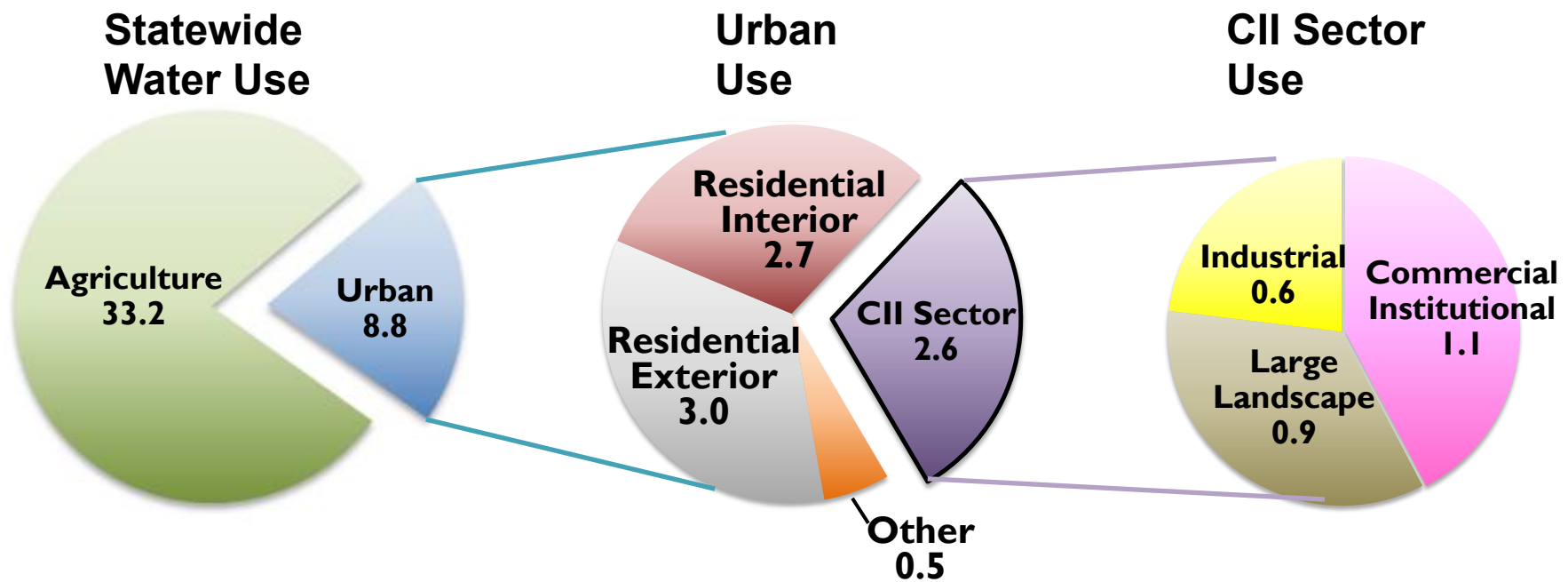
# Impacts and Challenges



DWR Snow Survey 2011



DWR Snow Survey 2015



Note: Based on 1998-2005 CWP averages. Volumes shown are in millions of acre-feet per year.





# California Water Action Plan

- Issued January 2014
- Ten actions set a path toward reliability, restoration and resilience in CA water



# CA Water Action Plan- Water Use Efficiency-Directed Actions

- DWR structuring activities in line with CA Water Action Plan
  - #1- Make conservation a way of life (improve efficiency, provide funding, increase water/energy/GHG reduction connections, promote local conservation ordinances)
  - #5- Manage and prepare for dry periods





## Governor and Legislature announce a \$1 billion plan to provide immediate relief and stave off future problems.

- Accelerates \$128 million in expenditures from the Governor's budget to provide direct assistance to workers and communities impacted by drought and to implement the Water Action Plan.
- \$272 million in Proposition 1 Water Bond funding for safe drinking water and water recycling
- Accelerates \$660 million from the Proposition 1E for flood protection in urban and rural areas.

