

Sustainable Groundwater Management Act

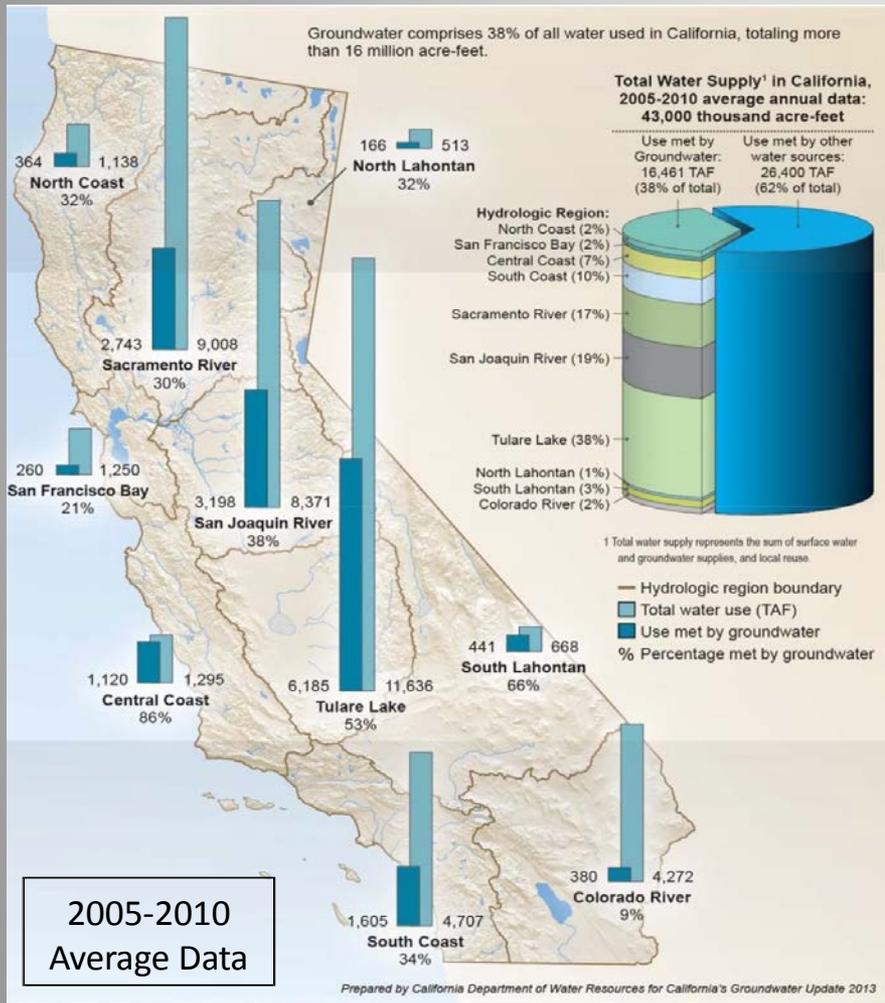
April 27, 2016 – Atwater, CA

Christopher Olvera, Engineering Geologist
California Department of Water Resources
Sustainable Groundwater Management
Program

Presentation Overview

- Why is Groundwater Important?
- Groundwater Management Legislation
- SGMA Overview
 - Groundwater Sustainability Agencies (GSAs)
 - Groundwater Sustainability Plan (GSPs)
 - Basin Boundary Modifications

Why is Groundwater Important?



- 38% of total water supply comes from GW (statewide average)
- Estimated 60% of total supply comes from GW during drought years
- Central Coast is most GW dependent
- Tulare Lake uses the most GW
- Many communities are 100% reliant upon GW

Groundwater Management Legislation

- **1992:** AB 3030 – Groundwater Management Act
 - Groundwater Management Plans (GWMP)
 - Water Code, Division 6, Part 2.75, Section 10750 et seq.
- **2000:** AB 303 – Local Groundwater Assistance grants
- **2002:** SB 1938 – Required specific elements in GWMPs to be eligible for grant funds
- **2009:** SBx7-6 (CASGEM) – Statewide seasonal and long-term groundwater elevation monitoring
 - Water Code, Division 6, Part 2.11, Section 10920 et seq.
- **2011:** AB 359 – Required groundwater recharge mapping
- **2014:** Sustainable Groundwater Management Act (SGMA)
 - Water Code, Division 6, Part 2.74, Section 10720 et seq.

California's Sustainable Groundwater Management Act (SGMA)

“A central feature of these bills is the recognition that groundwater management in California is best accomplished locally.”

Governor Jerry Brown, September 2014

SGMA is a three bill legislative package:

- SB 1168 (Pavley)
- AB 1739 (Dickinson)
- SB 1319 (Pavley)



