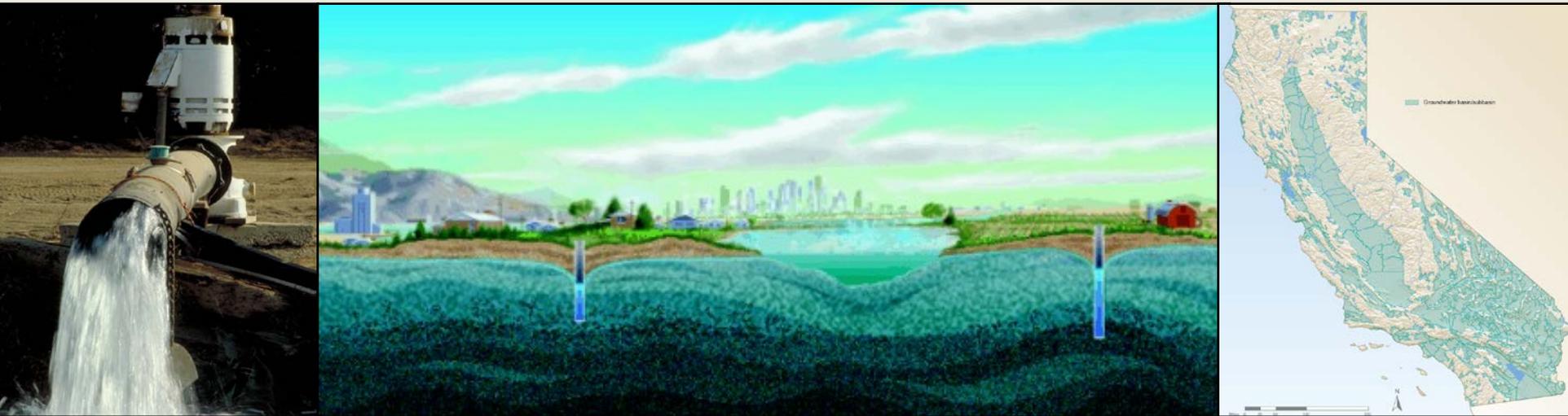




# DWR's Sustainable Groundwater Management Implementation

## Groundwater Sustainability Plan (GSP) & Alternative Emergency Regulations



California Water Commission  
March 16, 2016  
Sacramento, CA



# Presentation Overview

- **Groundwater Sustainability Agency (GSA) Update**
- **Summary of Public Comments & Stakeholder Input to Date**
- **Next Steps**

