



growing  
ADVANTAGE  
The Almond Conference

# Water: Policy and Politics

Richard Waycott, ABC (Moderator)

Lester Snow, California Water Foundation

Dorene D'Adamo, State Water Resources  
Control Board

David Orth, Kings River Conservation District

Barry Bedwell, California Fresh Fruit Assoc.



A close-up photograph of several green almonds on a branch, with vibrant green leaves. The background is softly blurred, showing more of the orchard. A small red square is positioned to the left of the text.

# Lester Snow California Water Foundation



# Sustainable Groundwater Management Act

*Almond Board of California • December 10, 2014*



*An initiative of Resources Legacy Fund*

# 2014: Year of Water



Historic Drought



Governor's Water Action Plan



Historic Groundwater Legislation

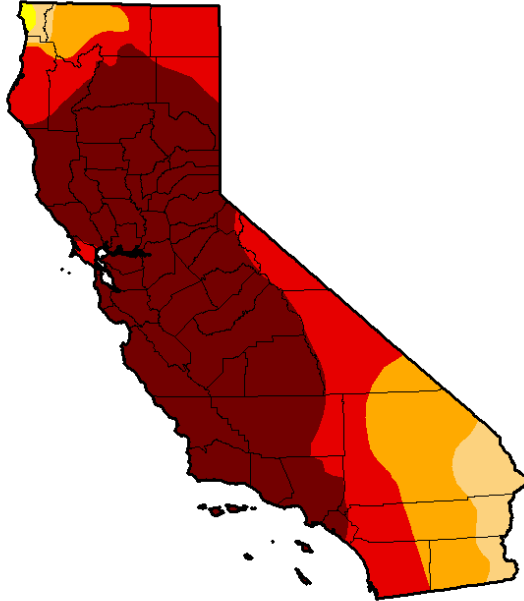


Passage of Proposition 1



# Current Drought Conditions

## U.S. Drought Monitor California



**November 25, 2014**

*(Released Wednesday, Nov. 26, 2014)*

Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	99.72	94.42	79.69	55.08
<b>Last Week</b> <i>11/19/2014</i>	0.00	100.00	99.72	94.42	79.69	55.08
<b>3 Months Ago</b> <i>9/28/2014</i>	0.00	100.00	100.00	95.42	81.92	58.41
<b>Start of Calendar Year</b> <i>1/20/2013</i>	2.61	97.39	94.25	87.53	27.59	0.00
<b>Start of Water Year</b> <i>9/30/2014</i>	0.00	100.00	100.00	95.04	81.92	58.41
<b>One Year Ago</b> <i>11/26/2013</i>	2.61	97.39	94.15	82.53	27.59	0.00

Intensity:



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

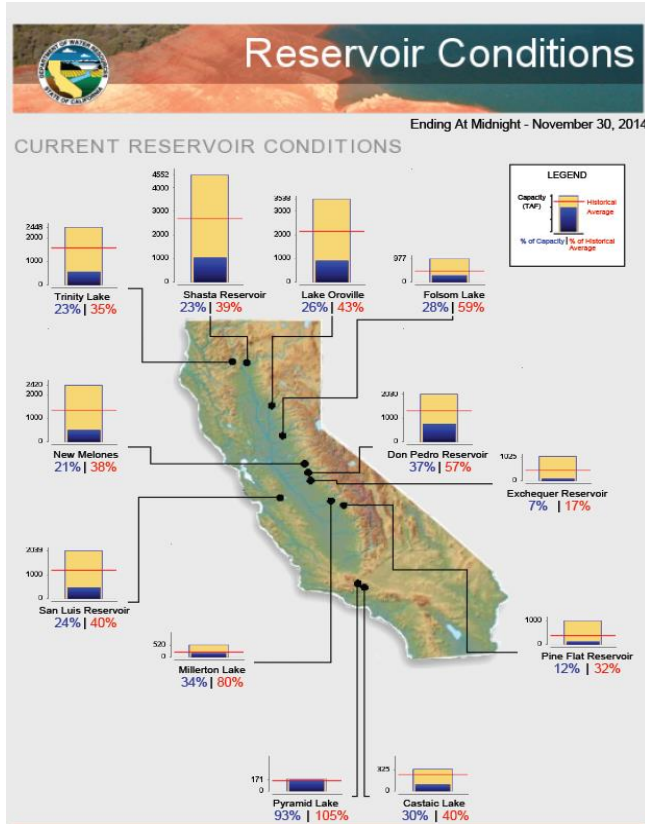
**Author:**

*Eric Luebehusen  
U.S. Department of Agriculture*



<http://droughtmonitor.unl.edu/>

# Storage Conditions



**Lake Oroville April 5, 2014**





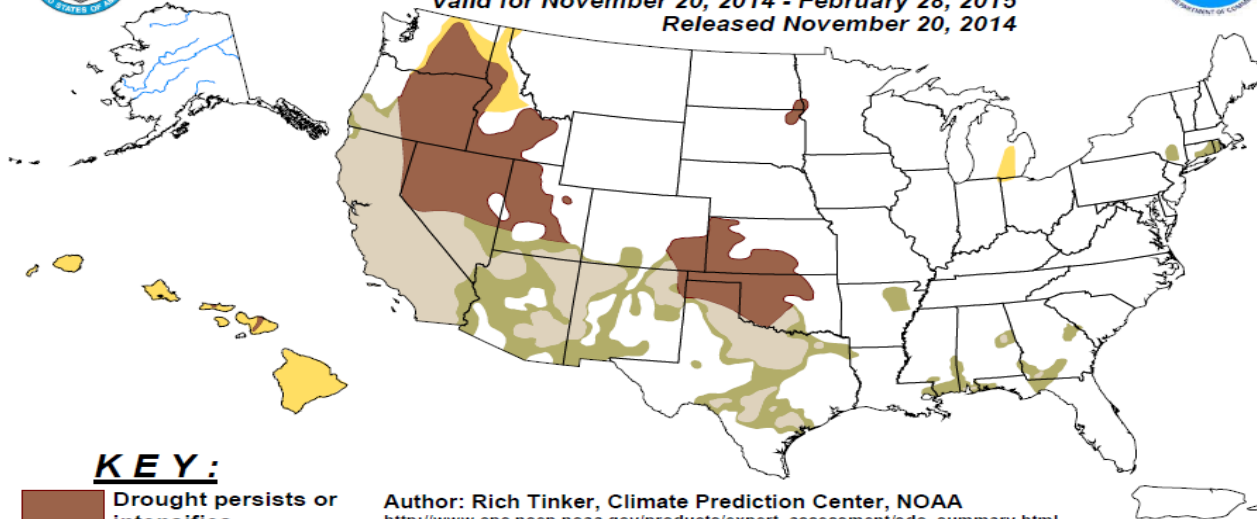
**Lake Oroville November 8, 2014**






# Drought Forecast



## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid for November 20, 2014 - February 28, 2015 Released November 20, 2014



### KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Author: Rich Tinker, Climate Prediction Center, NOAA

[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/sdo\\_summary.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.html)

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)

## Groundwater in Context

- 40% of supply in an average year; 60% in dry
- Critical part of integrated management
- Flexible source for storage and use



## Groundwater in Context

- Several decades of increasing use
  - Reduction in surface supplies
  - Hardening of demand
- Increasing landowner conflicts



## Problems With Overdraft

- Subsidence threatens infrastructure
- Reduced water for species
- Reduced surface supplies
- Increased drilling/pumping costs
- Increased costs for taxpayers, business, farmers



## Sustainable Groundwater Management Act (SGMA)

- Fundamental change in groundwater management
- Sustainability Goal (20 years with 5 year milestones)
- Local Empowerment
  - Local authorities to manage groundwater
  - Local agency formation (Groundwater Sustainability Agencies, GSAs)
  - Local plans (Groundwater Sustainability Plans, GSPs)
  - “Exempts” adjudicated basins
- State Role
  - Assistance (financial and technical)
  - Plan Review
  - Back-Stop

## Time Frame for Success

Time	Action
6/30/2017	Formation of GSAs
1/31/2020	Completion of GSPs in critically overdrafted basins
1/31/2022	Completion of GSPs in all other basins
20-year implementation period	Implementation of GSPs under local management

