

# **Extreme Drought - Impacts on Small Water Systems in California**

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CALIFORNIA  
ENVIRONMENTAL  
PROTECTION  
AGENCY



# 2015 Drought Response in CA

- ❑ Emergency Conservation Regulations
- ❑ Curtailments of Water Rights
- ❑ Mandatory Groundwater Management Programs
- ❑ Drought Emergency Funding Programs
- ❑ Small Water System Assistance

# Emergency Conservation Regulations

- ❑ State Water Board Adopts Emergency Regulation in July 2014 - modified and re-adopted in March 2015
- ❑ Governor Issues Executive Order April 1, 2015  
Requires State Water Board to impose 25 percent reduction in potable urban usage (2013 baseline)
- ❑ State Water Board Adopts Modified Emergency Regulation in **May 2015**



# Emergency Conservation Regulations

- ❑ Prohibited specific water uses
  - Ornamental turf in public medians
  - Landscaping of newly constructed homes
  - Use for decorative fountains, washing sidewalks, etc.
- ❑ Conservation by Urban Water Suppliers
  - 8% to 36% reduction required
- ❑ 25% Reduction for Smaller Suppliers
- ❑ Reporting Requirements
  - Monthly & Annually



# SWRCB: Water Rights Curtailments

## USBR: Reduced Allocations

### □ 2014

- SWRCB- 22 CWS w/Post-1914 water rights curtailed
- USBR: 50% allocation for M&I Users

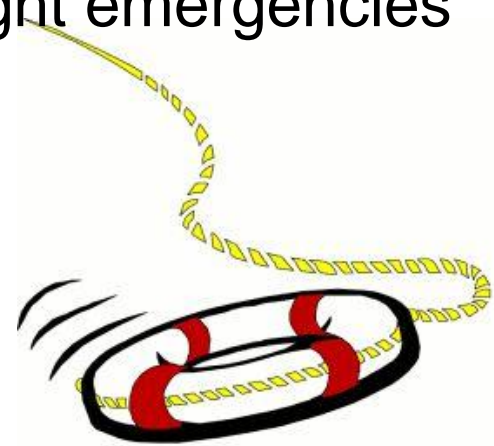
### □ 2015

- SWRCB- Pre-1914 water rights curtailed
- USBR: 25% allocation for M&I Users (Initial)
  - Increased to >50% allocation

**Issue - What is a reliable water supply during extreme droughts for systems relying solely on surface water rights?**

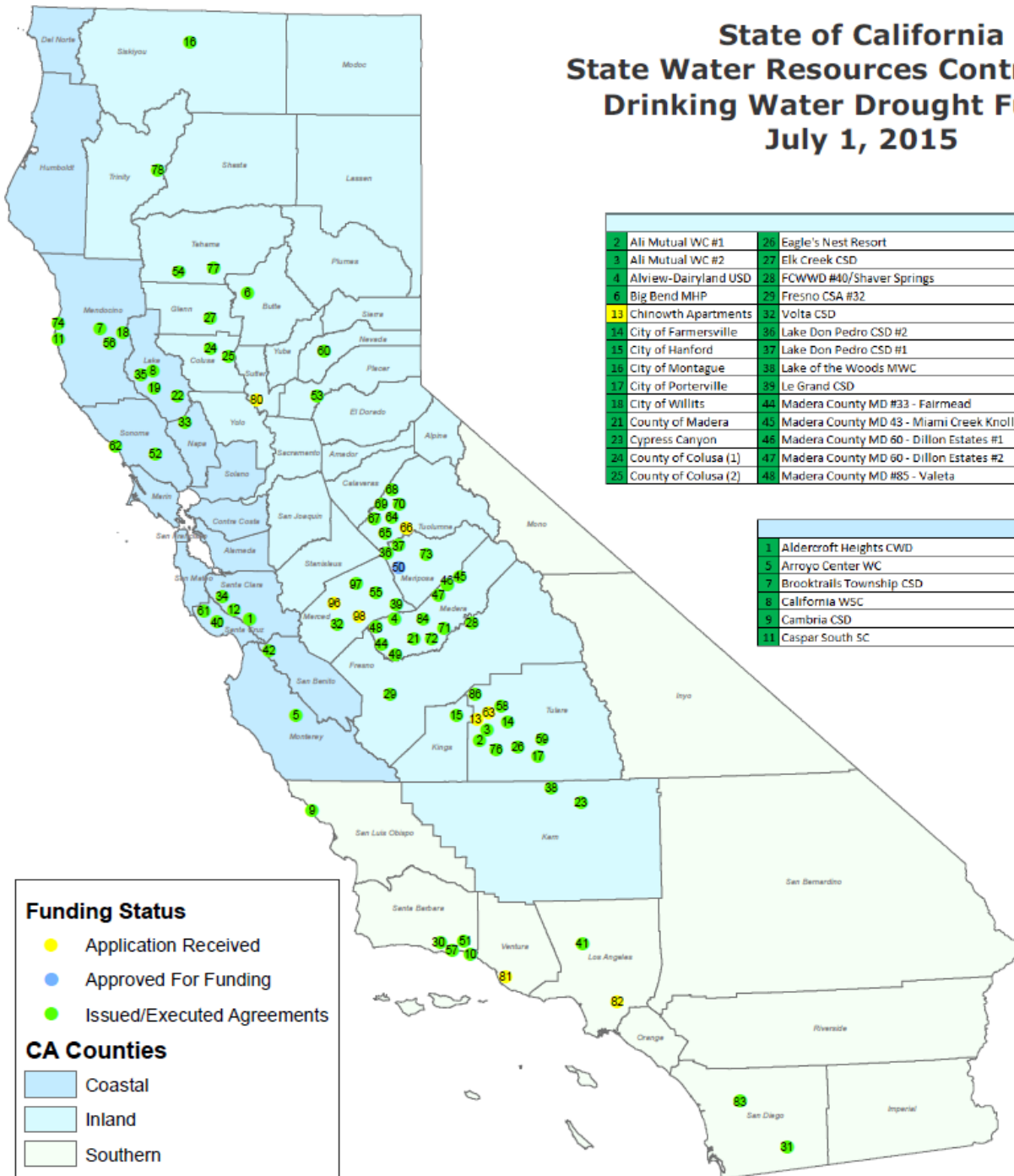
# Drought Emergency Funding

- ❑ **2014 - \$15 M** authorized for drought emergencies
- ❑ **2015 - \$19 M** authorized
  - \$4 M for interim water supplies
  - \$15 M for drought emergencies
- ❑ Can fund:
  - Bottled Water
  - Well Repair, Rehabilitation and Replacement
  - Hauled Water
  - Emergency Interties
  - Treatment





# State of California State Water Resources Control Board Drinking Water Drought Funding July 1, 2015



Inland			
2	Ali Mutual WC #1	26	Eagle's Nest Resort
3	Ali Mutual WC #2	27	Elk Creek CSD
4	Alview-Dairyland USD	28	FCWWD #40/Shaver Springs
6	Big Bend MHP	29	Fresno CSA #32
13	Chinowth Apartments	32	Volta CSD
14	City of Farmersville	36	Lake Don Pedro CSD #2
15	City of Hanford	37	Lake Don Pedro CSD #1
16	City of Montague	38	Lake of the Woods MWC
17	City of Porterville	39	Le Grand CSD
18	City of Willits	44	Madera County MD #33 - Fairmead
21	County of Madera	43	Madera County MD 43 - Miami Creek Knolls
23	Cypress Canyon	46	Madera County MD 60 - Dillon Estates #1
24	County of Colusa (1)	47	Madera County MD 60 - Dillon Estates #2
25	County of Colusa (2)	48	Madera County MD #85 - Valeta
49	Madera County SA #14 - Chuk Chanse	69	Tuolumne UD 5510013 #8
50	McClure Boat Club	70	Twain Harte CSD
53	Ophir Gardens	71	Valley Teen Ranch #1
54	Paskenta CSD	72	Valley Teen Ranch #2
55	Plainsburg Elementary School	73	Whispering Pines Apartments
58	Seville WC	76	London CSD
59	Springville PUD	77	Paskenta CSD (2)
60	Cal Forestry and Fire Protection	78	Lewiston Park MWC
63	Tulare County CWS - Visalia	80	Robbins (Sutter County WWD #1)
64	Tuolumne UD 5510001 #1	84	Madera USD (Dixieland Elementary)
65	Tuolumne UD 5510001 #2	86	Tulare County
66	Tuolumne UD 5510003 #1	96	Hillview WC - Oakhurst/Sierra Lakes
67	Tuolumne UD 5510013 #1	97	Hillview WC - Raymond
68	Tuolumne UD 5510013 #2	98	Hillview WC - Raymond (2)

Coastal			
1	Aldercroft Heights CWD	12	Chemeketa Park MWC
5	Arroyo Center WC	19	Clearwater MWC
7	Brooktrails Township CSD	22	Crescent Bay IC
8	California WSC	33	Lake Berryessa Resort ID
9	Cambria CSD	34	Lake Canyon MWC
11	Caspar South SC	35	Lake County SA #22 - Mt. Hannah
40	Lompico County WD	52	Mt Taylor MHP
42	Los Madrones MWC	56	Redwood Valley CWD
44	Los Madrones MWC	58	Summit MWC
62	Timber Cove CWD	74	Woodside RV Park

Southern	
10	Carpinteria Valley WD
30	Goleta WD
31	Guatay MBC
41	Los Angeles Residential CF
51	Montecito WD
57	Santa Barbara WD
81	Cloverdale MWC
82	City of Pico Rivera
83	Western Water Conser. (Ramona Well 3)

### Funding Status

- Application Received
- Approved For Funding
- Issued/Executed Agreements

### CA Counties

- Coastal
- Inland
- Southern

Regional Totals			
Inland	Coastal	Southern	
1	0	0	1
6	0	2	8
40	19	7	75
56	19	9	Totals

# SWS Drought Experiences

- ❑ Lake Don Pedro – Lake intake issues
- ❑ Cantua Creek – High Cost of Water
- ❑ Orange Center Area – Private Well issues



# SWS Drought Experiences

- Underlying Issue:
  - **Concept of 50 gpcd for Human Health & Safety**



# SWS Drought Experiences: Lake Don Pedro CSD

## Issue: Lake Level Dropping Below Intake & Need to maintain environmental flows

- ❑ Foothill community of 3200 people, 667 sc
- ❑ \$1.25 M Combined funding from:
  - ❑ USDA ECWAG, DWR & SWRCB Emergency Funding
  - ❑ Moved intake via barge for temporary reprieve
  - ❑ Drilled 2 wells, another on the way
- ❑ Issues: CEQA & NEPA for entire project slowed emergency responsiveness

# SWS Drought Experiences: Lake Don Pedro CSD



Lake McClure on March 24, 2015, in La Grange, California. At the time, the lake was at 7 percent of its normal capacity and residents were under mandatory 50 percent water use restrictions. The Lake is projected to run out of water in August.

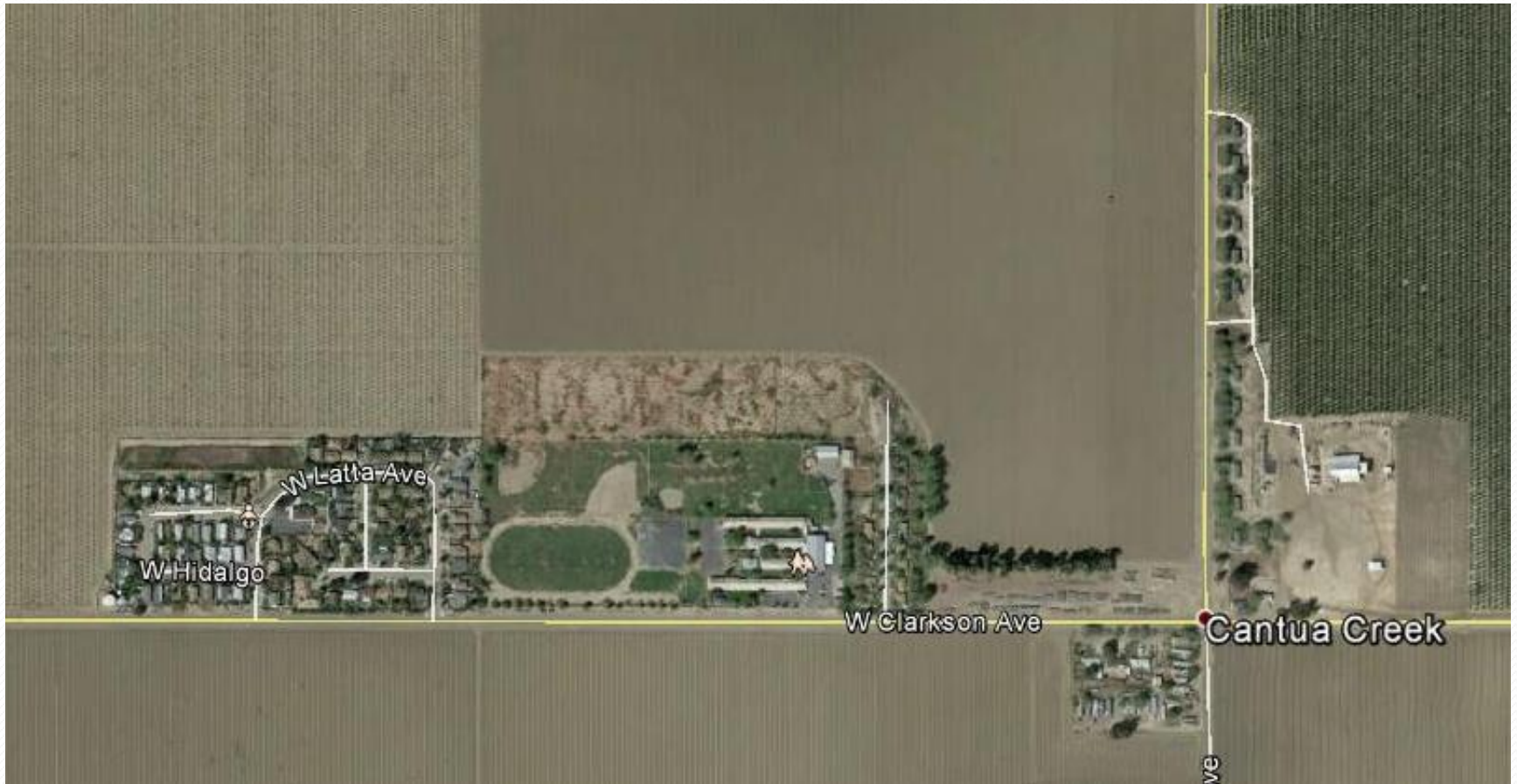
# SWS Drought Experiences: Cantua Creek

## Issue: Unaffordable Cost of Water

- ❑ Rural, severely disadvantaged community
- ❑ 97 residences & 1 school
- ❑ Surface water cost increased:
  - 2013 & Prior: \$348/AF
  - 2014: increased to \$1,144/AF
  - 2015: slight decrease to \$904/AF
- ❑ Emergency grant for 2014 debt plus 2015 supply up to 50 gpcd
- **Concept of 50 gpcd for health & human safety implemented**



# SWS Drought Experiences: Cantua Creek



# Small Community Drought Experiences: Orange Center Area

## Issue: Individual (Private) Wells Going Dry

### ❑ Private Well Community within a City SOI

- 79 homes – >40% dry
- Shallow wells
- Water Table dropped 24 feet in 3 years

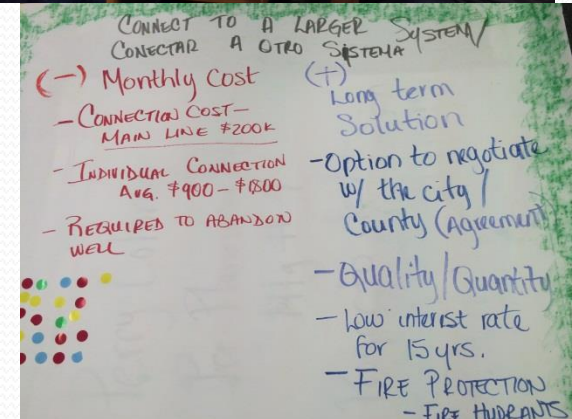
### ❑ Emergency Funding Available –

- USDA ECWAG
- City must apply on behalf of homeowners

### ❑ Needs Majority Homeowner Support

### ❑ Interim – Emergency Water Tanks

- **50 gpcd for health & human safety**





# Small Community Drought Experiences: Private Wells

## Tip of the Iceberg!

- ❑ 2,182 Private Wells reported dry
- ❑ 2,085 are in Central San Joaquin Valley

### ➤ East Porterville

- 1,600 private wells
- 40% dry (>500)
- Water tank filling station
- Portable showers
- Long term planning needed
- Nonprofit organizations critical in assisting residents



# SWRCB Evaluations & Recommendations

- ❑ Evaluate source & storage capacities during sanitary surveys
- ❑ Encourage installation of flow meters on all sources & service connections
- ❑ Encourage installation of emergency interties between adjacent water systems
- ❑ Encourage systems to identify, plan & fund additional local sources of supply
- ❑ Encourage redundant sources of supply
- ❑ Consolidation with larger viable public water system (where feasible)

# Contact Information



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