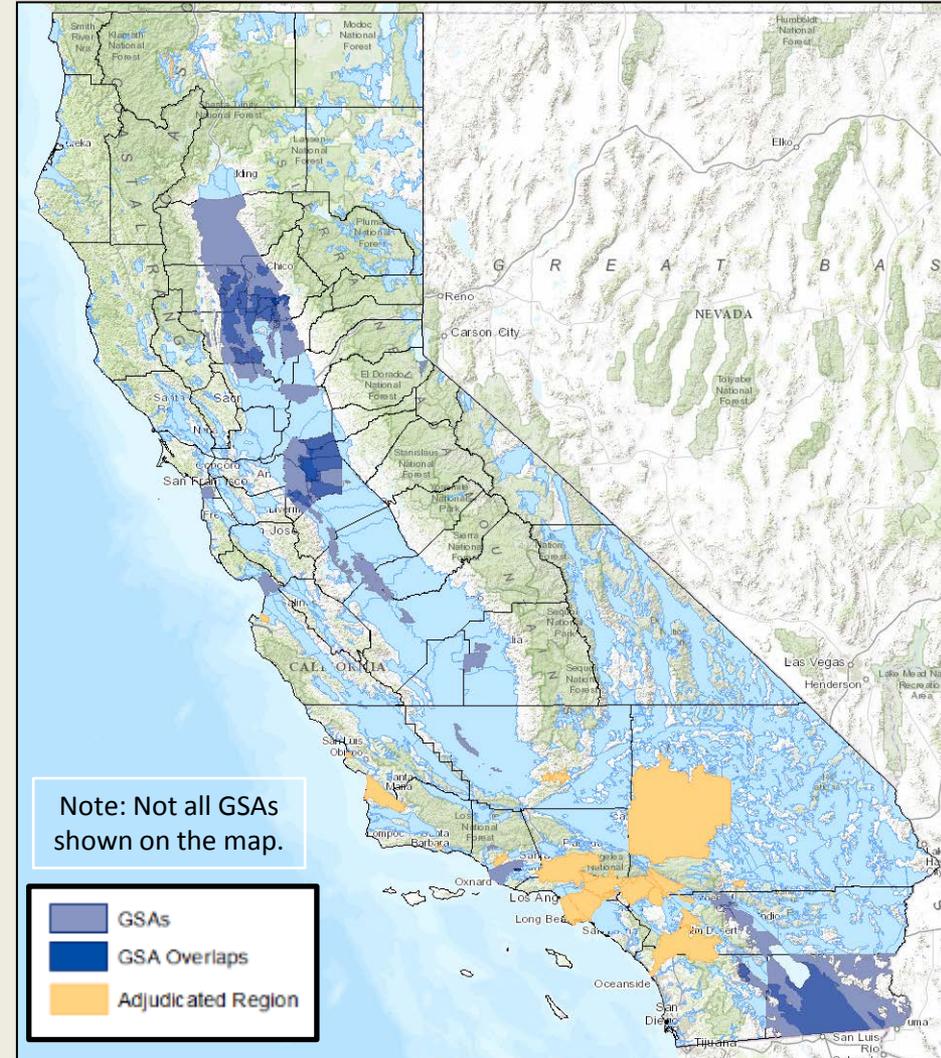


# Groundwater Sustainability Agency (GSA) Update

# Status of GSA Formation

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

- **69** separate GSA formation notices have been formed as of March 11, 2016
  - 44 have overlapping service area boundaries
- SB 13 requires
  - DWR to review GSA notices for completeness
  - Local Agencies required to resolve overlap
- GSAs required to address stakeholder interests





# GSA Website Information

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

SGM Sustainable Groundwater Management

## Groundwater Sustainability Agencies

- DWR has developed GSA Frequently Asked Questions
- DWR has updated its GSA Formation Notification Guidelines for Local Agencies
- DWR has updated the GSA Formation Table

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA requires, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The Department of Water Resources (DWR) is required to develop and adopt emergency regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements by June 1, 2016.

A GSP may be any of the following (Water Code § 10727(b)):

- A single plan covering the entire basin developed and implemented by one GSA.
- A single plan covering the entire basin developed and implemented by multiple GSAs.
- Subject to Water Code Section 10727.8, multiple plans implemented by multiple GSAs and coordinated pursuant to a single coordination agreement that covers the entire basin.

### DWR's Role in GSA Formation

Senate Bill (SB) 13 changed DWR's role with respect to reviewing, posting, and tracking GSA formation notices. These changes relate to: notification completeness reviews; overlapping GSA boundaries; and service area boundaries. For more information see DWR's [GSA Frequently Asked Questions](#). Also, DWR developed and has revised its [GSA Formation Notification Guidelines for Local Agencies](#) which outlines the information that must be submitted by a local agency(s) after it decides to become or form a GSA(s). DWR will use these GSA guidelines to perform completeness reviews for all GSA notices filed after January 1, 2016. Only complete GSA formation notices will be posted on DWR's [GSA Formation Table](#) and included on DWR's [GSA Interactive Map](#). The following summarizes DWR's approach and responsibilities with respect to GSA formation:

- DWR shall post all complete GSA formation notices received on its website within 15 days of receipt. (Water Code §10723.8(b))
- A complete GSA formation notice includes all of the following (Water Code §10723.8(a)):
  - ❑ Information that clearly shows the GSA formation notice was submitted to DWR within 30 days of the decision to become or form a GSA.
  - ❑ The service area boundaries, the boundaries of the basin or portion of the basin the agency intends to manage, and identification of any other agencies managing or proposing to manage groundwater within the basin.
  - ❑ A copy of the resolution or legal agreement forming the new agency.
  - ❑ A copy of any new bylaws, ordinances, or new authorities adopted by the local agency.
  - ❑ A list of interested parties developed pursuant to Water Code §10723.2 and an explanation of how their interests will be considered in the development and operation of the GSA and the development and implementation of the agency's sustainability plan.
- DWR will not post incomplete GSA formation notices.
- If two or more local agencies separately decide to become GSAs in all or a portion of the same area of a basin and create overlap (within 90-days of the initial posted notice), then no exclusive GSA will be identified by DWR until the overlap is resolved. (Water Code §10723.8(c) and (d))
- Only exclusive GSAs can coordinate to develop a GSP for a basin and submit that GSP to DWR for review.
- DWR has a [Facilitation Support Services](#) program that helps local agencies work through challenging institutional and technical situations.

DWR hosted a 90-minute webinar in November 2015 to address the SB 13 amendments to SGMA as they pertain to the formation of a GSA. The following information is available for use by local agencies and the public:

- [GSA Formation Notification Guidelines for Local Agencies](#) (revised 01/08/2016)

### GROUNDWATER HOME

#### SUSTAINABLE GROUNDWATER MANAGEMENT

- Basin Boundary Modifications
  - BBAT - Basin Boundary Assessment Tool
  - BEMRS - Basin Boundary Modification Request System

- Groundwater Sustainability Agencies
  - GSA Formation Table
  - GSA Interactive Map
  - GSA Notice Revisions

- Groundwater Sustainability Plan Regulations
  - Best Management Practices

- Critically Overdrafted Basins
  - Public Comments

- Initial Basin Prioritization
- Communication and Outreach
  - Advisory Groups
  - Statewide SIGMA Calendar
  - Region Office Contacts
  - Subscribe for Email Updates

- Resources
  - Water Mgmt. Planning Tool
  - SGWP Grant Program
  - Facilitation Support Services
  - SGMA Definitions
  - Related Links
  - SGM Archive

#### GROUNDWATER INFORMATION CENTER

- CASGEM
- BULLETIN 118



- GSA Frequently Asked Questions
- GSA Formation Guidelines
- November 2015 webinar information
  - DWR's role in GSA formation
  - Local agency's role
  - County's role
  - State Board intervention
- GSA Formation Table
  - Links to all GSA notices received
- GSA Interactive Map
  - Shapefiles of GSA areas
- GSA Notice Revisions



# Summary of Public Comments & Stakeholder Input to Date



# Summary of Public Comments & Stakeholder Input to Date

## Public Comments

- 5 Comments

## Joint Oversight Hearing

- Senate Natural Resources and Water Committee
- Assembly Water, Parks and Wildlife Committee

## Stakeholder Advisory Group Meetings

- California Water Foundation
- Practitioners Advisory Panel
- ACWA
- RCRC & CSAC (Counties)
- Non-Governmental Organizations
- Agricultural Community
- Local Government Commission
- San Joaquin Tributary Authority