# EMERGENCY DRINKING WATER

**\$1 billion emergency drought relief package**  
\$19 million in funding to meet emergency drinking water needs.

## Eligible Entities

- Public Agencies
- Community Water Systems (that serve DACs)
- Not-for-Profit Organizations (that serve DACs)
- Tribal Governments (that serve DACs)

## Eligible Projects may include

- Bottled Water
- Well Repair, Rehabilitation, and Replacement
- Point of Use Devices (for example, Filtration)
- Hauled Water
- Treatment Systems

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/caa/dw\\_droughtfund/](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/caa/dw_droughtfund/)

Images of East Porterville from the Los Angeles Times



# Emergency Conservation Regulation-Prohibited for All Californians

1. Irrigation runoff
2. Washing vehicles without auto shutoff nozzle
3. Washing driveways and sidewalks
4. Fountains without recirculation systems
5. Irrigating during or 48 hours after rain event
6. Irrigating turf on street medians
7. Irrigating landscapes of newly constructed homes and businesses without drip or microspray





# Emergency Conservation Regulation- Small Community Water Systems

- 15-2,999 service connections
- Conserve 25% or reduce outdoor watering to two days per week.
- One time report due by December 15, 2015

# More Drought Actions

- **SaveWater.ca.gov**

[Savewater.ca.gov](http://Savewater.ca.gov)



- **Conservation Water Pricing** (State Water Board)

[Waterboards.ca.gov/waterrights/water\\_issues/programs/drought/pricing/](http://Waterboards.ca.gov/waterrights/water_issues/programs/drought/pricing/)

- **Turf Removal Rebates** (DWR)

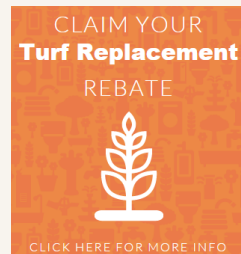
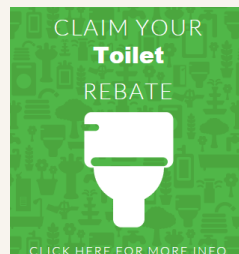
[Saveourwaterrebates.com/turf-replacement-rebates.html](http://Saveourwaterrebates.com/turf-replacement-rebates.html)

- **Appliance Rebates** (CEC)

[Saveourwaterrebates.com/toilet-rebates.html](http://Saveourwaterrebates.com/toilet-rebates.html)

- **Water-Energy Technology Program** (CEC)

[Energy.ca.gov/wet/](http://Energy.ca.gov/wet/)





# Drought Funding & Assistance

- Senate Bills 103 & 104 appropriated \$687.4 million for drought
- Draft Drought IRWM PSP for \$200 million now available for review: <http://water.ca.gov/irwm/grants/implementation.cfm>
- PSP Drought for \$19 million Cap & Trade in development
- **Prop 1 WUE PSP \$70 million for grants – for 2015/16 9.5 million yr.Ag, 8.0 million Urban**





# 2015 Prop 84 IRWM Drought Solicitation

- In addition to being one of the 11 IRWM project elements, projects must also be one of the SB 104 drought project types:
  - Immediate drought preparedness
  - Water supply reliability and delivery of safe drinking water
  - Locally not cost effective water conservation programs and measures
  - Water quality or ecosystem conflict created by the drought
- All other IRWM grant programs remain in effect

# Water Energy Grant Program

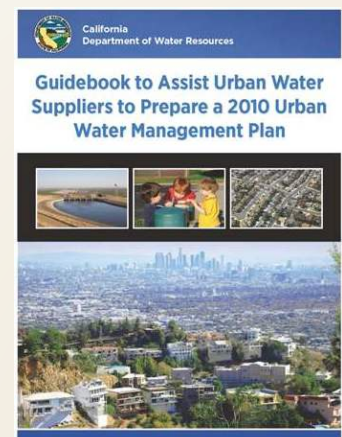
- \$19 M Local Assistance
- Residential, commercial, or institutional water efficiency programs or projects
- Projects must do all of the following
  - Reduce greenhouse gas emissions
  - Reduce water use
  - Reduce energy use





# Urban Water Management Plans

- UWMPs to be updated every 5 years
- Completed by urban suppliers providing more than 3,000 AFY or with >3,000 connections
- 2015 due to DWR on July 1, 2016
- Guidebook expected to be released in July 2015
- Contain Water Shortage Contingency Plans







## 6 components of Water Shortage Contingency Plans

1. Define stages
2. Assess supply for 3 consecutive dry years
3. Discuss catastrophic supply interruption plan
4. Define prohibitions, penalties, and consumption reduction methods
5. Describe expected revenue effects and proposed measure to overcome those effects
6. Describe methods used to monitor and document water use reductions