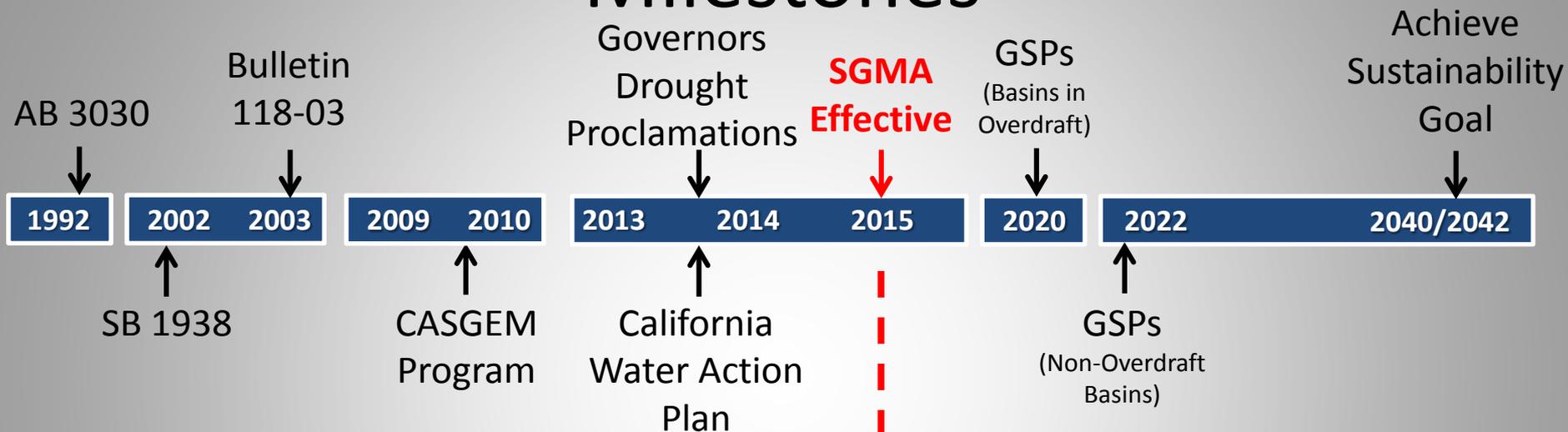
Legislative Intent of SGMA

Water Code Section 10720.1

- To provide for the **sustainable management** of groundwater basins
- To enhance **local management**
- To **establish minimum management standards**
- To provide local groundwater agencies with **authority** and the necessary **technical and financial assistance**
- To avoid or **minimize subsidence**
- To **improve data collection**
- To **increase groundwater storage**
- To manage groundwater basins through the actions of local governmental agencies while **minimizing state intervention**

California's Major Groundwater

Milestones



Voluntary Groundwater Management

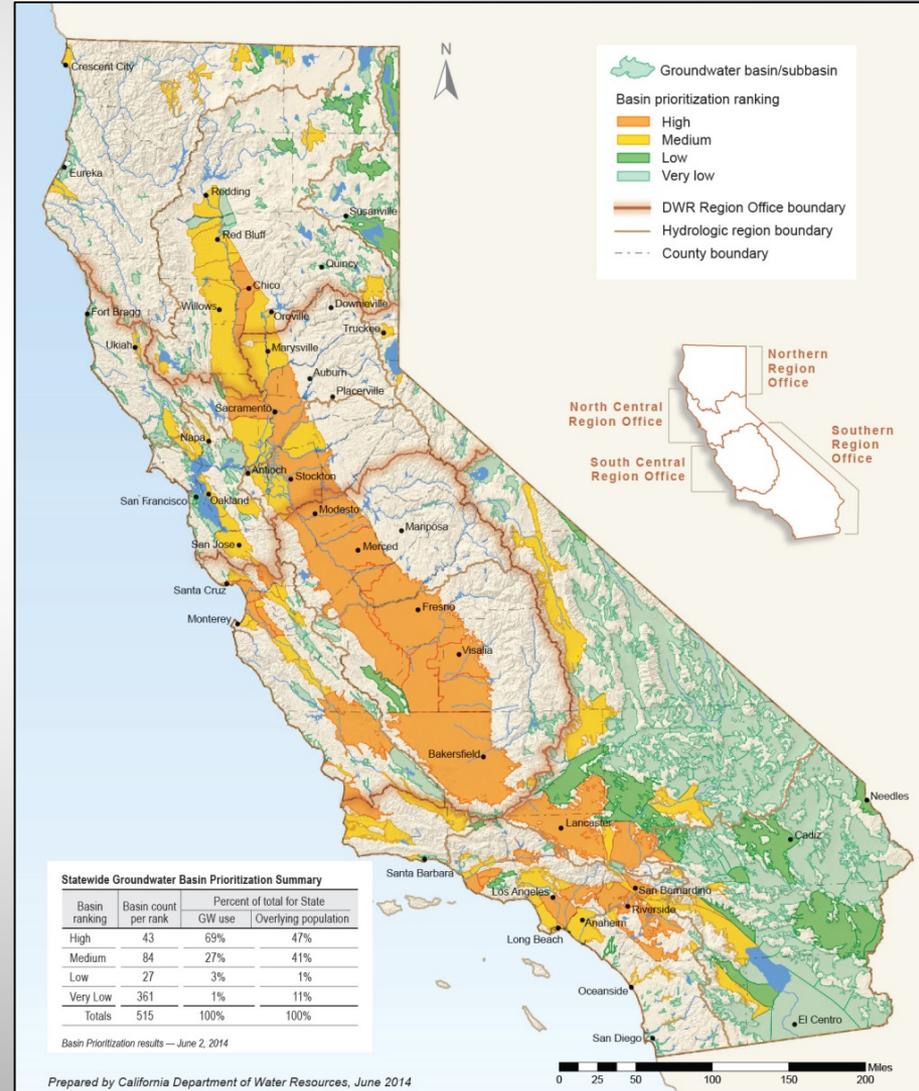
- Service area planning
- Minimal implementation
- Variable authority
- Grant incentives

Required Groundwater Management

- Entire basin planning
- Required implementation
- GSAs have new:
 - Authorities
 - Responsibilities
- State backstop

Where Does SGMA Apply?

- All 127 high- and medium-priority basins are subject to SGMA.
- A “basin” is an alluvial aquifer, not a fractured bedrock aquifer.
- 127 priority basins account for:
 - 96% of average annual GW supply
 - 88% of 2010 population overlying GW basin area