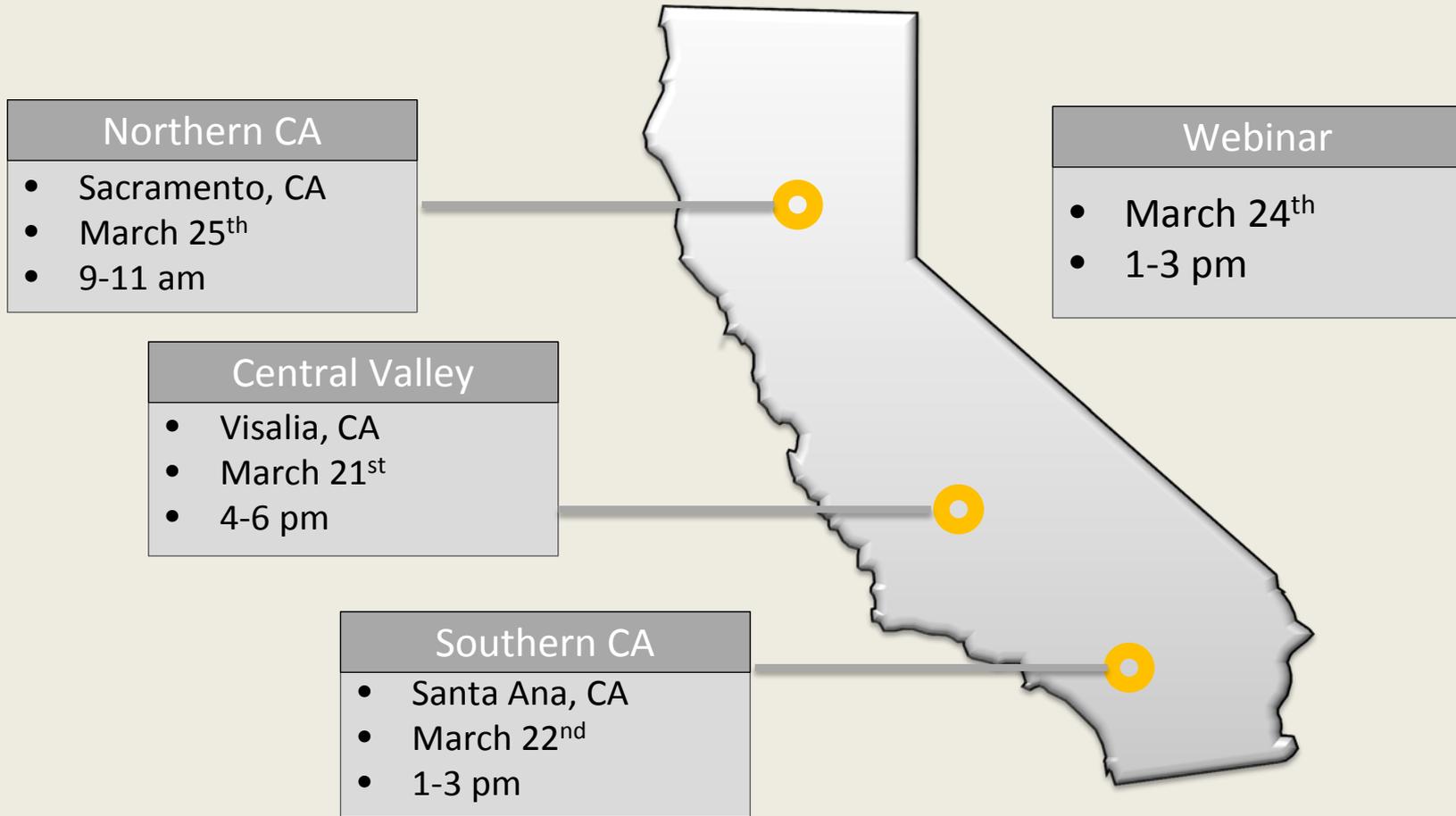
February 18<sup>th</sup>

43 Day Comment Period

April 1<sup>st</sup>



# GSP Public Meetings





# Summary of Public Comments & Stakeholder Input to Date

- Summarize Common Themes and Stakeholder Issues (This meeting)
- Summary of regulation revisions (April Meeting)
- DWR submits revised draft regulations to Commission (May Meeting)



# Common Themes and Stakeholder Issues

## **GSP and Alternative Regulation Articles**

### General Comments

1. Introductory Provisions
2. Definitions
3. Technical & Reporting Standards
4. Procedures
5. Plan Contents
6. Evaluation
7. Reports, Assessments, and Amendments
8. Coordination Agreements
9. Alternatives



# Common Themes and Stakeholder Issues

## GSP and Alternative Regulation Articles

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- 8. Coordination Agreements**
9. Alternatives

- Sustainability Timeline
- Local and DWR Roles
- Minimum Requirements
- Clarity



# Common Themes and Stakeholder Issues

## GSP and Alternative Regulation Articles

### General Comments

1. Introductory Provisions
2. Definitions
3. Technical & Reporting Standards
4. Procedures
- 5. Plan Contents**
  - Sustainable Mgmt. Criteria
    - Undesirable Results
    - Minimum Thresholds
    - Measurable Objectives
  - Clarity
6. Evaluation
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# Common Themes and Stakeholder Issues

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  - Substantial Compliance
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# Common Themes and Stakeholder Issues

## GSP and Alternative Regulation Articles

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- 5. Plan Contents**
- 6. Evaluation**
7. Reports, Assessments, and Amendments

### **8. Coordination Agreements**

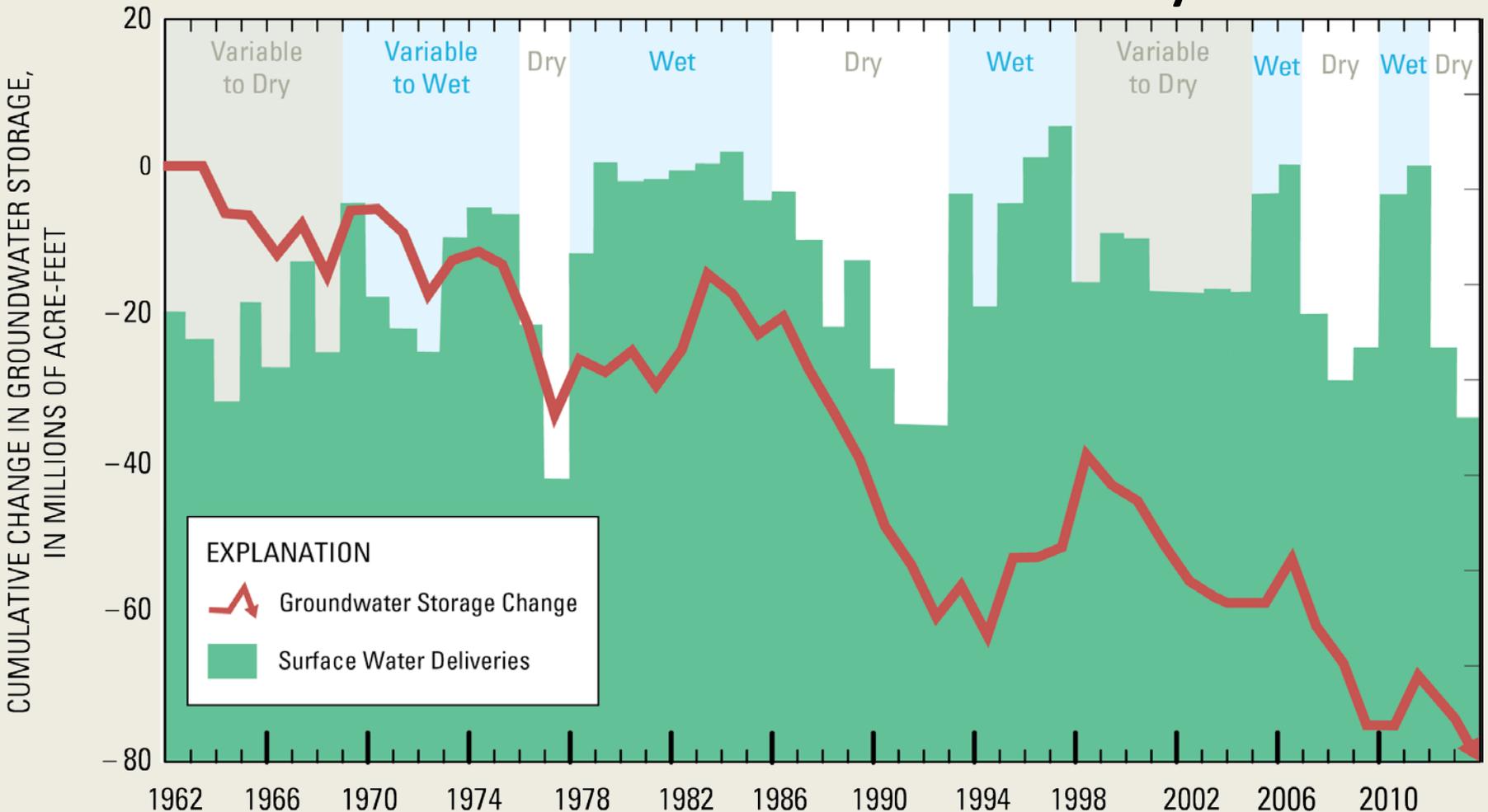
9. Alternatives

- Coordinating Agency
- Local and DWR Roles



# Sustainability Timeline

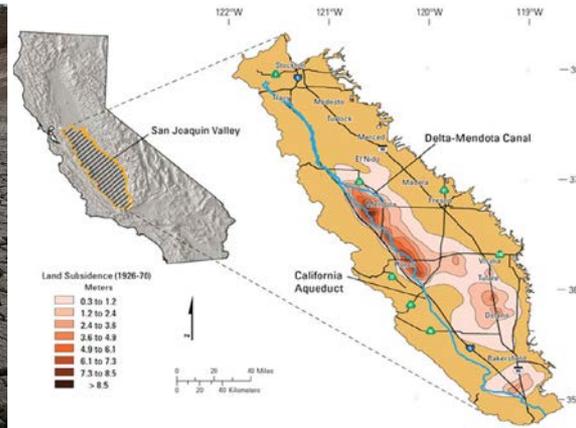
## Groundwater Use in Central Valley



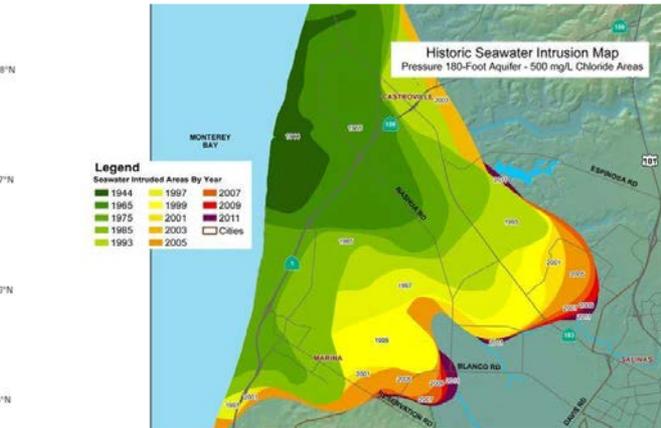