# Urban Drought Guidebook Update in 2015

Urban Drought Guidebook  
2008 Updated Edition

State of California  
Department of Water Resources  
Office of Water Use Efficiency and Transfers



- Water supplier-focused
- Instructions for preparing Water Supply Contingency Plans for UWMPs
- Drought response examples
- [http://www.water.ca.gov/pubs/planning/urban\\_drought\\_guidebook/urban\\_drought\\_guidebook\\_2008.pdf](http://www.water.ca.gov/pubs/planning/urban_drought_guidebook/urban_drought_guidebook_2008.pdf)



# Urban Water Conservation Big Ticket Items

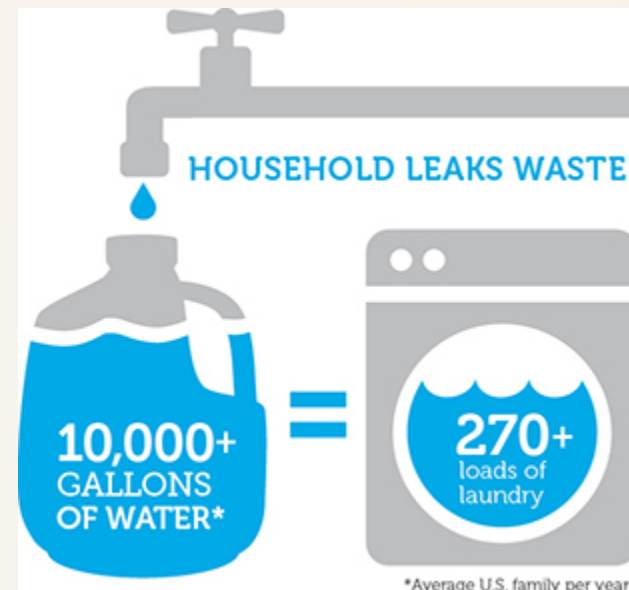
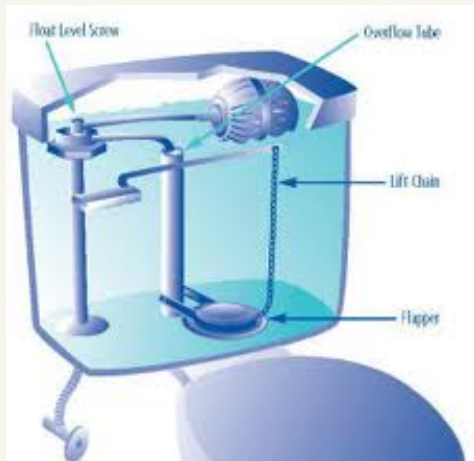
- Reduce landscape water use
- Give better pricing signals
- Provide better information to customers
- Reduce leaks





# Fix Leaks

- An average CA home loses 31 gallons of water per day to leaks
- toilet leaks most common (flappers), then faucets, irrigation systems and then pipes





# Graywater Standards Simplified in 2010

- Clothes washer systems that do not require cutting of existing plumbing systems now exempt from construction permit process
- A “Simple System” discharging less than 250 gallons per day MAY be exempted by local enforcing agency
- California Department of Housing and Community Development Division of Codes and Standards: [http://www.hcd.ca.gov/codes/shl/2007CPC\\_Graywater\\_Complete\\_2-2-10.pdf](http://www.hcd.ca.gov/codes/shl/2007CPC_Graywater_Complete_2-2-10.pdf)



# Demand Offset Programs

- One way to reduce the impact of new connections is to enact a demand-offset program. Under this program, developers wanting approval for new construction are required to demonstrate that they will conserve, in the community, two to three times the quantity of water the new project will use. 10 California communities have an offset program.





# Water Meter Moratoriums

- One way to reduce the impact of new connections is to enact a water meter connection moratorium Under this program, each community determines the conditions under which they will allow new connections. 7 California communities have an water meter moratorium.

# Recycled Water

***Beneficially reused treated municipal wastewater  
(secondary or tertiary treatment)***





## Recycled Water as a Drought Response

- Increased interest in recycled water as ‘normal supplies’ and state and federal allocations have been decreased
- State Water Resources Control Board in 2014 issued a draft General Waste Discharge Requirements for Recycled Water Use.
- New subdivision in San Diego has recycling built-in.



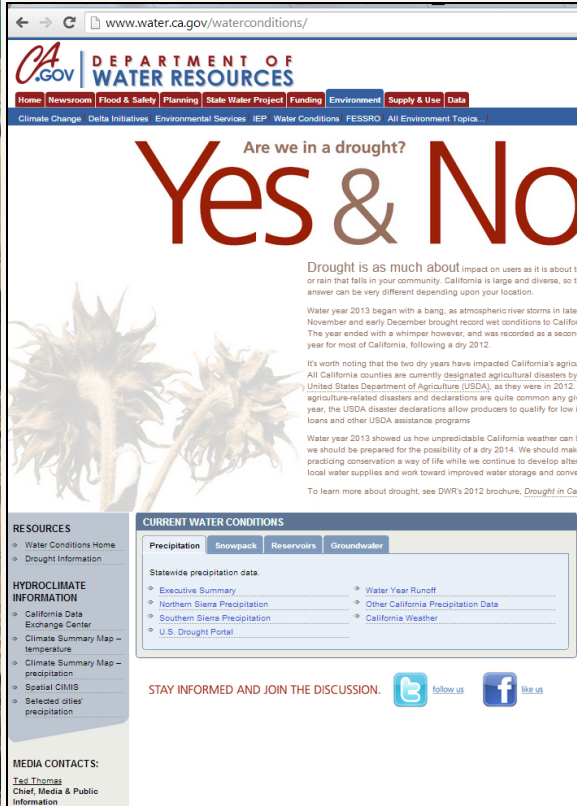


# Desalination and Drought

- Impacts on water supply from drought
  - Seawater is not linked to rain or snowpack. It is available whether or not there is a drought.
  - Inland, ground water and surface water are linked to rain or snowpack.
    - Natural fresh water replenishment is diminished during droughts.
- Desalting saline water mitigates the effects of droughts by producing fresh water.

# DWR Activities

## Updating the DWR Drought Page with Links and Tools



The screenshot shows the DWR website with the headline "Are we in a drought? Yes & No". The page includes a navigation bar with links like Home, Newsroom, Flood & Safety, Planning, State Water Project, Funding, Environment, Supply & Use, and Data. Below the headline, there is a section titled "Drought is as much about impact on users as it is about the rain that falls in your community." followed by text about the 2013-2014 water year and the impact of drought on California's agriculture. The page also features a "CURRENT WATER CONDITIONS" section with links to Precipitation, Snowpack, Reservoirs, and Groundwater. At the bottom, there are social media links for Twitter and Facebook, and a "STAY INFORMED AND JOIN THE DISCUSSION." section.



The screenshot shows the DWR website with the headline "Drought Information". The page includes a navigation bar with links like Home, Newsroom, Flood & Safety, Planning, State Water Project, Funding, Environment, Supply & Use, and Data. Below the headline, there is a section titled "Drought Information" with links to Publications, Conservation, and References. The page also features a "MEDIA CONTACTS:" section with contact information for Ted Thomas and Elizabeth Scott. At the bottom, there are links for "Back to Top", "Help", "Comments or Suggestions", and "Document Viewers".

Existing Drought Page

Existing Water Conditions Page



# Proposition 50 Focus

- Brackish groundwater or ocean water sources
- Product water for potable purposes
- \$3 Million grant awarded to Carlsbad





# Proposition I Requirements

- 50% local cost share (exceptions for disadvantaged and economically distressed areas)
- \$5 M cap per project
- Lower caps allowed
- Implemented consistently with Proposition 50



# Types of Projects Funded Under Prop 50

- Construction
- Pilot or demonstration
- Feasibility studies
- Environmental documentation
- Research



# Proposition I Eligible Applicants

- Government agencies
- CPUC regulated investor-owned utilities
- Tribes
- Mutual water companies
- Nonprofits
- Universities & colleges (incorporated as public institution or nonprofit)





# DWR Working with Others

- Save Our Water Campaign
- CUWCC urban workshops
- UC ANR ag outreach
- ITRC ag assistance
- CRWA Small system workshops –  
Drought Workshops and Leak Detection
- Presentations



# **2015 Proposition 1 WUE Urban Grant Criteria topics**

- 1) Funding caps
- 2) Ratio of implementation projects to demonstration, pilot and research
  - a. Specific research requests for demonstration, research etc
- 3) Regional programs
- 4) Disadvantage community funding
- 5) Funding restrictions (regulatory required programs)



## **2015 Proposition 1 WUE Urban Grant Criteria topics**

- 6)Cost share calculation/Cost effectiveness
- 7)Monitoring and evaluation requirements
- 8)Diverse programs or narrow approach
- 9)Directed Action Grant Criteria
- 10)Implementation of CII projects
- 11)Implementation of Landscape Ordinance projects

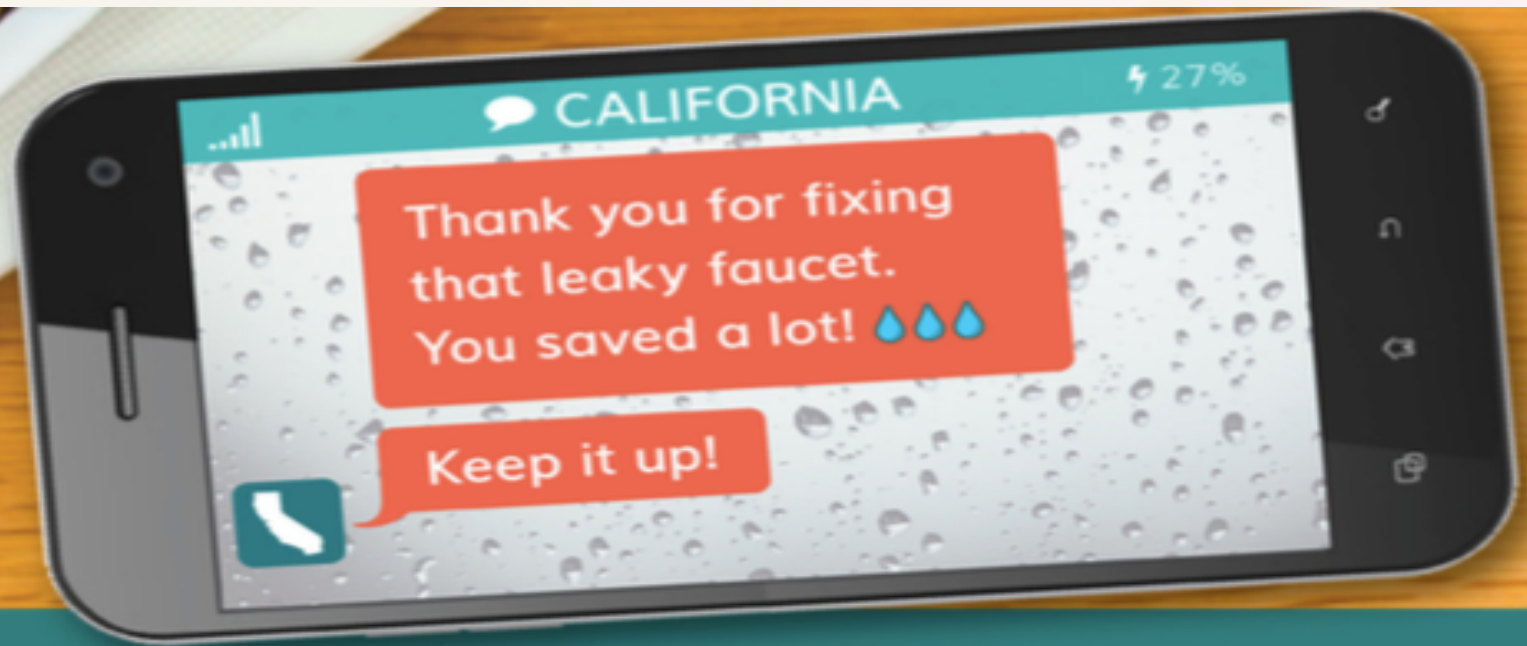




# Dry 2016

- Minimal Project Deliveries
- Temporary Salinity Barrier Installation(s)
- Surface Water Curtailments
- Increased Conservation – Stronger Restrictions
- Increased Mutual Aid and Assistance
- Restrict Groundwater Use to Reduce Impact to Critical Facilities
- Reuse, Recycle, Reclaim

# KEEP SAVING CA



KEEP SAVING  CA  
[saveourwater.com](http://saveourwater.com)

Save Our  
**WATER**





# Conclusion

- **“Make water conservation a way of life.”**  
**- Water Action Plan #1**





## Contact us:

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