Taking these actions shields local managers from state intervention

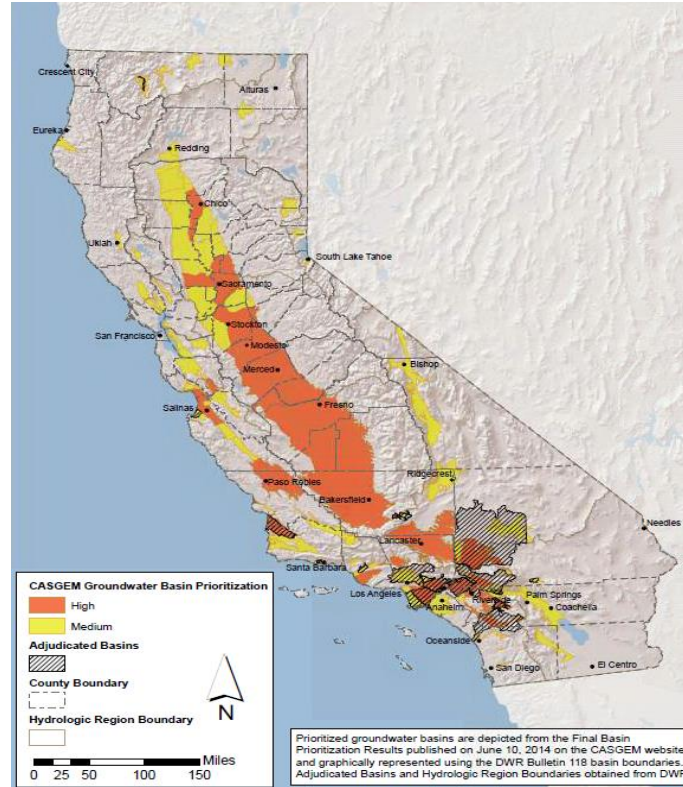
## The “Backstop” State Board Intervention

After	Cause of Intervention
6/30/2017	No GSAs
1/31/2020	In critically overdrafted basins, no GSA or GSP is inadequate
1/31/2022	In other basins, no GSA or GSP inadequate and basin in long-term overdraft
1/31/2025	GSP is inadequate and significant depletions of interconnected surface waters

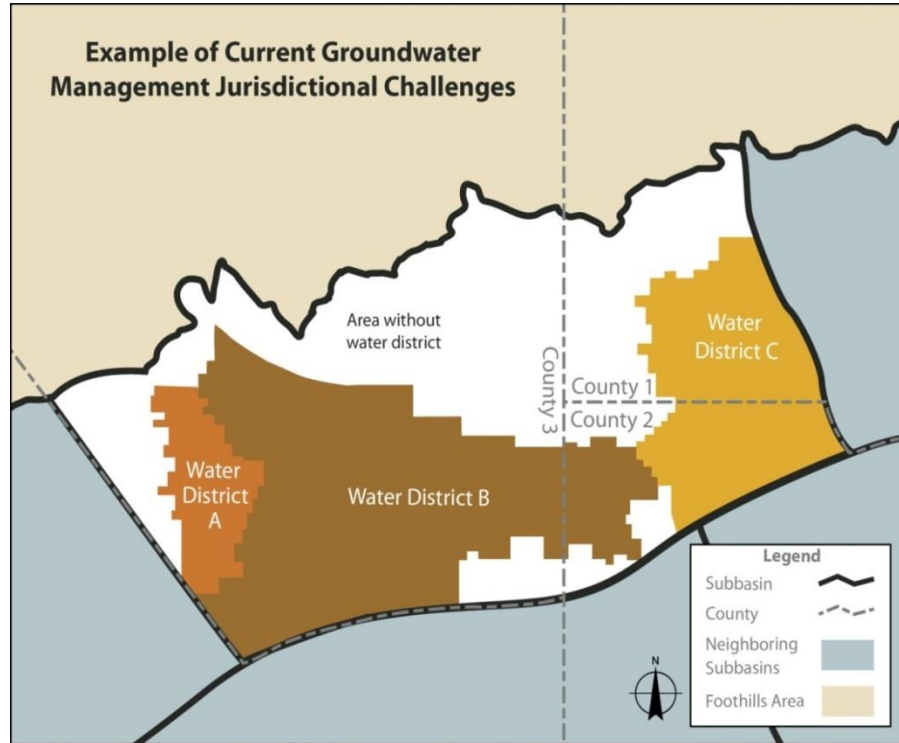
In all triggering events, interventions is the result of a failure by the locals to create a GSA and adopt and implement a GSP.