# Undesirable Results



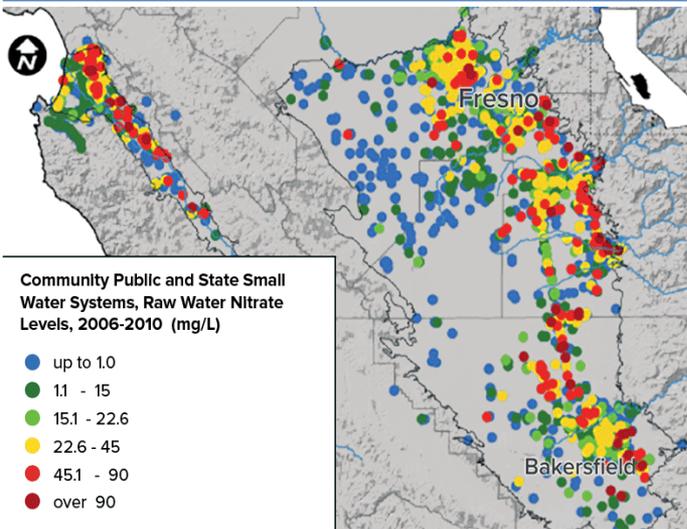
Lowering of GW Levels



Reduction of GW Storage



Seawater Intrusion



Water Quality Degradation



Land Subsidence

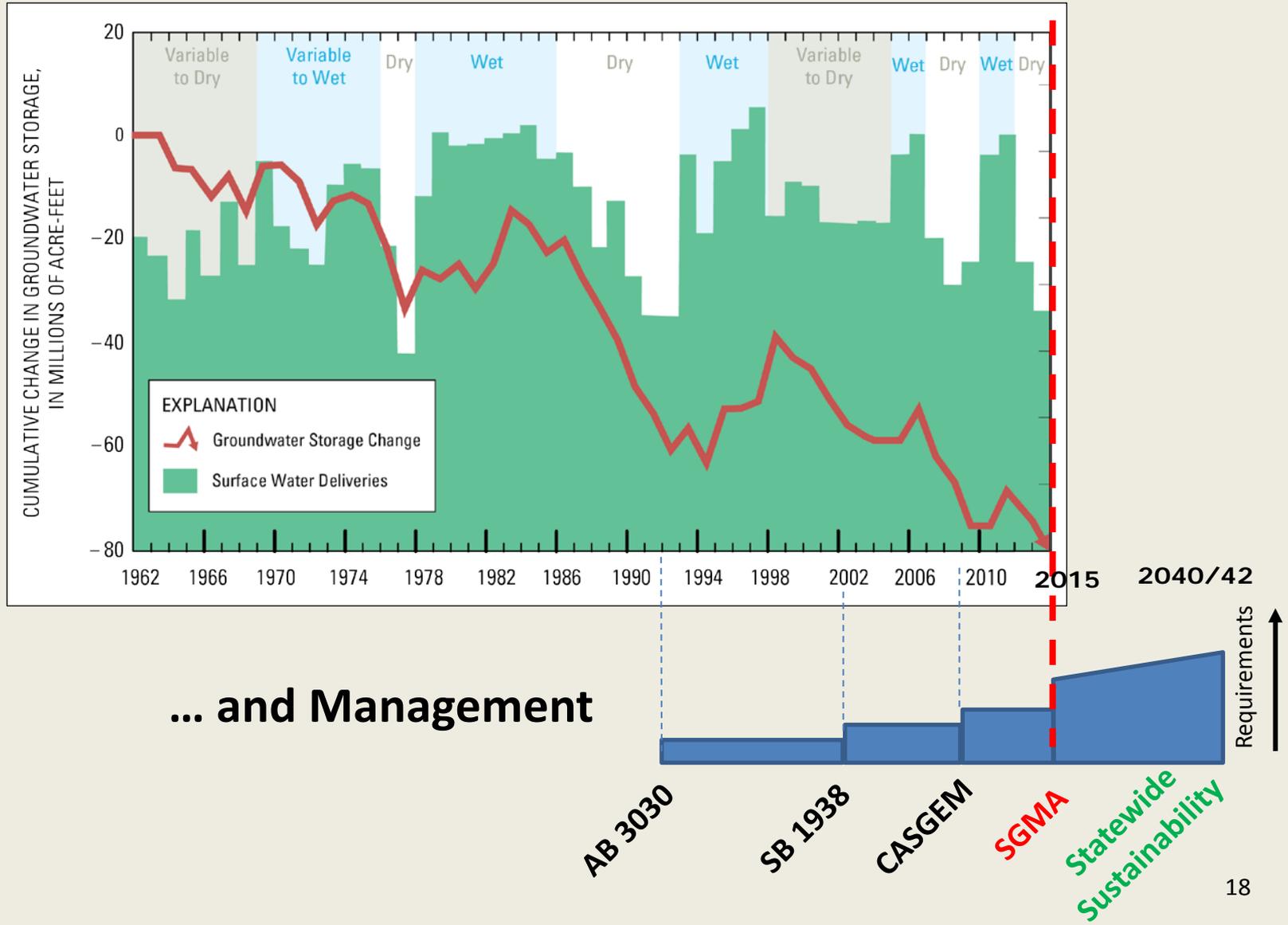


Depletion of Interconnected Streams

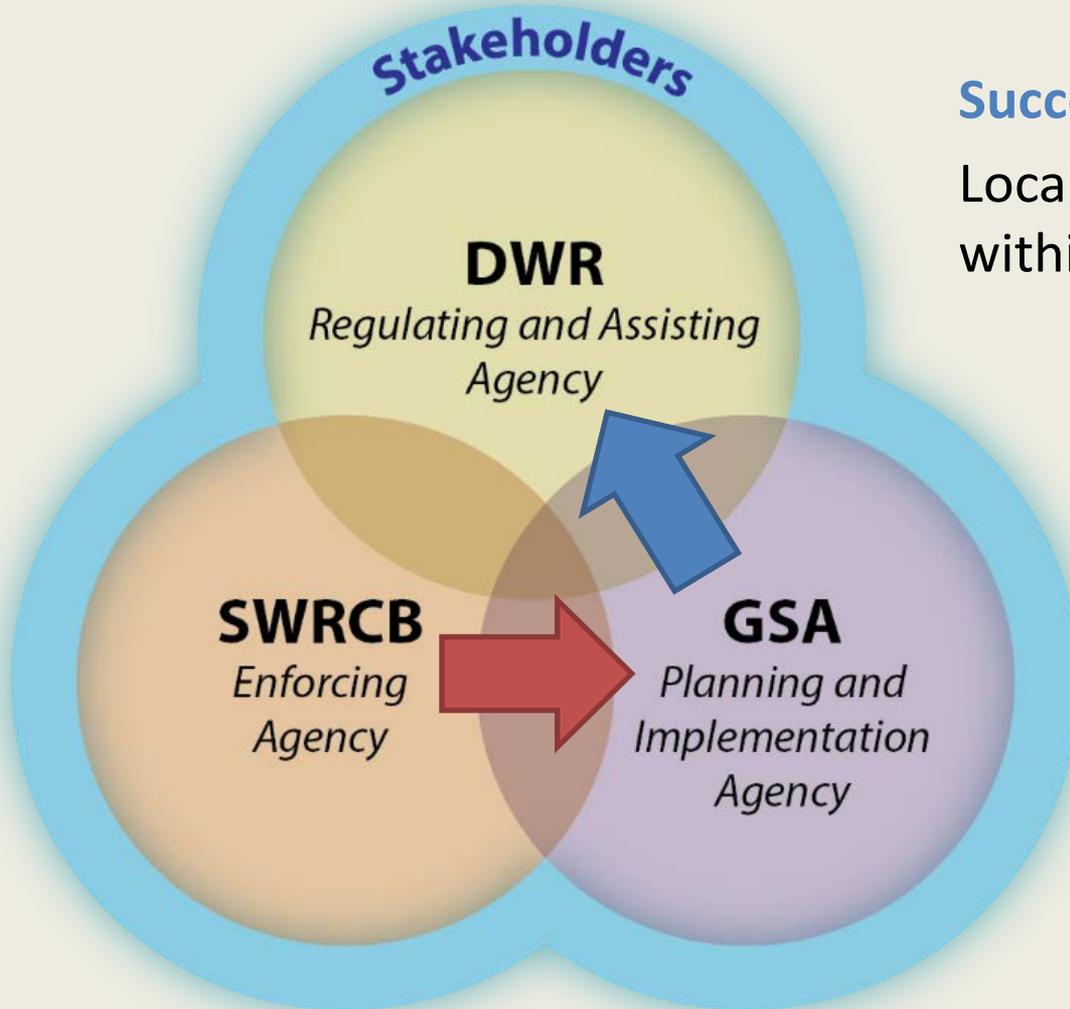


# Sustainability Timeline

## Groundwater Use in Central Valley



# Local and DWR Roles



## