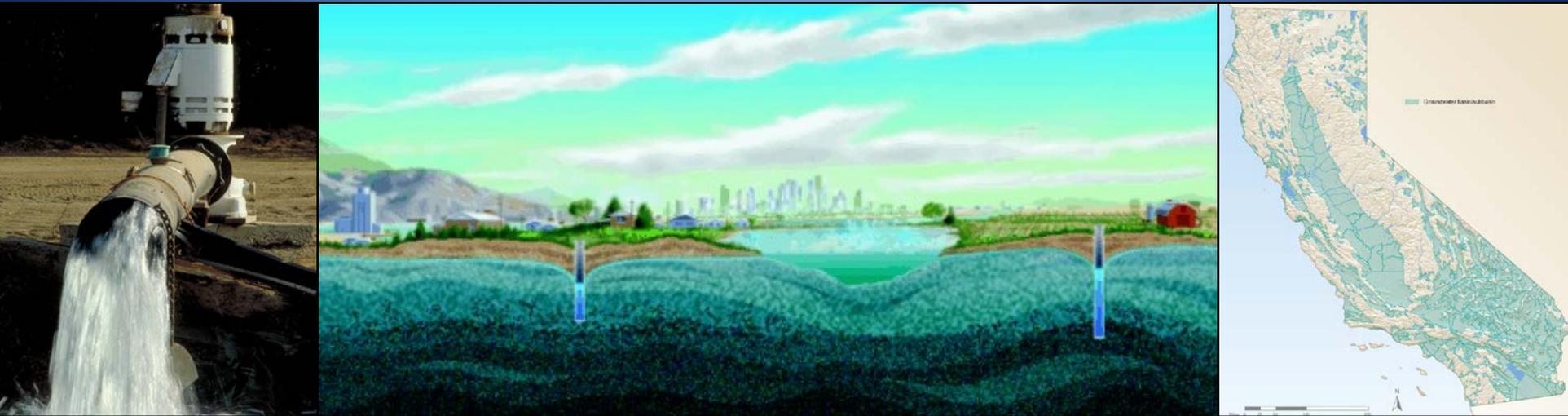


# DWR's Sustainable Groundwater Management Implementation

## *-Basin Boundary Regulations Update-*



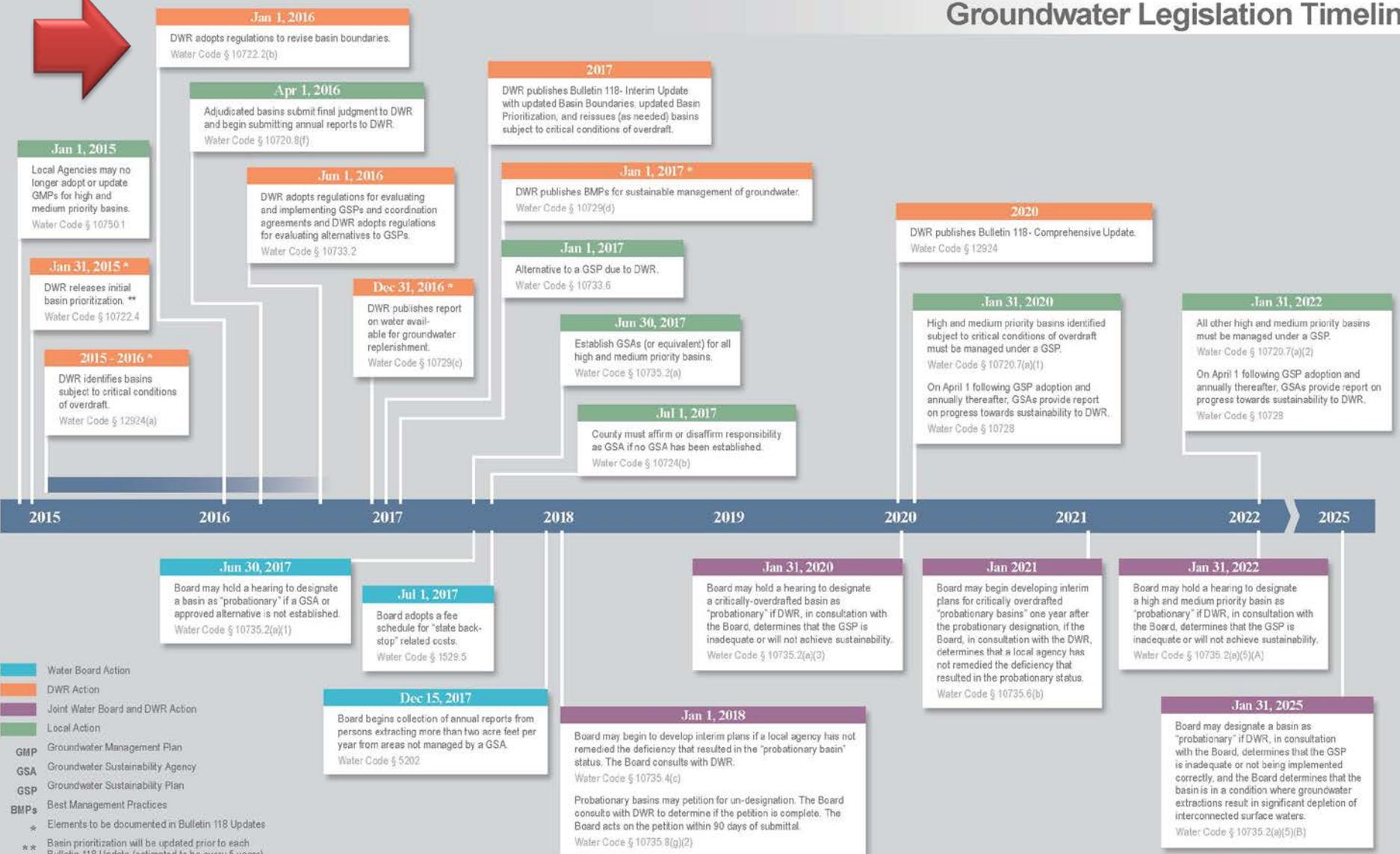
California Water Commission  
April 15, 2015  
Fresno, CA

# Presentation Overview

- **Background - SGMA Requirements**
- **Groundwater Basin Overview**
- **Communication and Engagement**
- **Summary of Boundary Issues**
- **Proposed Boundary Regulation Goal and Potential Characteristics**
- **Future Steps**

# SGM Timeline

## Groundwater Legislation Timeline



- Water Board Action
- DWR Action
- Joint Water Board and DWR Action
- Local Action
- GMP** Groundwater Management Plan
- GSA** Groundwater Sustainability Agency
- GSP** Groundwater Sustainability Plan
- BMPs** Best Management Practices
- \* Elements to be documented in Bulletin 118 Updates
- \*\* Basin prioritization will be updated prior to each Bulletin 118 Update (estimated to be every 5 years)

# **Background - SGMA Requirements for Boundary Revisions**

# SGMA Requirements

- **Emergency regulations for process to request and potentially approve revisions to existing Bulletin 118 basin boundaries**
  - **DWR Shall Adopt by January 1, 2016**
  - **Instructions to Local Agencies on Submittal of:**
    1. **Information demonstrating proposed basin can be sustainably managed**
    2. **Technical information on boundaries and conditions in proposed basin**
    3. **Consultation with interested parties in affected basins**
    4. **Other information DWR deems necessary to justify revision**

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    1. Information demonstrating proposed basin can be sustainably managed
    2. Technical information on boundaries and conditions in proposed basin
    3. Consultation with interested parties in affected basins
    4. Other information DWR deems necessary to justify revision
  - **Methodology and Criteria on how to assess:**
    1. Likelihood proposed basin can be sustainably managed
    2. Whether proposed basin would limit the SGM of adjacent basin
    3. Whether there is a history of SGM of groundwater levels in the proposed basin

# Basin Boundary Regulations Process

- Phases of Implementation

## Scoping

- Notify OAL
- Collect Issues from Stakeholders
- Coordinate with SWRCB & CWC

## Draft Framework

- Public Listening Sessions
- Present and Receive Input from Advisory Groups and Public

## Draft Emergency Regulations

- Required Public Meetings
- Present and Receive Input from Advisory Groups and Public

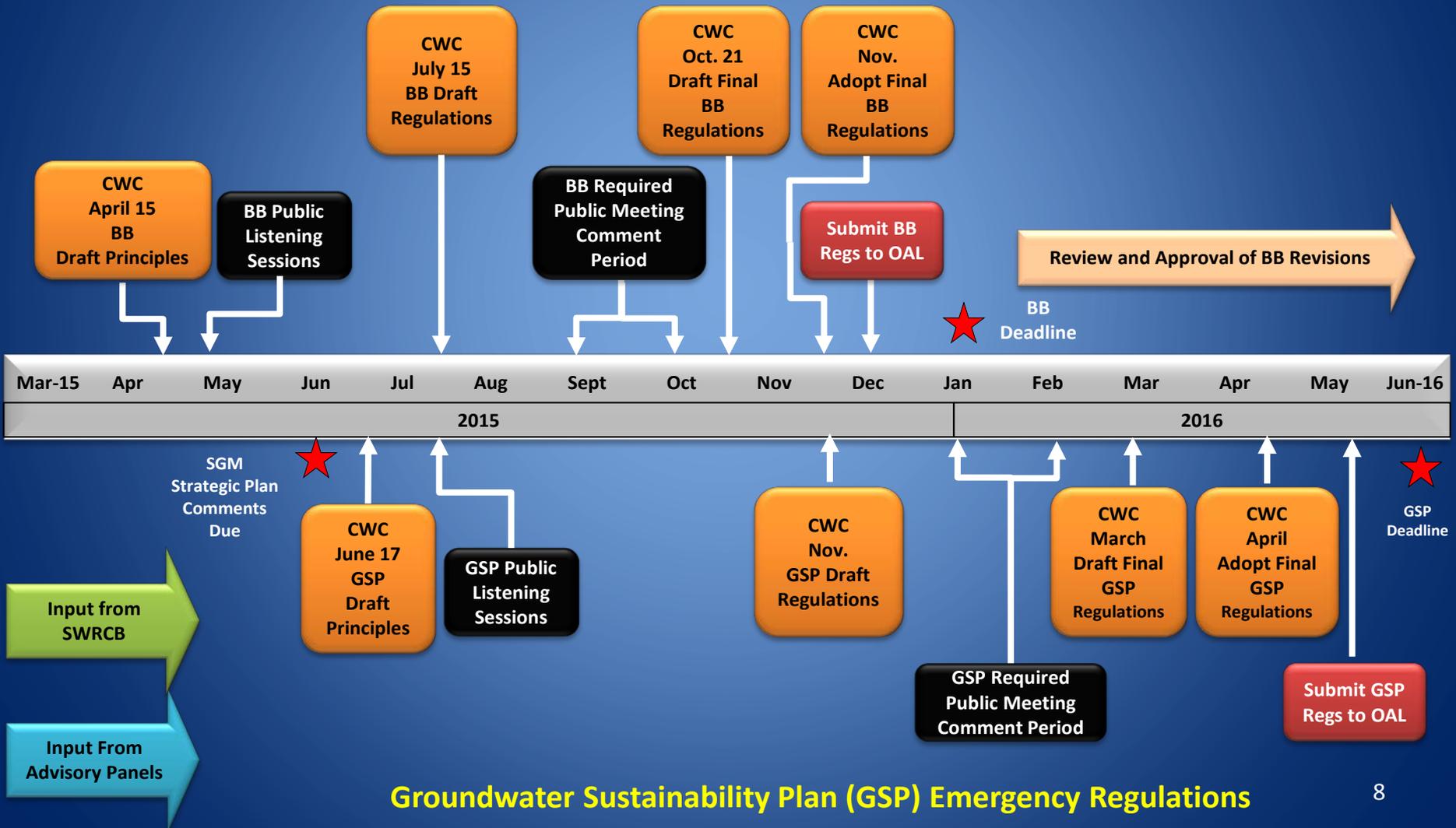
## Adopt Emergency Regulations

- CWC Approval
- Noticing and Submittal to OAL

Input and Feedback from the CWC and SWRCB

# Basin Boundary and GSP/ALT Regulations Estimated Project Timeline

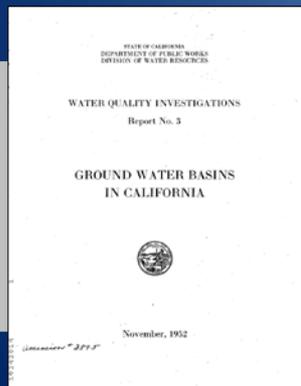
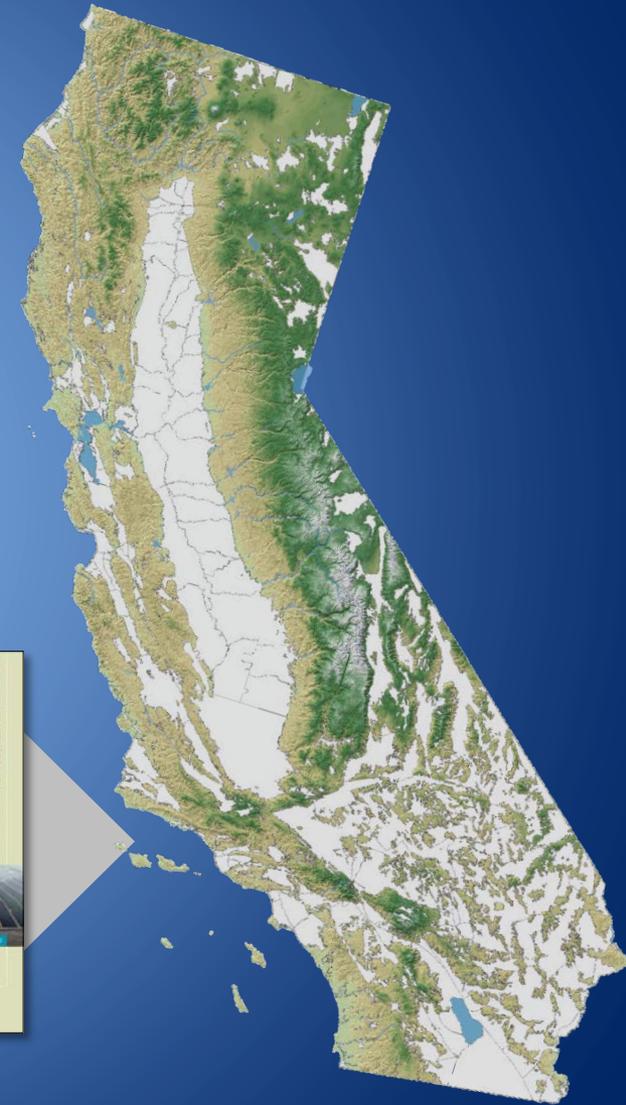
## Basin Boundary (BB) Emergency Regulations



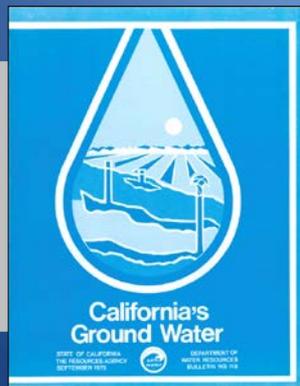
# Groundwater Basin Overview

# CA Groundwater Basins

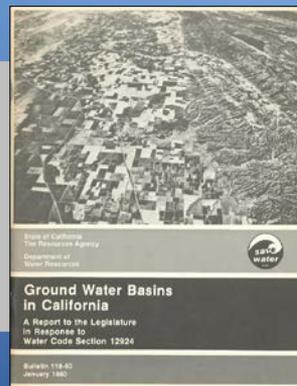
- Groundwater Basins Are Defined in Bulletin 118 Using the Best Available Data
- Revisions to Basin Boundaries Have Occurred During B-118 Updates. (Water Code § 12924)



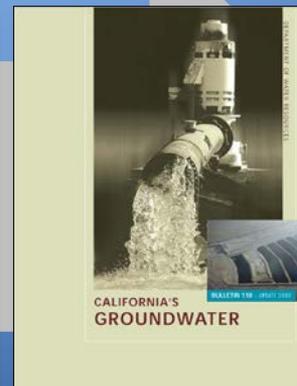
1952



Bulletin 118  
1975



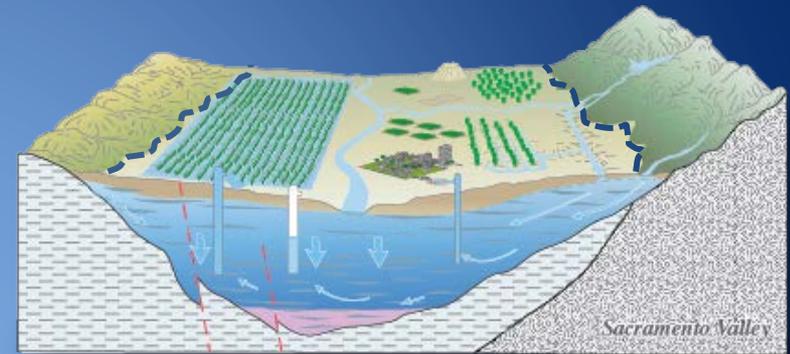
Bulletin 118  
1980



Bulletin 118  
2003

# Bulletin 118 Groundwater Basins

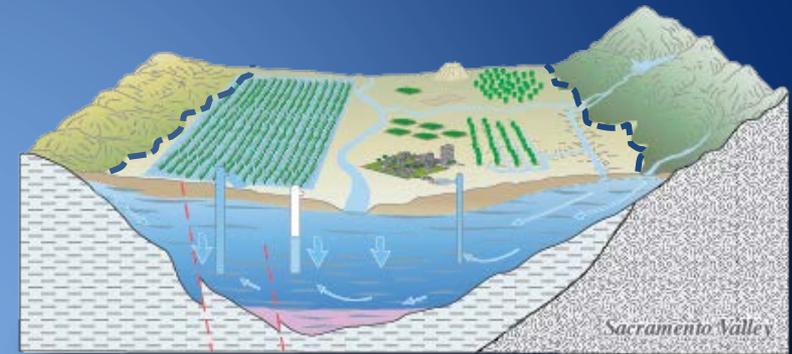
- **SGMA Definition (B-118-2003)**
- **Groundwater Basin** – An alluvial aquifer or a stacked series of alluvial aquifers with reasonably well-defined boundaries in a lateral direction and having a definable bottom.



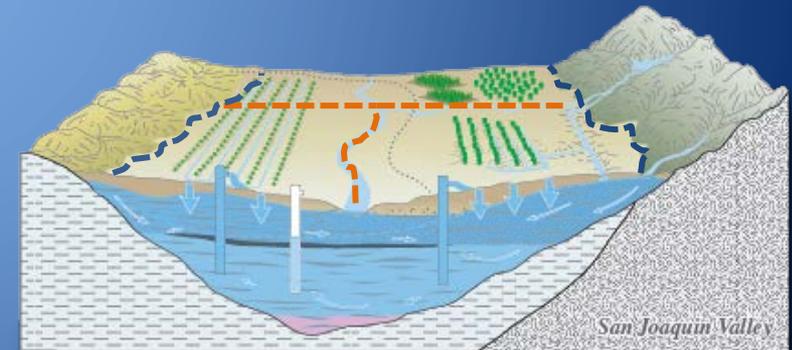
Modified from Faunt, 2009

# Bulletin 118 Groundwater Basins

- **SGMA Definition (B-118-2003)**
- **Groundwater Basin** – An alluvial aquifer or a stacked series of alluvial aquifers with reasonably well-defined boundaries in a lateral direction and having a definable bottom.
- **Groundwater Subbasin** – A subbasin is created by dividing a groundwater basin into smaller units using geologic and hydrologic barriers or institutional boundaries.



Modified from Faunt, 2009



Modified from Faunt, 2009

# Communication and Engagement

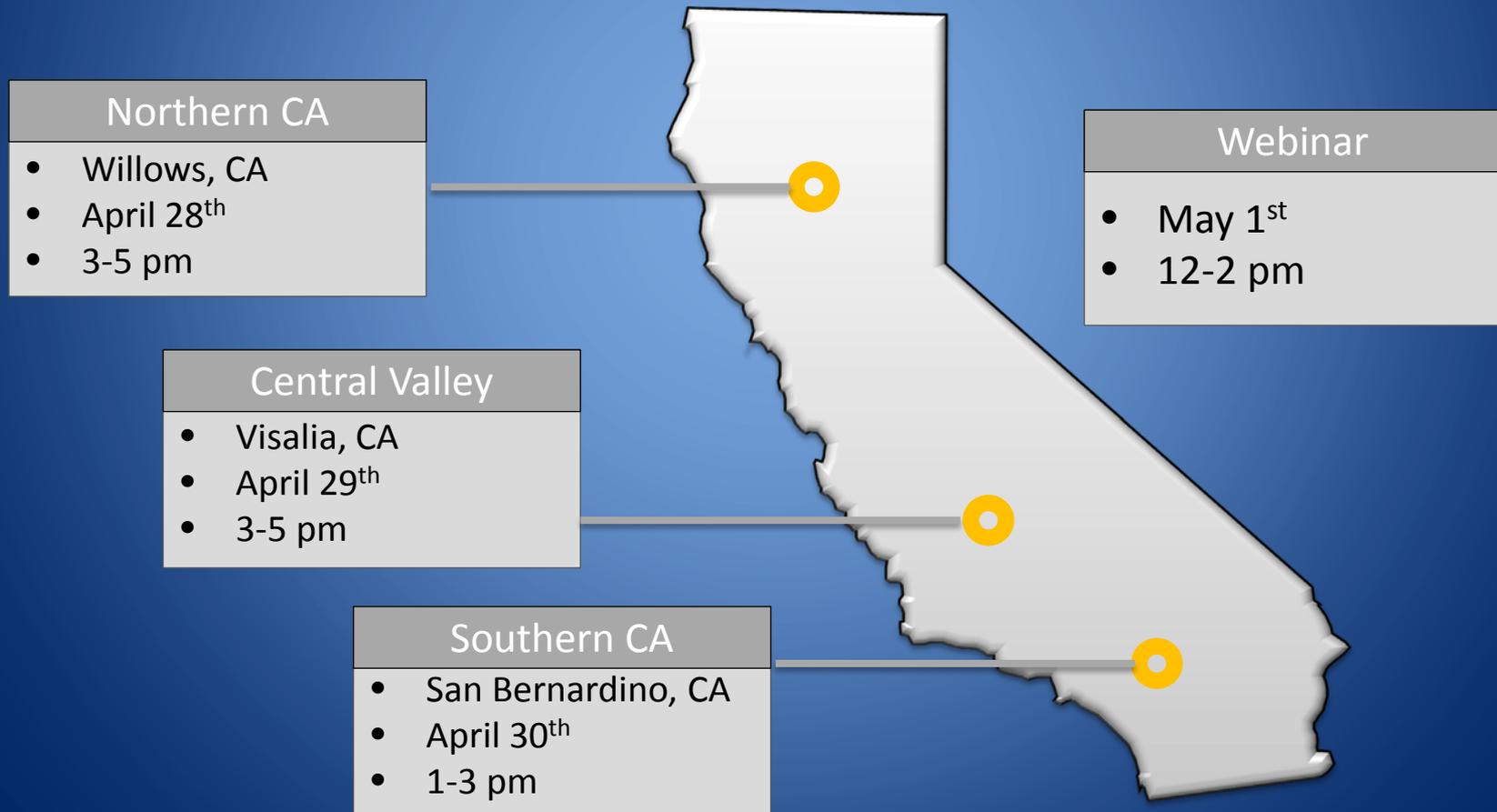
# Communication and Engagement

- Provide information to advance discussion with stakeholders as DWR develops basin boundary regulations
  - **Basin Boundary Regulation Discussion Paper**
    - [http://water.ca.gov/groundwater/sgm/basin\\_boundaries.cfm](http://water.ca.gov/groundwater/sgm/basin_boundaries.cfm)
- DWR invites comment and input on the preliminary draft information and identified questions
  - **Advisory Groups**
  - **Public Listening Sessions**

# Public Listening Sessions

- Present Draft Framework for Boundary Revision Regulations
- Enhance DWR's Understanding of Specific Stakeholder Issues

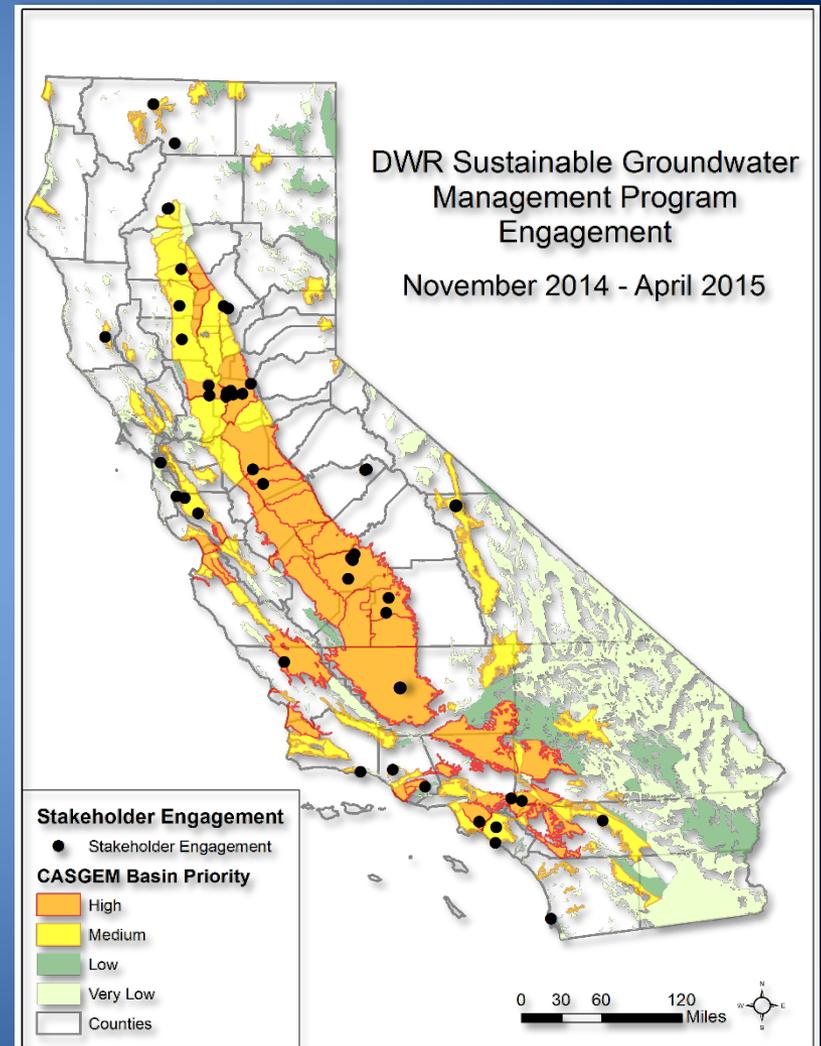
➤ <http://water.ca.gov/groundwater/sgm/listening.cfm>



# Summary of Basin Boundary Issues

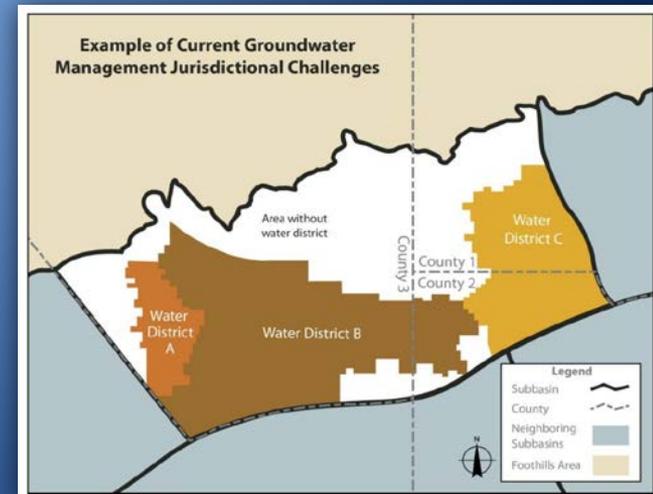
# Summary of Boundary Issues

- DWR has Received Input on Potential Statewide Basin Boundary Issues
- Organized by Issue Types
  - Governance
  - Hydrogeologic
  - SGMA Compliance
  - Existing State Programs



# Summary of Boundary Issues

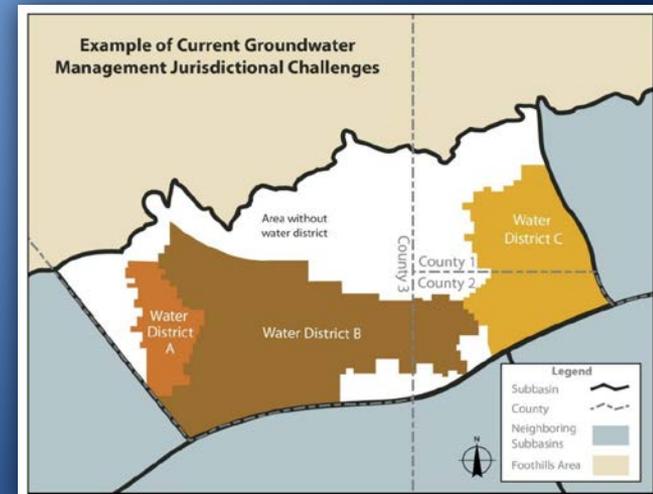
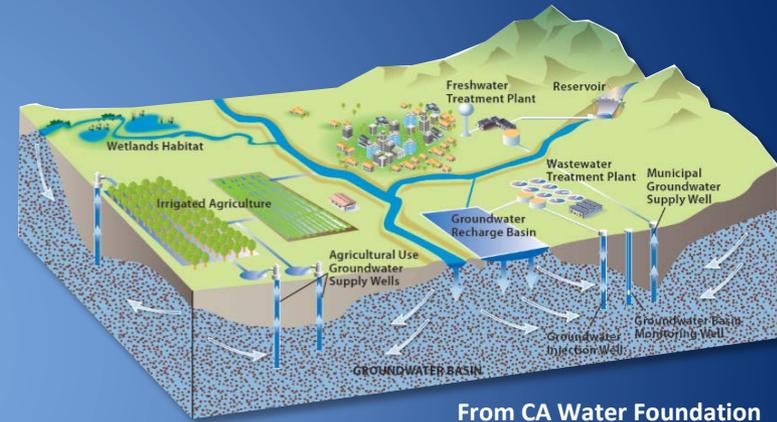
- Summary of Boundary Issues – **Governance**
  - Boundaries Not Consistent with Political Jurisdictions
  - Multiple Political Jurisdictions (Counties)
  - Existing Tribal, Federal, and Adjudicated Area Planning Boundaries
  - Coordination



# Summary of Boundary Issues

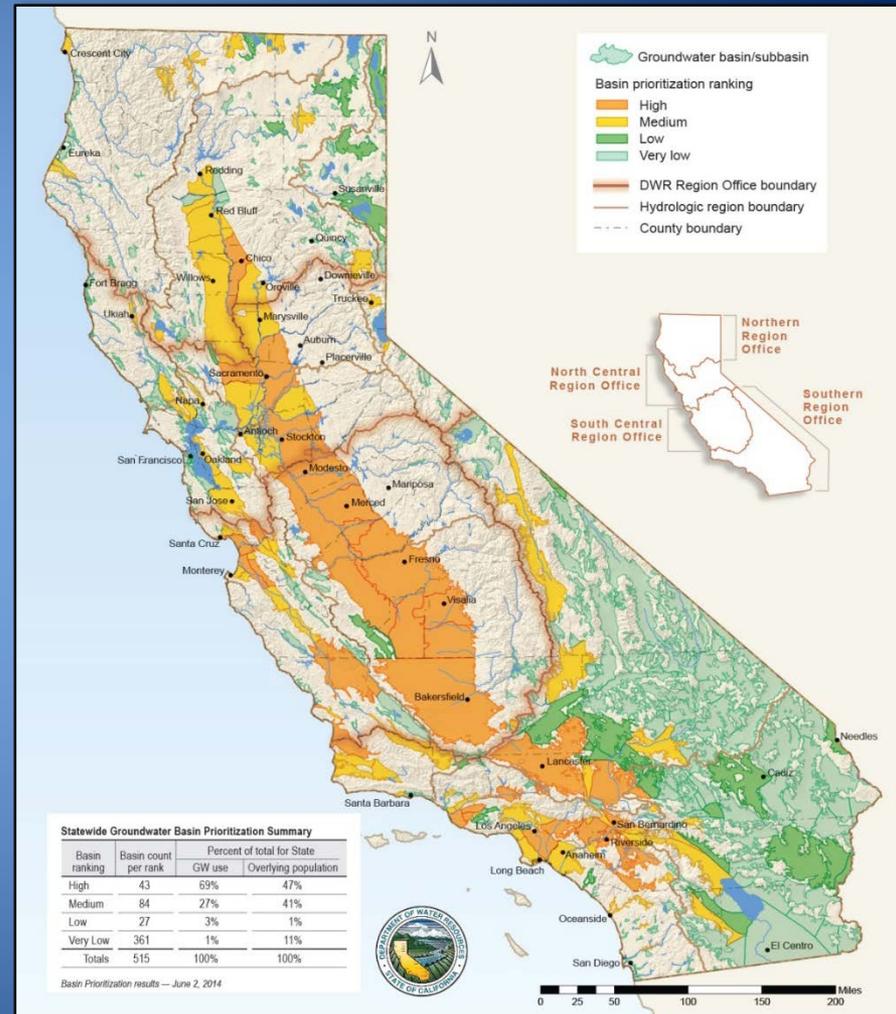
- Summary of Boundary Issues – **Hydrogeologic**

- Updated Information
- Existing Management
- Pumping Adjacent to Basin
- Watersheds
- Stream-Aquifer Interaction
- Future Boundary Adjustments



# Summary of Boundary Issues

- Summary of Boundary Issues – **SGMA Compliance**
- Changes to Basin Priority
  - Decrease Priority
  - Increase Priority



# Summary of Boundary Issues

- Summary of Boundary Issues - **Existing State Programs**



## DWR

- CASGEM
- Basin Prioritization
- Integrated Regional Water Management
- Reporting

## State and Regional Water Boards

- Basin Plans
- Permits and Water Quality Objectives



# **Proposed Basin Boundary Goal And Potential Characteristics**

# DWR's Proposed Goal

## State Policy (Water Code § 113, § 10721)

- Sustainable management of groundwater without causing undesirable results.

## DWR's Proposed Goal –

- Groundwater resources are sustainably managed within existing groundwater basin boundaries defined by Bulletin 118-2003 unless compelling reasons, which are supported by adequate technical information and broad agreement, are provided for alternative boundaries that increase the likelihood of sustainable management of the proposed and adjacent basins.

# Potential Basin Boundary Regulation Characteristics

- Intended to promote discussion on the potential advantages and disadvantages of basin boundary revisions.
- Assist with the development of draft regulations that align with the requirements of the SGMA and the overall goal to achieve groundwater sustainability statewide.
  - **Size and Scientific Characteristics**
  - **Governance and Jurisdictional Characteristics**
  - **Coordination Characteristics**

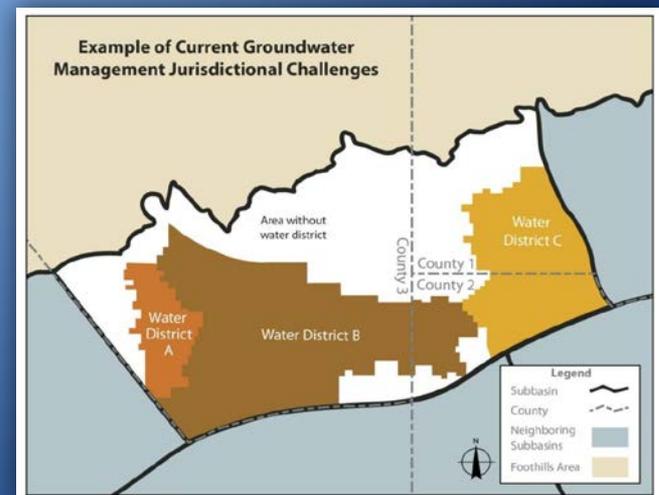
# Basin Boundary Characteristics

## Size and Scientific

- Basin Adequately Sized to Maximize Water Management Opportunities
- Basin Properly Sized for Development and Management of Basin Budgets
- Fragmentation of a Contiguous Groundwater Aquifer System



From CA Water Foundation

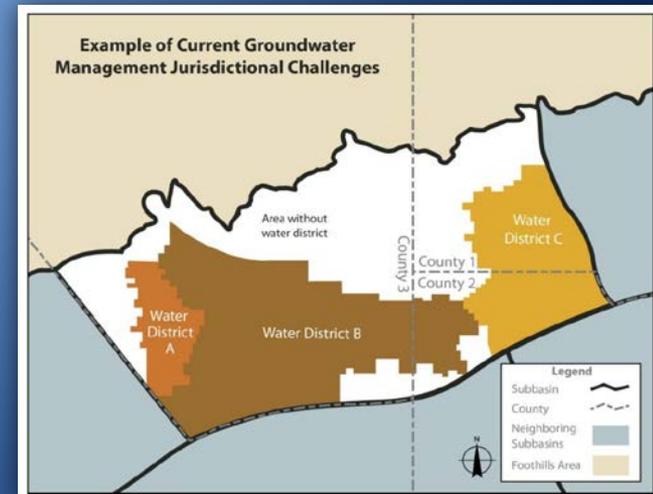


From CA Water Foundation

# Basin Boundary Characteristics

## Governance and Jurisdictional

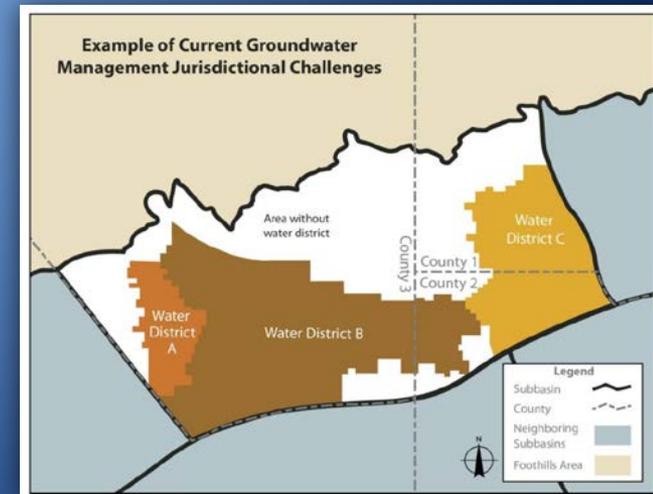
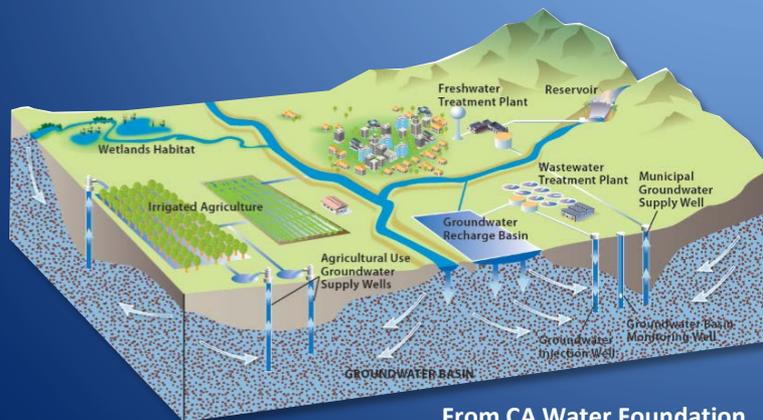
- Solely Jurisdictional Revisions
- Basin Properly Sized for GSP Governance
- Scientific Evidence vs. Jurisdictional Convenience
- Fragmentation to Exclude Areas Experiencing Undesirable Results
- Basin Boundary Revision That Does not Create Unmanaged Area(s)



# Basin Boundary Characteristics

## Coordination

- Boundary Revisions Developed Through Stakeholder Process
- Coordination Agreements
  - Inter-Basin - Between Two or More Basins
  - Intra-basin - Within a Basin



# Future Steps

# Future Steps

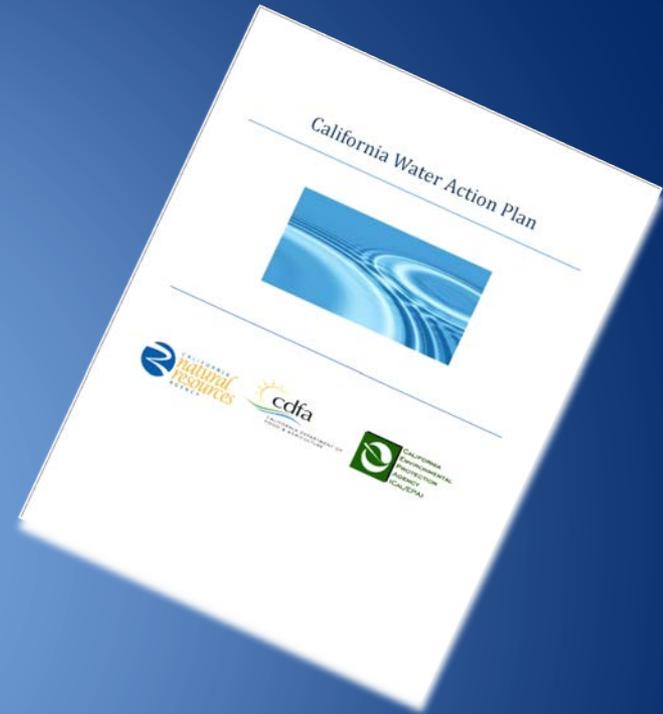
- **Public Listening Sessions**
  - April 28- Willows
  - April 29- Visalia
  - April 30- San Bernardino
  - May 1 – Webinar
- <http://www.water.ca.gov/groundwater/sgm/listening.cfm>
- **Develop Draft Regulation Content**
  - April - July



# Questions

*When properly managed, groundwater resources will help protect communities, farms, and the environment against the impacts of prolonged dry periods and climate change.*

California Water Action Plan 2014



State: [www.groundwater.ca.gov](http://www.groundwater.ca.gov)

DWR: [www.water.ca.gov/groundwater](http://www.water.ca.gov/groundwater)

SWRCB: [www.waterboards.ca.gov/water\\_issues/programs/gmp](http://www.waterboards.ca.gov/water_issues/programs/gmp)