# CASGEM Groundwater Basin Prioritization



# Jurisdiction Formation

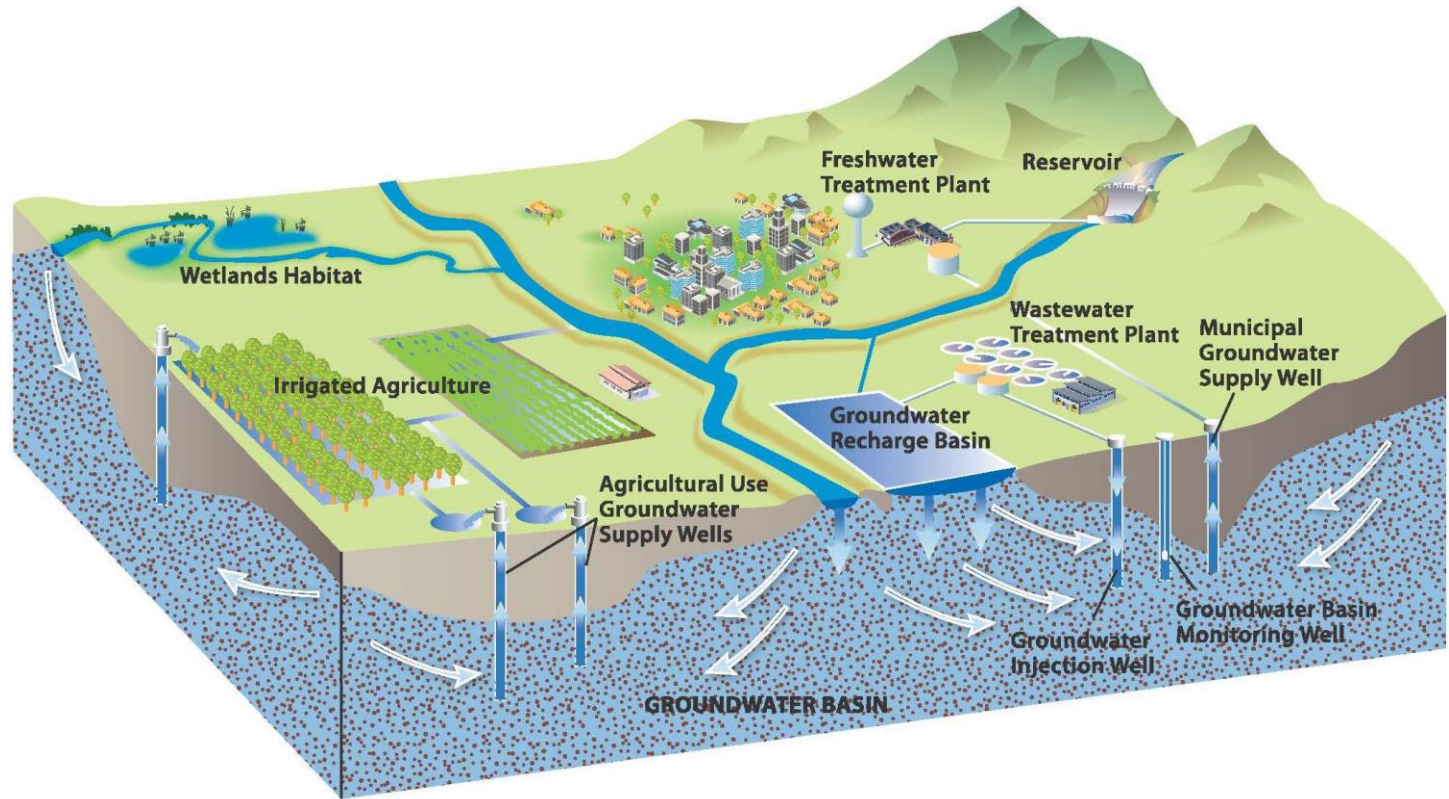


# 2015 Issues and Opportunities

- Drought Conditions
- SGMA Implementation
- Bond Implementation
- Bay Delta Conservation Plan (BDCP)



# Integrated Water Management



# Dorene D'Adamo

## State Water Resources Control Board



# Beyond Drought: California Water Action Plan & Sustainable Groundwater Management

The Almond Conference  
December 10, 2014  
Sacramento Convention Center

DeeDee D'Adamo, Board Member  
State Water Resources Control Board

[www.waterboards.ca.gov](http://www.waterboards.ca.gov)



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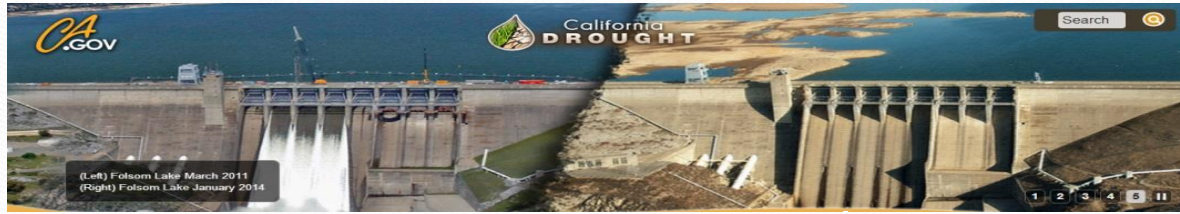
State Water Resources Control Board

# Big Year for California Water

- Administration Outlines California Water Action Plan
- Prop 1- Water Bond
- Groundwater Legislation Passed and Signed by the Governor

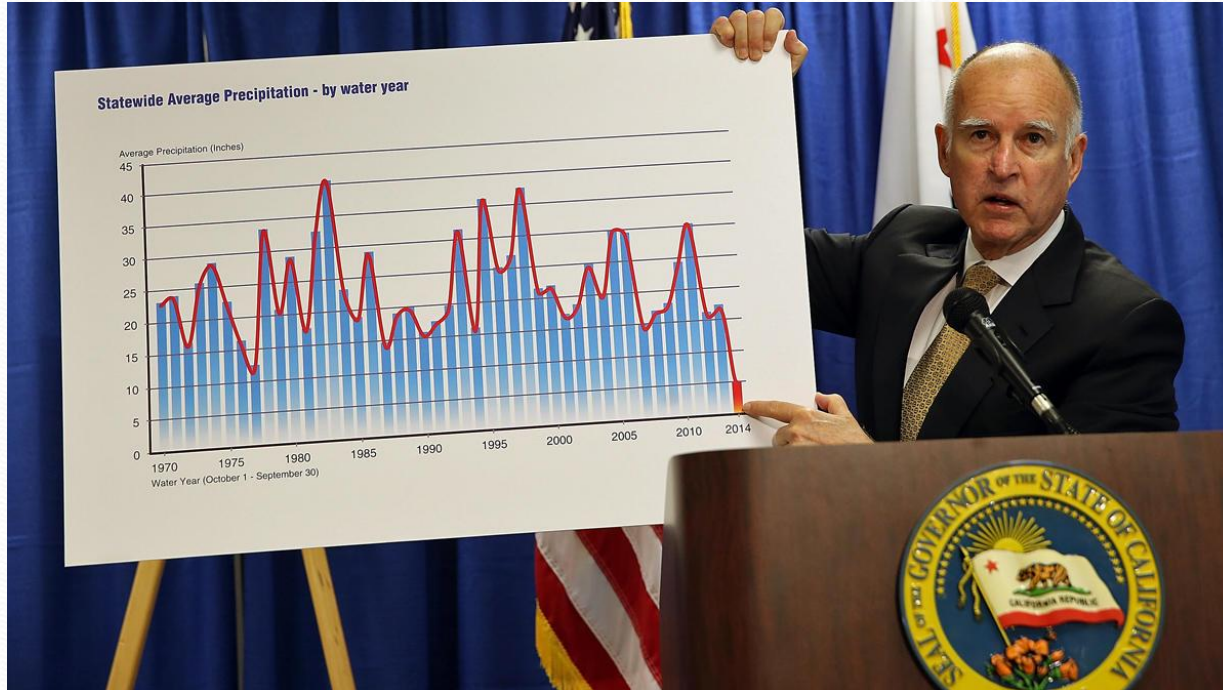


# Extended 3 Year Drought





# Emergency Response



# The Sustainable Groundwater Management Act of 2014

- Requires sustainable groundwater management
- Promotes local control

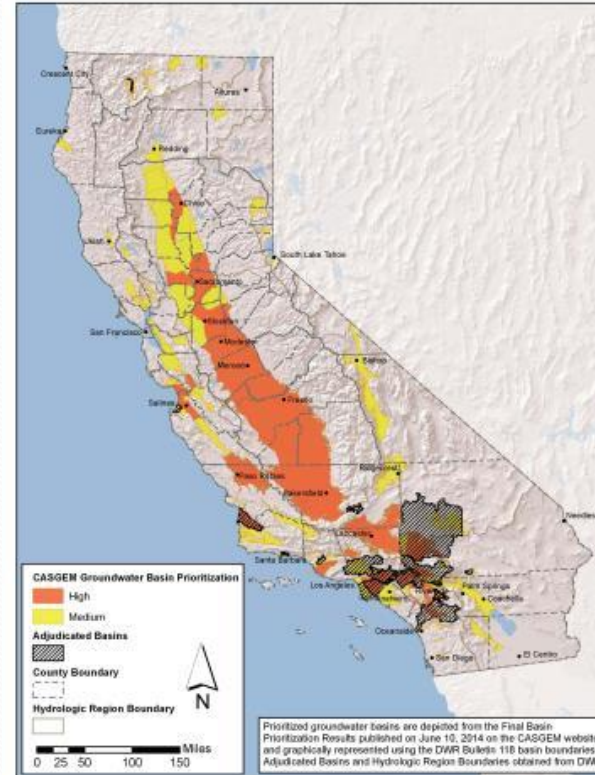


# Key Principles:

- Groundwater best managed at the local/regional level
- Groundwater needs to be managed sustainably
- Local agencies should have necessary authority & tools
- State assistance and oversight – intervention only when needed

# The Sustainable Groundwater Management Act of 2014

- Requires Groundwater Sustainability Plans in high- and medium-priority basins
- Authorizes management tools for local agencies
- Creates state “backstop”
- Defines time frame for accomplishing goals



# New Local Management Tools

- Requires creation of “Groundwater Sustainability Agencies”
- Empowers GSAs to:
  - Register groundwater wells
  - Measure extractions
  - Require reports
  - Manage extractions
  - Assess fees
- Exempts preparation of local groundwater sustainability plans from CEQA
- Establishes “sustainability goal” over time to guide management



# Time Frame for Success

Time	Action	
6/30/2017	Formation of GSAs	<input checked="" type="checkbox"/>
1/31/2020	Completion of GSPs in critically overdrafted basins	<input checked="" type="checkbox"/>
1/31/2022	Completion of GSPs in all other basins	<input checked="" type="checkbox"/>
20-year implementation period	Implementation of GSPs under local management	<input checked="" type="checkbox"/>

**These actions shield local managers from state intervention**

# “Backstop” - State Board Intervention

After	Cause of Intervention
June 30, 2017	No GSA
Jan. 31, 2020	In critically overdrafted basins, no GSP or GSP is inadequate
Jan. 31, 2022	In other basins, no GSP or GSP is inadequate and basin is in long-term overdraft
Jan. 31, 2025	GSP is inadequate and significant depletions of interconnected surface waters

**In all triggering events, intervention is the result of a failure by the locals to create a GSA and adopt and implement a GSP.**

# Undesirable Results:

- Chronic lowering of groundwater levels (not including overdraft during a drought, if a basin is otherwise managed); **AND**
- Significant and unreasonable:
  - reductions in groundwater storage
  - seawater intrusion
  - degradation of water quality
  - land subsidence
  - surface water depletions adversely impacting beneficial uses



# PREPARING FOR THE FUTURE

## California Water Action Plan



# Increase Regional Self-Reliance & Integrated Water Management



# Expand Water Storage Capacity & Improve Groundwater Management



FIGURE 8: OCWD GROUNDWATER RECHARGE SITE (SOURCE: OCWD)

# Thank you



## 20% REDUCTION in water use look like?



uses 196 gallons of water per day. Here are some easy ways to reduce water use. Find the right combination for you to reduce by 20% or 38 gallons a day.

**196  
GALLONS  
PER DAY**



INSTALL AERATORS ON  
BATHROOM FAUCETS  
*saves*

**1.2 GALLONS**  
per person/day



WASH ONLY FULL LOADS  
OF CLOTHES  
*saves*

**15-45 GALLONS**  
per load



TURN OFF WATER WHEN  
BRUSHING TEETH OR  
SHAVING  
*saves*

**10 GALLONS**  
per person/day



TAKE FIVE MINUTE  
SHOWERS INSTEAD OF  
10 MINUTE SHOWERS  
*saves*

**12.5 GALLONS**  
with a water efficient showerhead




FILL THE BATHTUB HALFWAY  
OR LESS  
*saves*



INSTALL A WATER-EFFICIENT  
SHOWER HEAD  
*saves*





**David Orth**  
**Kings River Conservation District**



## Sustainable Groundwater and Surface Storage

David Orth,  
Kings River Conservation District

# Groundwater Legislation – Key Objectives

- Local Management
- Groundwater Sustainability Plans
- Land Use Coordination
- Link Groundwater Sustainability to Surface Water Enhancement
- State Technical Support
- State Oversight/Intervention
- Respect Surface Water and Private Property Rights

# Groundwater Legislation - Issues and Challenges

- Lack of a Common Understanding
- Engage Stakeholders in Organization and Planning
- Align Basin Boundaries with “Reality”
  - Impact of neighboring Basin activity
- DWR Rulemaking to clarify terms, processes, etc.
- Groundwater Sustainability Agency Creation
  - Role of water agencies
  - Role of counties
- Groundwater Sustainability Plan Development
  - Data collection
- Reasonable Timelines???
- Litigation Threat???



# Next Steps

- Local Outreach and Communication
  - Clear understanding of the Act
  - GSA formation – 6/30/17
  - GSP development – 1/31/2020 (and later)
  - GSP implementation – Sustainability within 20 years
- Rulemaking and Regulations
- 2015 Legislation ??
  - Technical cleanup
  - Expedited adjudication

# California Surface Storage

- Surface reservoir storage capacity 42 million acre feet
  - Federal has 11 million acre feet of storage capacity (Central Valley Project) – delivers about 7 MAF/year
  - State has 5.8 million acre feet of storage capacity (State Water Project) – delivers about 2.3 MAF/year
  - Local – ( i.e. Pine Flat, Terminus, Success, Isabella)
- Average annual runoff approximately 71 million acre feet (DWR 1998)

# Future Storage

- State and Federal Projects (collectively add about 4.5 MAF to total storage capacity)
  - Shasta Dam and Reservoir Enlargement
  - Sites Reservoir (North-of-the-Delta Offstream storage)
  - Los Vaqueros Reservoir Expansion
  - Temperance Flat Reservoir (upper San Joaquin River Basin),
- Regional surface and groundwater storage projects
- More than 27 million acre feet of new surface and groundwater storage projects are being considered statewide
- How much can we afford to capture?

# California Groundwater Facts

- 431 groundwater basins delineated
  - 24 basins subdivided into 108 subbasins giving a total of 515 distinct groundwater systems
- 850 million to 1.3 billion acre feet of groundwater storage (DWR 1994)
  - Approximately 149 to 450 million acre feet is estimated to be useable
- About 250 million acre feet of groundwater storage capacity is available statewide
  - 170 million acre feet of that 250 is in the Central Valley
- Annual groundwater extractions average about 16.5 million acre feet
  - 39% of state's total water supply
- Overdraft between 1 and 2 million acre feet annually (DWR 2003)

# Groundwater Storage - Maximize Recharge

- More surface storage to control peak flows
- More dedicated recharge basins
- Expand Conveyance Capacity
- On-farm flood water utilization



**Barry Bedwell,  
California Fresh Fruit Association**



## Water: Policy and Politics

Wednesday, December 10, 2014

Sacramento Convention Center

Barry Bedwell, President

California Fresh Fruit Association

### THE ALMOND CONFERENCE





## Background of the Association

- Origins dating back to 1921; Growers & Shippers Protective League and Table Grape Growers & Shippers Association
- Voluntary, non-profit representing about 85%, by volume, fresh permanent crops with the exception of avocados and citrus
- Membership ranges from Coachella Valley to Lake County
- Primary public policy advocate in Sacramento & DC
- Different from mandatory commissions
- Changed name to California Fresh Fruit Association in Aug 2014 formally California Grape and Tree Fruit League





## The Lack of Water and What Has Changed Since Landmark Drought of 1977

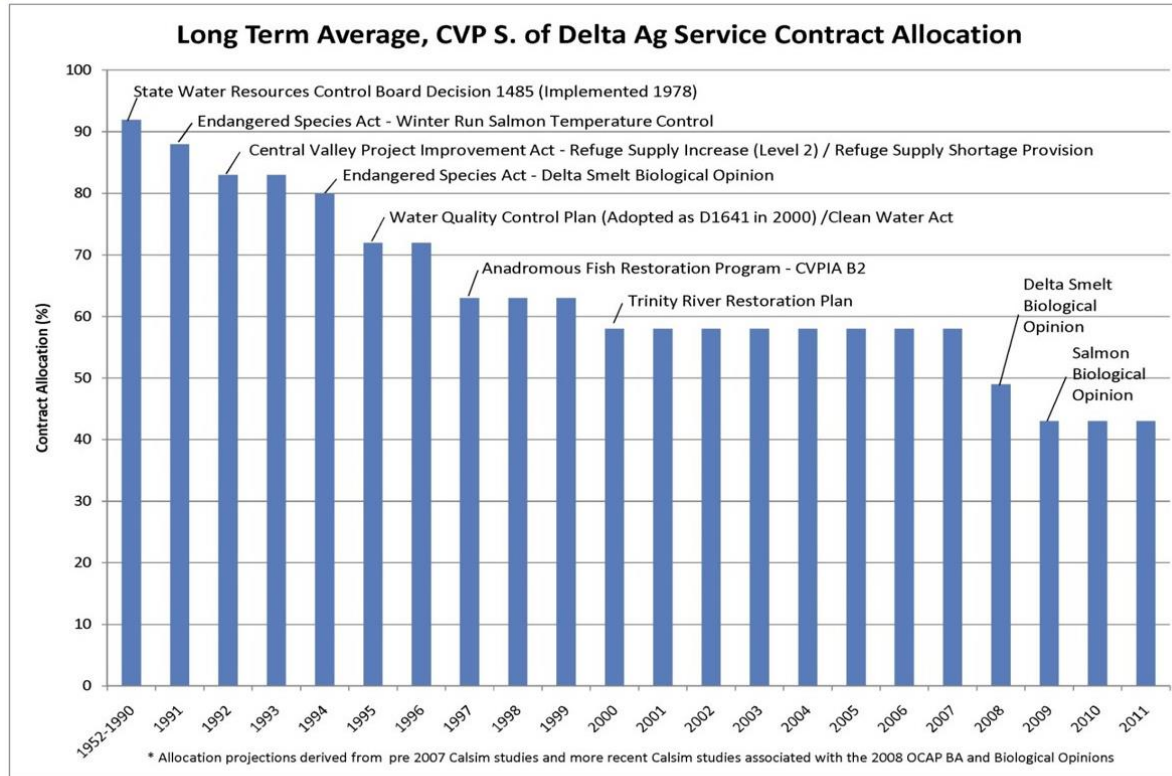
- In 1977 there were 22 Million Californians, today 38 Million [+16,000,000 an increase of 72%]
- In 1977 our per capita income was \$8,500, today \$42,500 [+\$34,000 an increase of 400%]
- In 1977 gross farm revenue was \$9.6 Billion, today \$45 Billion [+\$35,400,000,000 an increase of 368%]
- Since 1977 a multitude of government regulatory and policy decisions have placed a raft of “priority environmental uses” ahead of historic human needs and have reduced the average water supply for CVP South of Delta Ag Service Contractors from 90% reliability to 40% reliability.



# Environmental Edicts Impacting Water Supply

- 1978 State Water Resources Control Board Dec 1485
- 1991 ESA Winter Run Salmon Temperature Control
- 1992 Central Valley Project Improvement Act
- 1994 ESA Delta Smelt Biological Opinion
- 1995 Water Quality Control Plan re Clean Water Act
- 1997 Anadromous Fish Restoration Plan
- 2000 Trinity River Restoration Plan
- 2008 Delta Smelt Biological Opinion v2
- 2009 Salmon Biological Opinion

# How 50% of the Available Water Goes to Environmental Purposes





## Chronology of Federal Legislation

- February 5, 2014 House passes HR 3964 Sacramento-San Joaquin Valley Emergency Water Delivery Act authored by Congressman Valadao (CA 21)
- May 22, 2014 Senate passes S 2198 Emergency Drought Relief Act authored by Senator Feinstein
- November post election negotiations to reconcile bills make impressive progress
- Environmentalists and their elected representatives say that Senator Feinstein crafting “secret water deal”; editorials follow



## Chronology of Federal Legislation

- November 20, 2014 Senator Feinstein announces that “we will be unable to present an agreed-upon proposal before Congress adjourns this year”; says that she will introduce bill in January under regular order
- On Tuesday, December 2, 2014, Congressman Valadao (CA-21), with the support of Congressman Costa (CA-16) and California House Republicans, introduce water legislation in the U.S. House of Representatives aimed at providing short- term relief



## Take Away Messages

- The prospect for meaningful relief via Federal legislation has been materially diminished
- On the positive side, the key relationship between Senator Feinstein and Congressman Nunes is improving
- Representatives Valadao, Denham, Costa and McCarthy continue to provide critical support for the issue
- The chances to “change” or “amend” the ESA are slim; “update” may be a more appropriate term
- State regulation through the Sustainable Groundwater Management Act is a key challenge to the future
- The conjunctive use of water must be fully understood and promoted by production agriculture
- The almond community should understand the target on their back and be prepared to respond in a positive manner

**Thank You for Your Time and Attention**



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