



Water Education Foundation

Executive Briefing , March 25, 2015

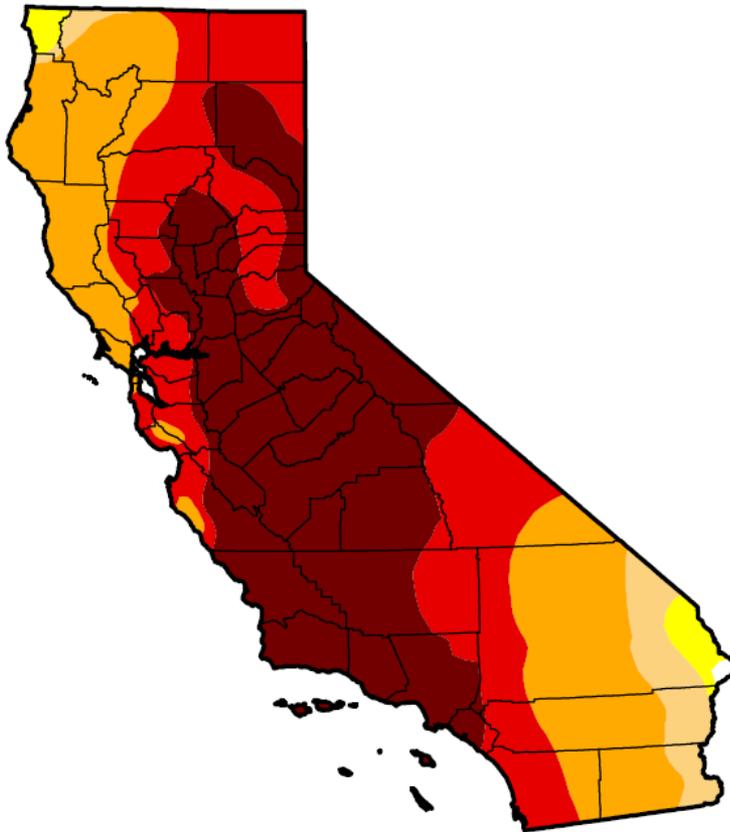
CALIFORNIA

WATER
FOUNDATION®

An initiative of Resources Legacy Fund

Current Drought Conditions

U.S. Drought Monitor California



March 3, 2015

(Released Thursday, Mar. 5, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.16	99.84	98.10	93.44	67.46	39.92
Last Week <i>2/24/2015</i>	0.16	99.84	98.10	93.44	67.46	39.92
3 Months Ago <i>12/2/2014</i>	0.00	100.00	99.72	94.42	79.69	55.08
Start of Calendar Year <i>12/30/2014</i>	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year <i>9/30/2014</i>	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago <i>3/4/2014</i>	0.00	100.00	94.56	90.82	65.89	22.37

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

Author:

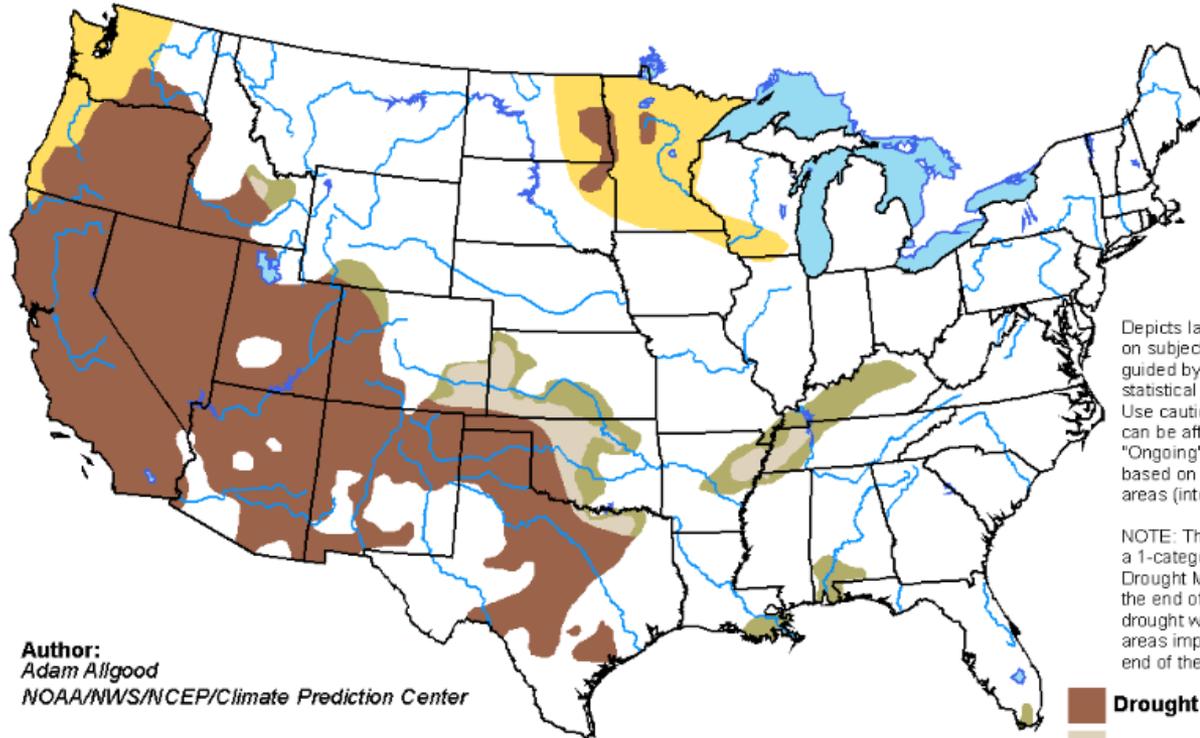
David Simeral
Western Regional Climate Center



Current Drought Conditions

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for February 19 - May 31, 2015
Released February 19, 2015

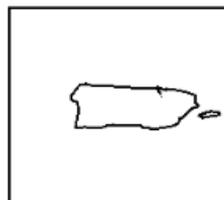
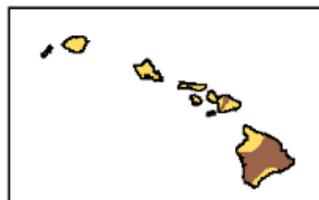
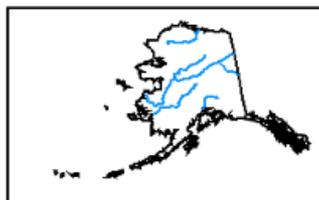


Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

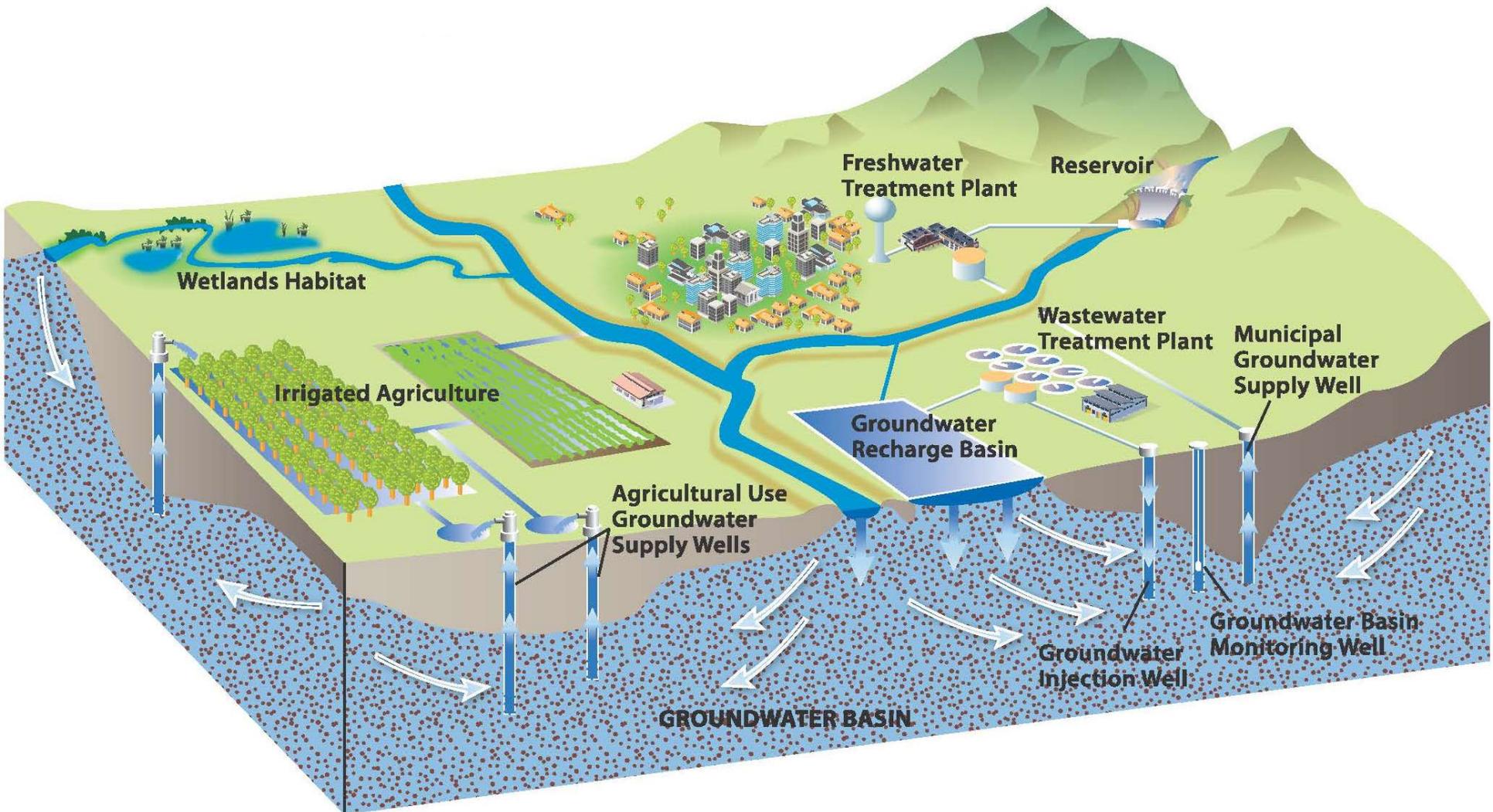
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  **Drought persists/intensifies**
-  **Drought remains but improves**
-  **Drought removal likely**
-  **Drought development likely**



<http://go.usa.gov/hHTe>

Integrated Water Management

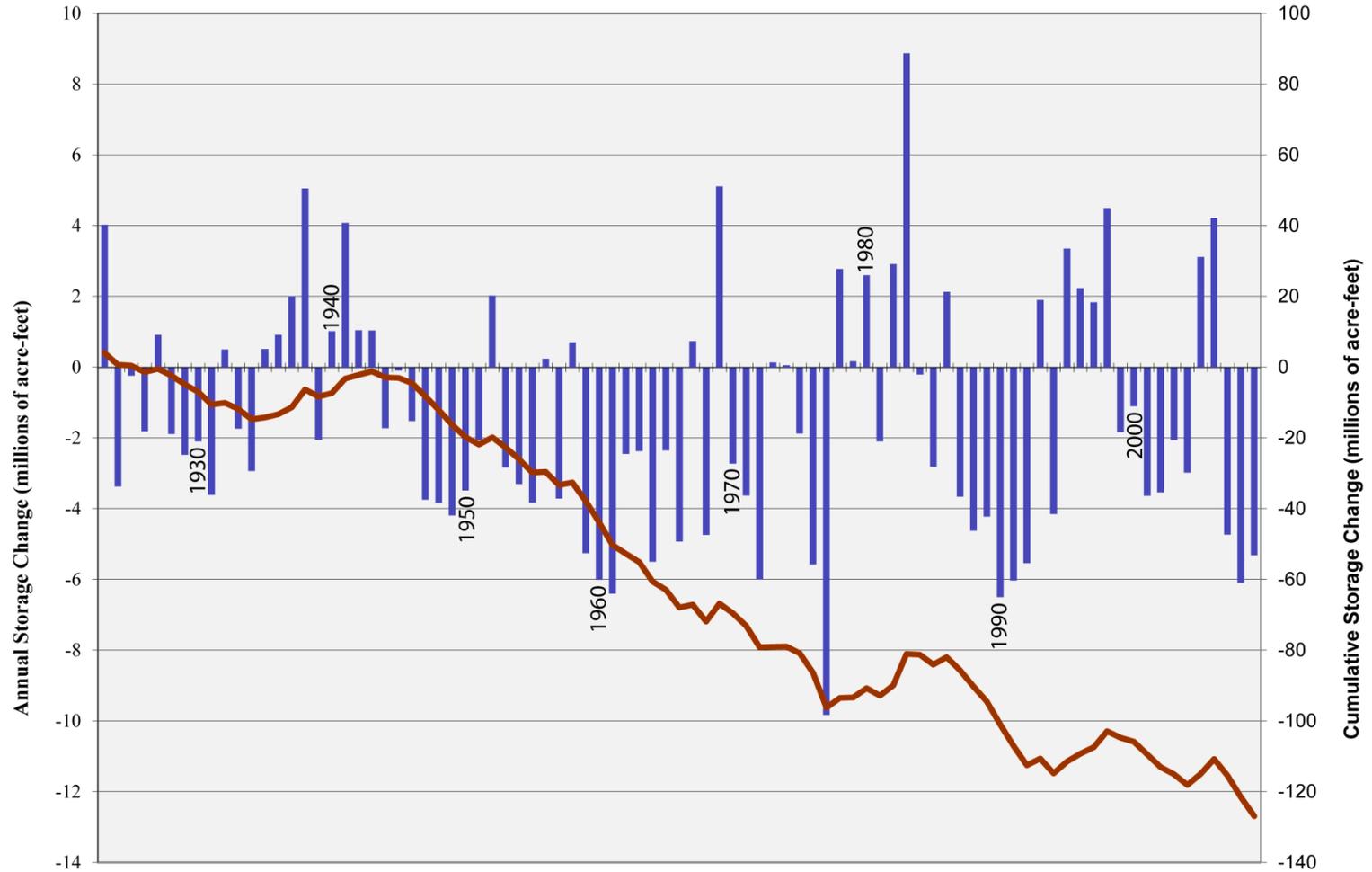


Groundwater in Context

- About 40% of supply in an average year; 60% in dry
- Many urban/rural areas 100% dependent
- Critical part of integrated management
- Excellent Drought Buffer (at risk)
- Groundwater overdraft Impacts



Change in Groundwater Storage for the Central Valley



Source:
RMC analysis of C2VSIM historical simulation results, 2012.

■ Annual Storage Change

— Cumulative Storage Change

Problems With Overdraft

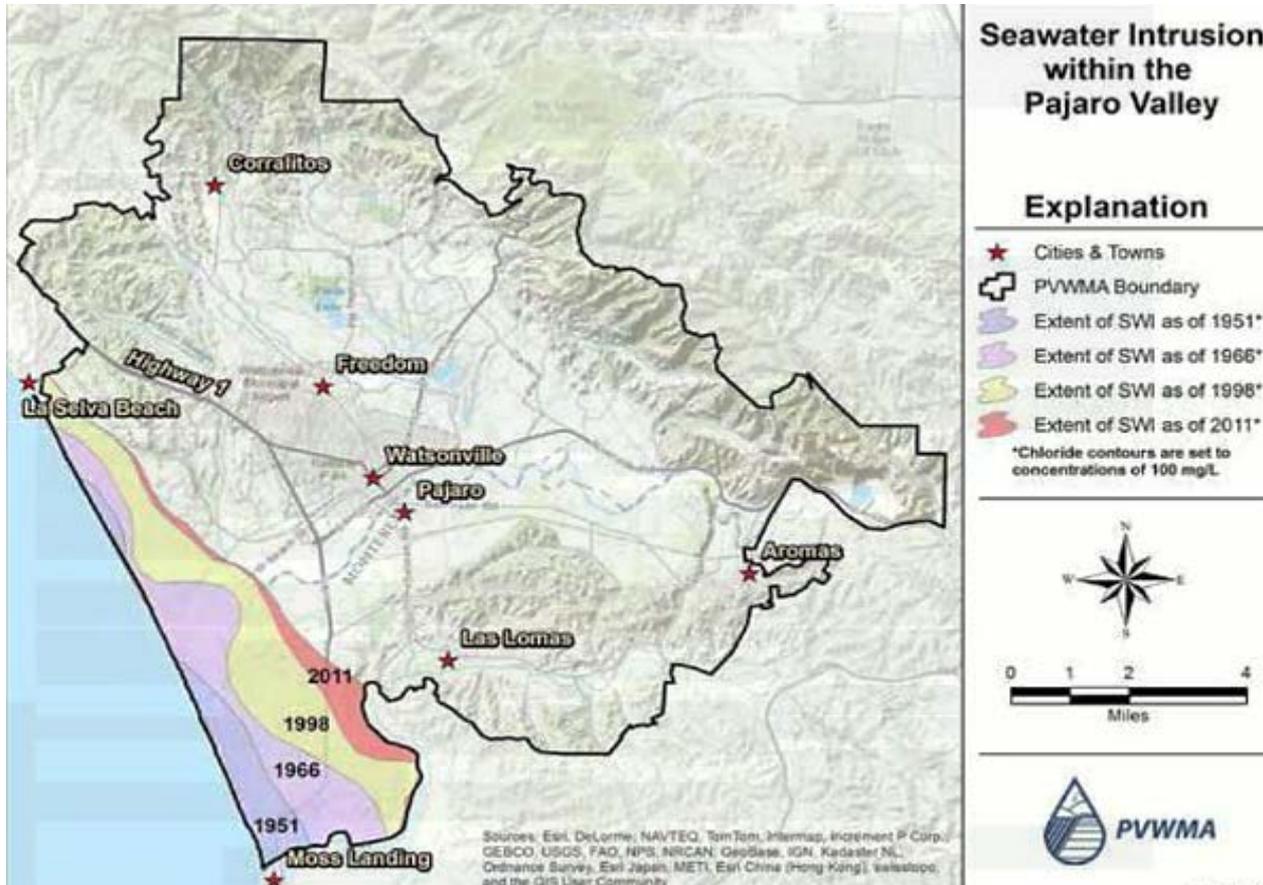
- Subsidence threatens infrastructure
- Reduced surface water flow/ecosystem impacts
- Reduced surface supplies
- Increased drilling/pumping costs/ghg emissions
- Increased costs for taxpayers, business, farmers



Problems with Overdraft



Problems with Overdraft



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 (GSAs)
 - Local plans (GSPs)
 - “Exempts” adjudicated basins
 - State Role
 - Assistance (financial and technical)
 - Plan Review
 - Back-Stop
- 

Sustainability: Manage groundwater to prevent undesirable results (significant & unreasonable):

- Chronic lowering of groundwater levels
 - Reduction of groundwater storage
 - Seawater intrusion
 - Degraded water quality
 - Land subsidence
 - Depletions of interconnected surface water
- 

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

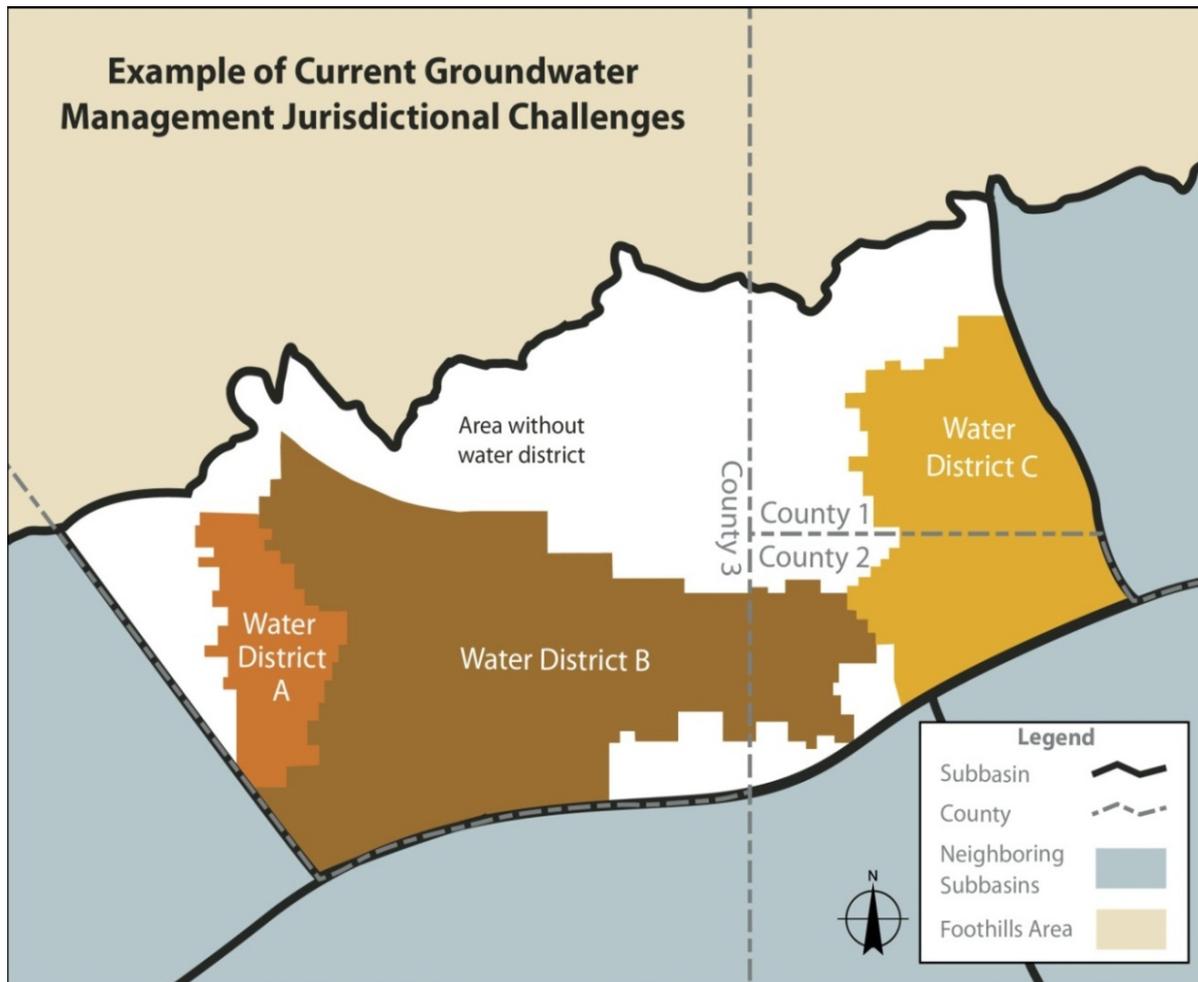
After	Cause of Intervention
6/30/2017	No GSAs
1/31/2020	In critically overdrafted basins, no GSA or GSP is inadequate
1/31/2022	In other basins, no GSA or GSP inadequate and basin in long-term overdraft
1/31/2025	GSP is inadequate and significant depletions of interconnected surface waters

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

Comprehensive legislation to manage groundwater to sustainable levels

- High and Medium Priority Basins
 - Formation of a GS Agency
 - Preparation of GS Plan
 - Basin conditions & water budget
 - Measurable objectives & 5-year milestones
 - Achieve sustainability in 20 years
- 

Jurisdiction Formation

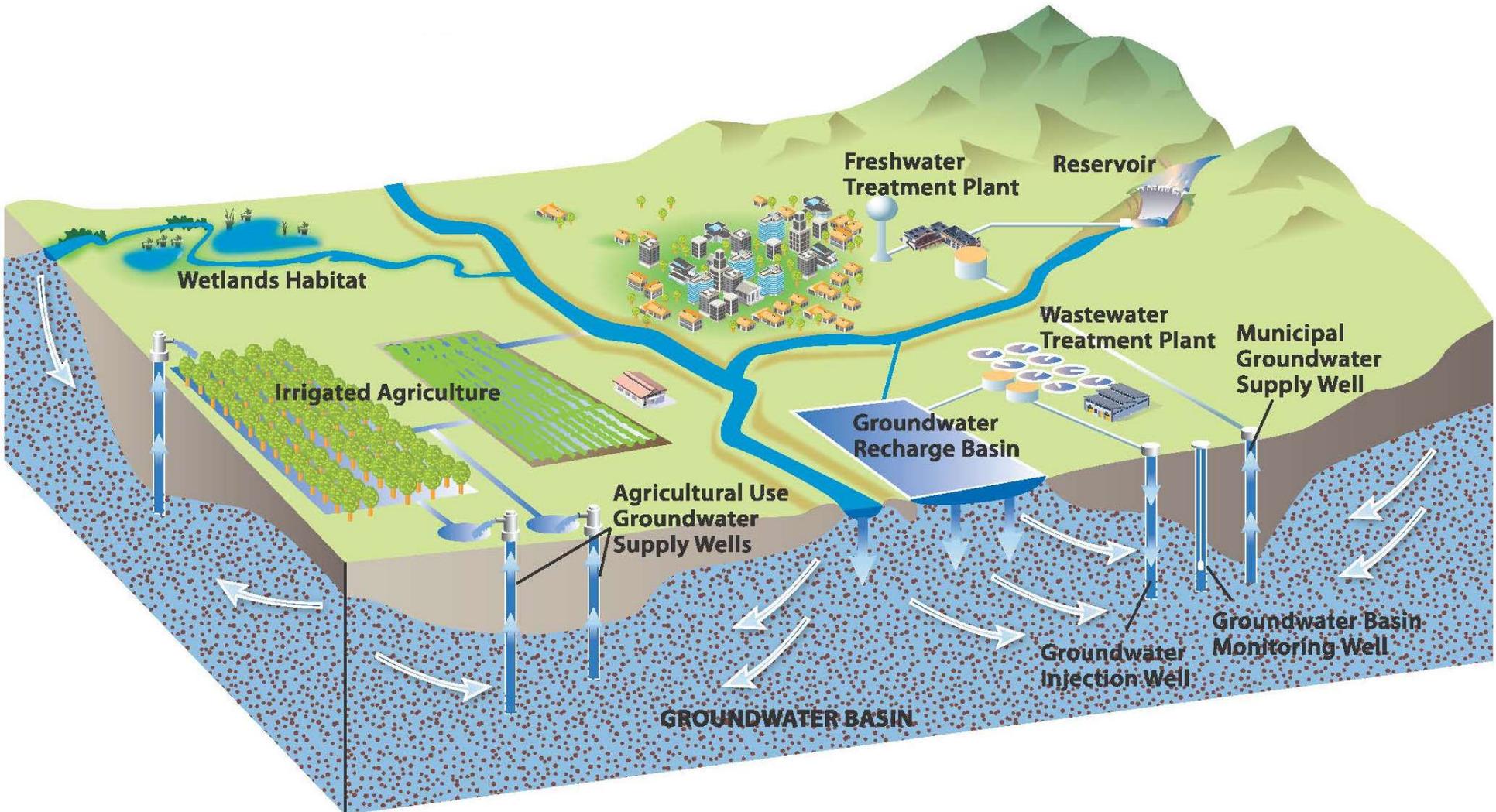


Groundwater Management Must Be Part of Statewide Comprehensive Program

- Local managers cannot tackle this problem alone
Groundwater sustainability will require action at the state and federal level
- We must act on a comprehensive plan
- The governor's California Water Action Plan and Proposition 1 are a good start



Integrated Water Management



Groundwater in Context

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



CASGEM Basin Prioritization