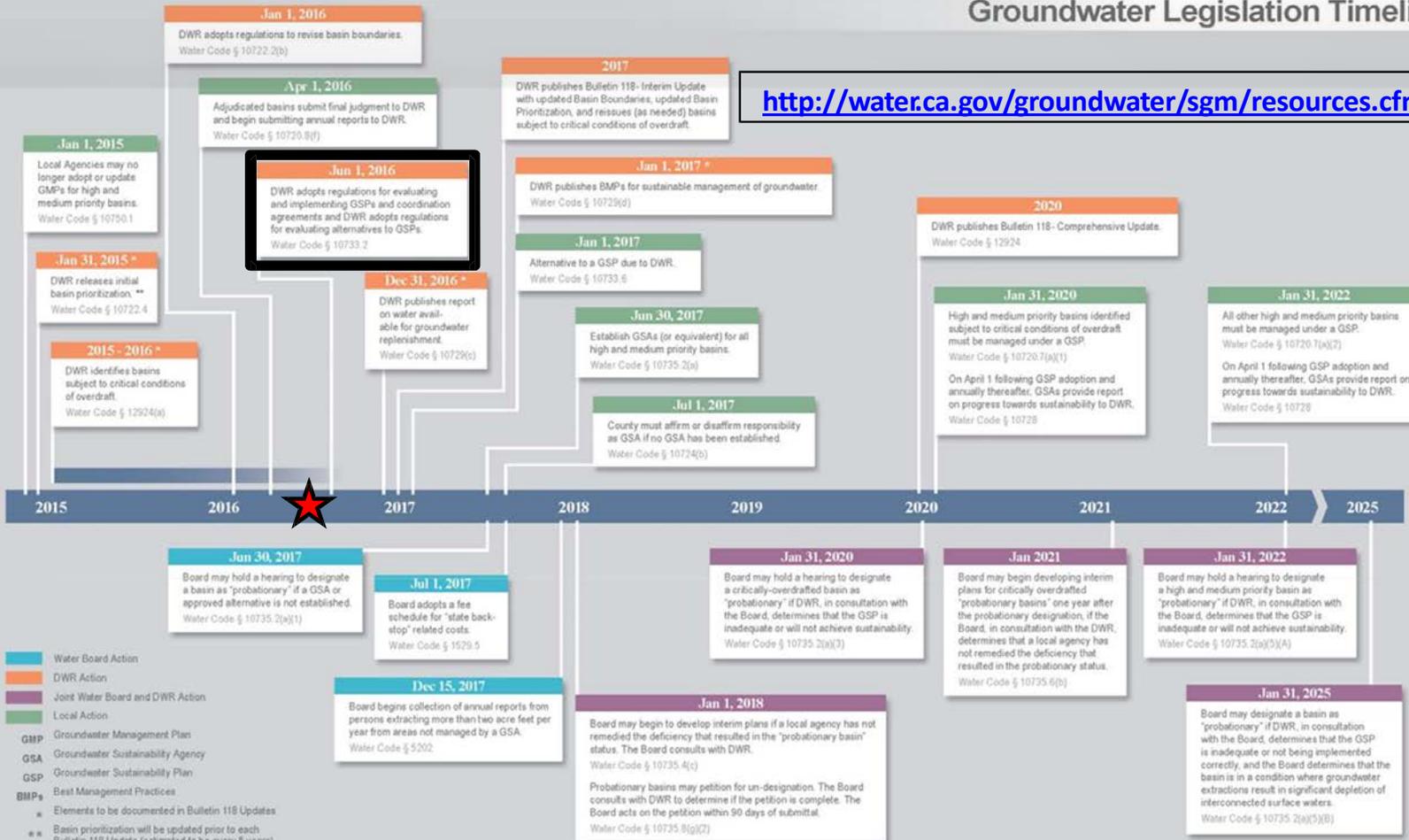
BASIN RANKING	BASIN COUNT	PERCENT OF TOTAL	
		GW USE	POPULATION
High	43	69%	47%
Medium	84	27%	41%
Low	27	3%	1%
Very Low	361	1%	11%
Totals	515	100%	100%

Basin Prioritization Results – June 2, 2014

SGMA Timeline (2015-2025)

Groundwater Legislation Timeline

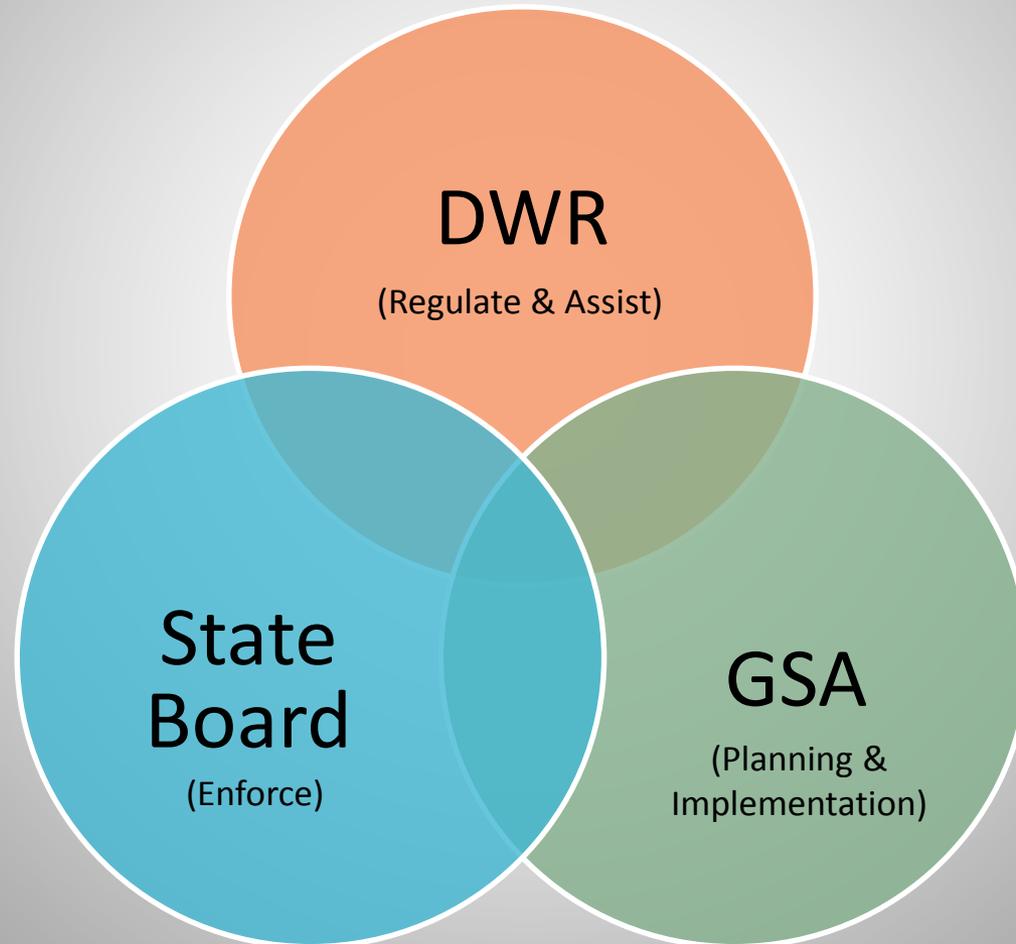
<http://water.ca.gov/groundwater/sgm/resources.cfm>



Key Milestones of SGMA

- **January 1, 2015:** Local agencies may no longer adopt or update existing groundwater management plans in medium- or high-priority groundwater basins.
- **January 1, 2016:** DWR adopts regulations to revise Bulletin 118 groundwater basin boundaries.
-  **June 1, 2016:** DWR adopts regulations for evaluating and implementing GSPs/Alternatives to GSPs and coordination agreements.
- **January 1, 2017:** Alternatives to GSPs must be submitted to DWR.
- **June 30, 2017:** GSAs must be formed in all medium- and high-priority basins.
- **January 31, 2020:** Medium- and high-priority basins that are critically overdrafted must be managed under a GSP.
- **January 31, 2022:** All other medium- and high-priority basins must be managed under a GSP.
- **State Intervention:** If GSAs are not established by June 30, 2017, or if GSPs are not adopted by their required dates in 2020 or 2022 (or if an Alternate Plan has not been submitted by January 1, 2017), the State Water Resources Control Board may intervene and could designate a basin as a probationary basin.

Groundwater Sustainability



Groundwater Sustainability Agencies (GSAAs)

WHAT IS A GSA?

Water Code Section 10721

- “*Groundwater sustainability agency*” means one or more local agencies that implement the provisions of this part [Part 2.74].
- For purposes of imposing fees pursuant to Chapter 8 (commencing with Section 10730) or taking action to enforce a groundwater sustainability plan, “*groundwater sustainability agency*” also means each local agency comprising the groundwater sustainability agency if the plan authorizes separate agency action.
- “*Local agency*” means a local public agency that has water supply, water management, or land use responsibilities within a groundwater basin.

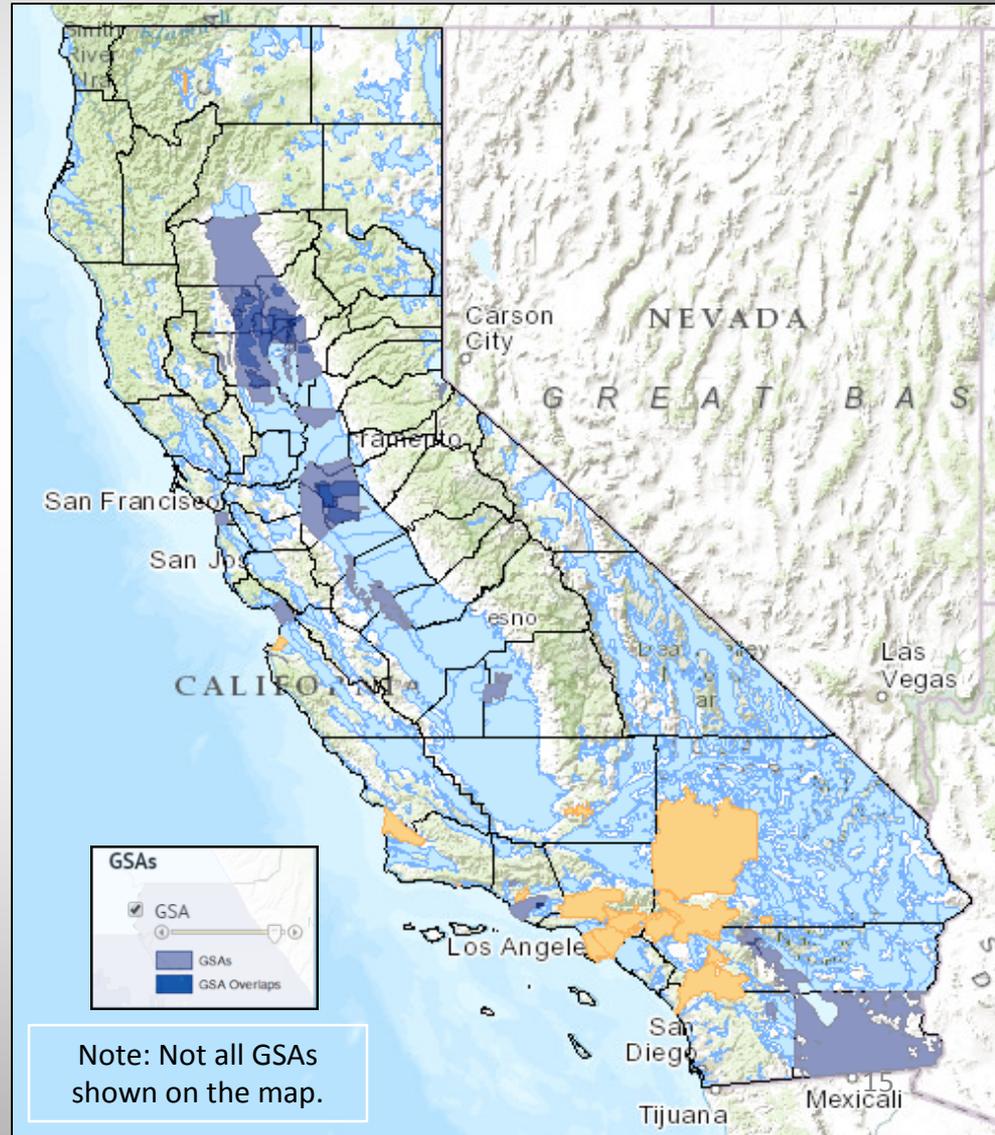
FORMATION OF A GSA

Chapter 4 of SGMA, Section 10723 et seq.

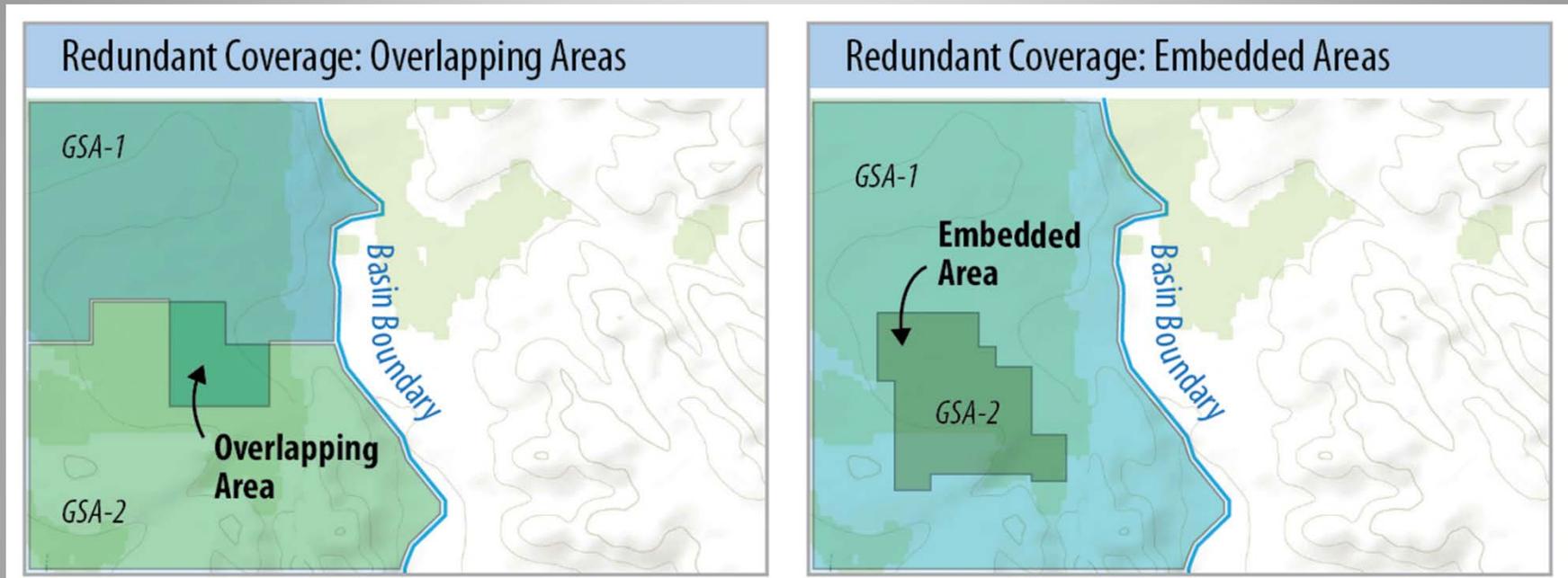
- All portions of a basin must be covered by a GSA(s) by June 30, 2017.
- Conduct a public hearing in county or counties overlying the basin.
- One local agency may decide to become a GSA, must consider:
 - Section 10723.8(c): No overlapping service area boundaries.
 - Section 10723.8(d): Exceeding service area boundaries.
- Multiple local agencies may decide to form a GSA.
 - Through a JPA, MOA, or other legal agreement.
 - This approach could address overlapping service area jurisdictions.
- 10723.8(a): Inform DWR within 30 days of deciding to become or form a GSA.
- Submit a complete GSA formation notification to DWR.

Status of GSA Formation

- By June 30, 2017, all high- and medium-priority basins must be covered by GSAs, Alternative Plans, or Adjudications to avoid potential State Board intervention
- **>70 GSAs have been formed as of April 25, 2016**
- Many need to resolve overlap
- Local agency service areas must be considered as a GSA
- DWR is identifying exclusive GSAs on the GSA Formation Table
- GSAs have a requirement to address stakeholder interests



Examples of Overlapping Service Areas

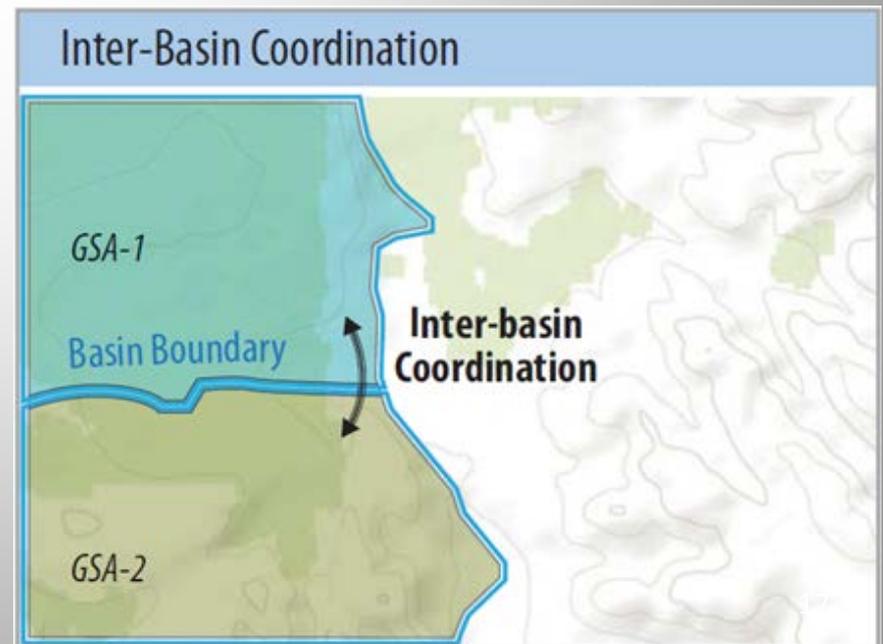
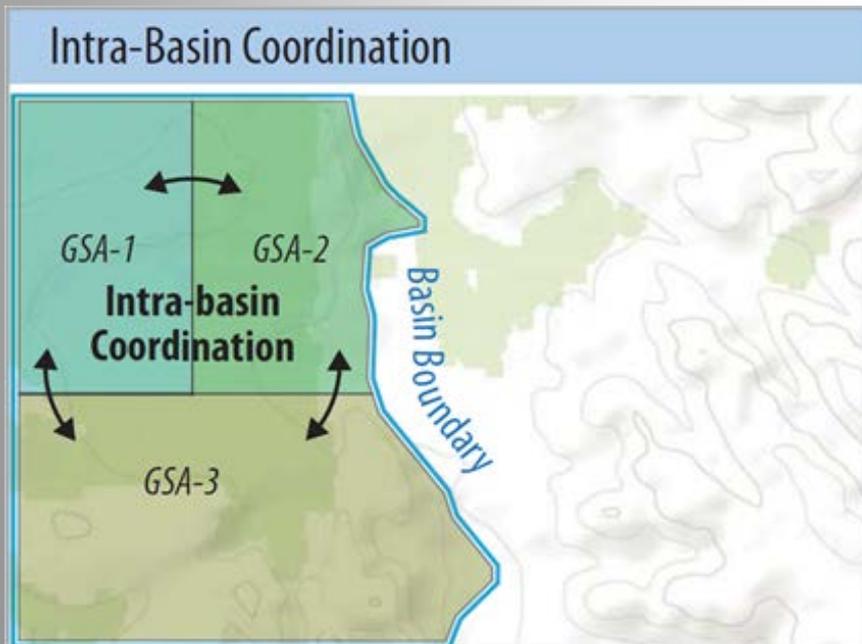


- GSA-1 is formed – DWR posts GSA notification on 1/15/2016 and the 90-day period ends 4/14/2016.
- GSA-2 is formed – DWR posts notification on 2/1/2016:
 - If no overlap exists [in the basin], the 90-day period ends 5/1/2016
 - If overlap occurs [in the basin], then both GSA-1 and GSA-2 must comply with §10723.8(c)
- “Material changes” could be required to eliminate overlap [in the basin]

COORDINATION REQUIREMENTS OF A GSA

Intra- and Inter-Basin Coordination

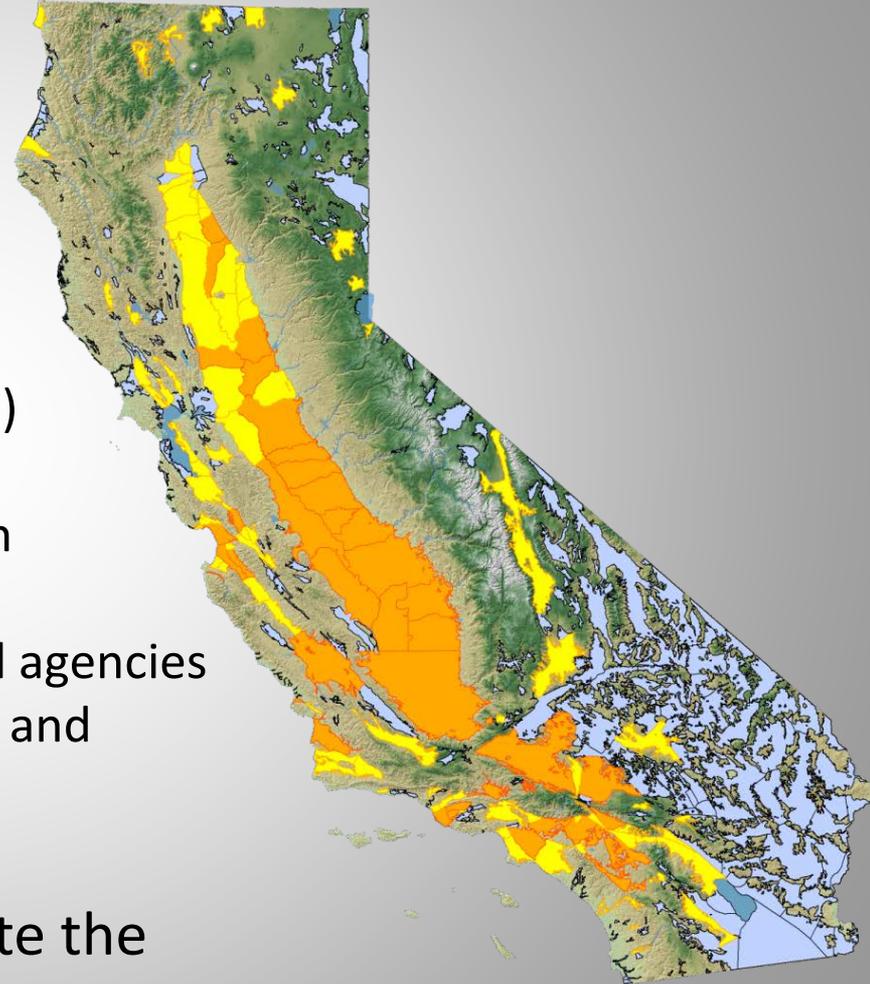
- Water Code §10727.6
- Intra-basin coordination is required when multiple GSAs develop multiple GSPs.
- Requires GSPs use “same data and methodologies”
- Water Code §10733(c)
- DWR shall evaluate whether a GSP adversely affects the ability of an adjacent basin to implement its GSP.
- GW can flow across subbasin lines



Groundwater Sustainability Plans (GSPs) and Alternative Plans

SGMA Requirements

- **By June 1, 2016, DWR shall adopt regulations for:**
 - Evaluating GSPs
 - Implementation of GSPs
 - Coordination agreements
- **The regulations shall identify:**
 - Required Plan Components (§10727.2)
 - Additional Plan Elements (§10727.4)
 - Coordination of Multiple GSPs in Basin (§10727.6)
 - Other information that will assist local agencies in developing and implementing GSPs and coordination agreements.
- **The department may update the regulations, including to incorporate the best management practices (§10729 & 10733.2 (b)(1))**



GSP and Alternate Plan Regulations

Sustainable Groundwater Management

Required for All High- and Medium-Priority Basins (127)

GSP

- Covers Entire Basin
- Multiple GSPs Require Coordination Agreement
- Submitted by GSA(s)
- Annual Reporting
- 5 Year Evaluation
- Submitted to DWR by
 - 1/31/2020 (Critical Overdrafted)
 - 1/31/2022 (all other High/Medium Priority)

Alternative Plan

- Covers Entire Basin
- Submitted by Local Agency or GSA
- Eligibility:
 1. Existing GMP
 2. Adjudication
 3. Basin Operated within Sustainable Yield for 10 years
- CASGEM Compliant
- Annual & 5 Year Reporting
- Submitted to DWR by 1/1/2017

Sustainability Goal

Groundwater Sustainability



*Undesirable Results:
Significant and Unreasonable...*



Surface Water
Depletion



Reduction
of Storage



Degraded
Quality



Seawater
Intrusion



Land
Subsidence



Lowering
GW Levels

Governance

Coordination

Land Use

State of the Basin

**Sustainability
Goal**

Measurable
Objectives &
Undesirable
Results

Monitoring Plan

Implementation
& Reporting

Alternative
Plans & Frings
Areas

Measurable Objectives

Measurable Objectives & Interim Milestones (§10727.2(b))

- GSPs shall include Measurable Objectives, as well as Interim Milestones in increments of five years, to achieve the sustainability goal in the basin within 20 years of the implementation of the plan.



Surface Water
Depletion



Reduction
of Storage



Degraded
Quality



Seawater
Intrusion



Land
Subsidence



Lowering
GW Levels

Considerations

- **Measurable Objective (MO)** – 1) Management statement and 2) Measurable metric (at Interim Milestones) for each Undesirable Results to achieve the basin-wide Sustainability Goal
- **Minimum Threshold (MT)** – The point below which Undesirable Results (significant and unreasonable) are occurring in basin

Governance

Coordination

Land Use

State of the Basin

Sustainability
Goal

**Measurable
Objectives &
Undesirable
Results**

Monitoring Plan

Implementation
& Reporting

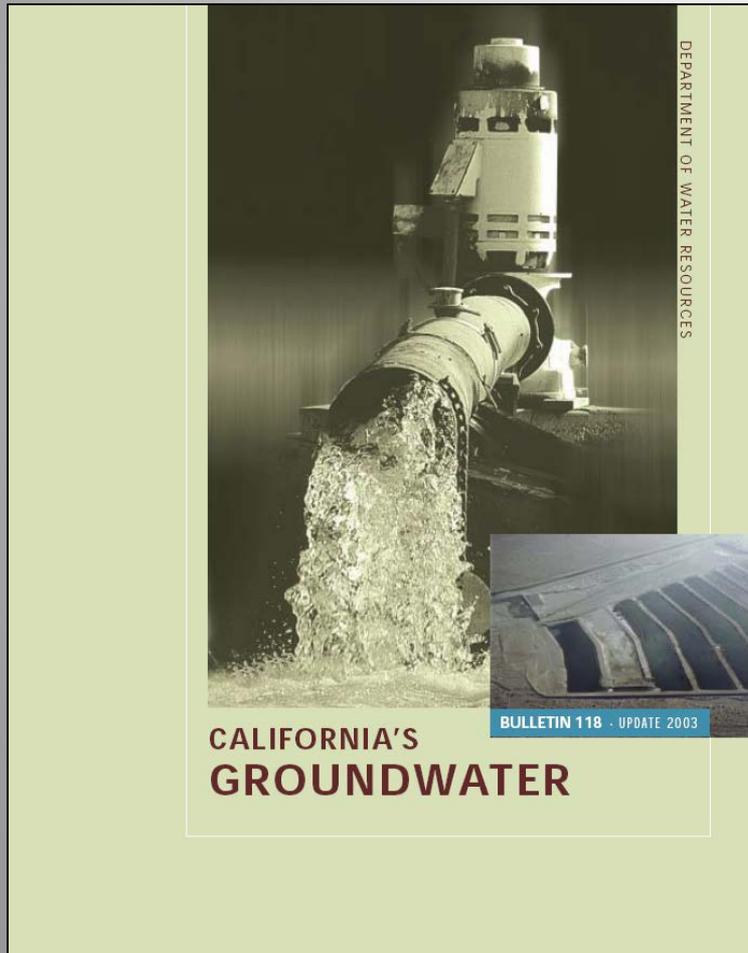
Alternative
Plans & Frings
Areas

Draft – For Discussion
Purposes Only
(Subject to Change)

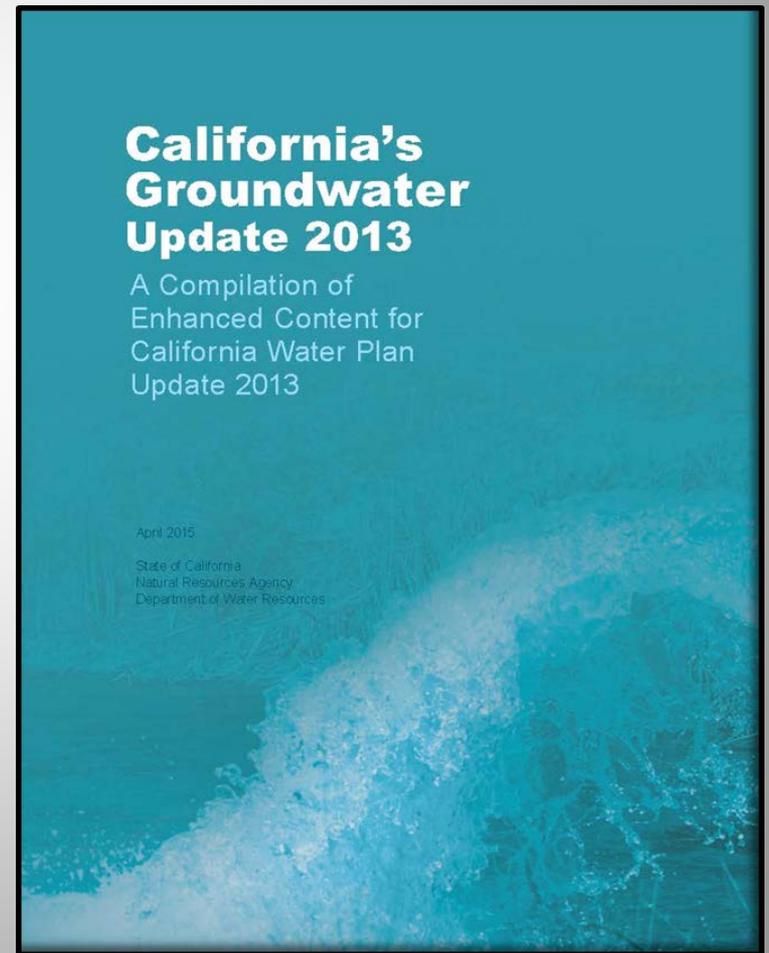
Basin Boundary Modifications

DWR's Groundwater Information

www.water.ca.gov/groundwater
Bulletin 118 (2003)

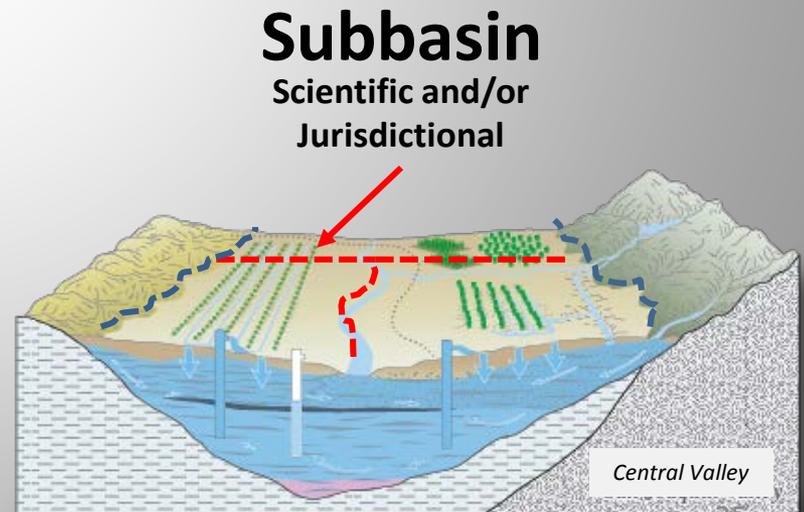
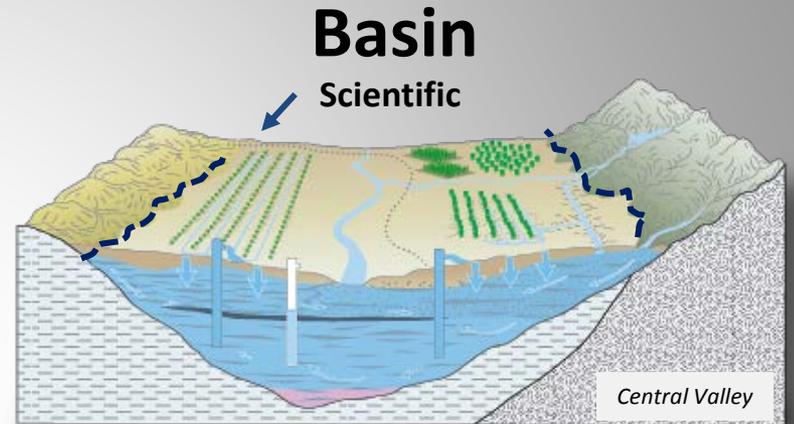
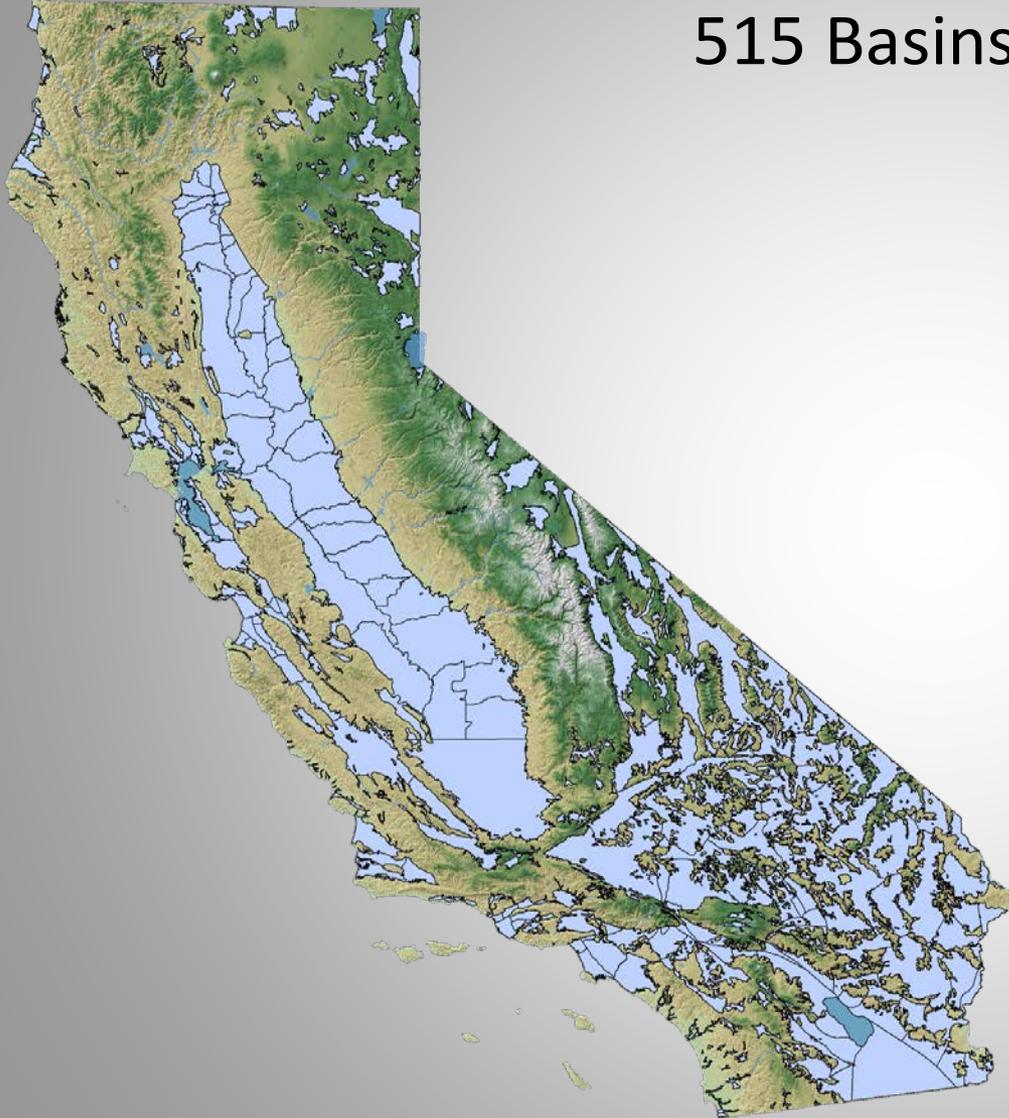


www.waterplan.water.ca.gov
Bulletin 160 (2015)



Applicability

515 Basins and Subbasins



Basin Boundary Emergency Regulations

- **Finalized November 16, 2015**
 - **CCR, Title 23. Waters, Division 2, Chapter 1.5, Subchapter 1**
- Only local agencies can make boundary modification requests.
 - **Requests due March 31, 2016**
- Define the basin based upon the best available science.
- Internal boundaries can be created for jurisdictional and management purposes.
- Regulations based upon these governing requirements, Water Code §10722.2(c)
 - How to assess the likelihood that the proposed basin can be sustainably managed.
 - How to assess whether the proposed basin would limit the sustainable management of adjacent basins.
 - How to assess whether there is a history of sustainable management of groundwater levels in the proposed basin.

Bulletin 118 – Interim Update 2017

<http://water.ca.gov/groundwater/bulletin118/index.cfm>

- Bulletin 118 published in 1975, 1980 and 2003
- DWR plans to update Bulletin 118 in years ending in 0 and 5
- 2017 Interim Update will contain details for:
 - Critically overdrafted basins
 - Revised groundwater basin boundaries
 - Updated basin priorities
 - Regional information
 - SGMA information
- 2020 will be a comprehensive update

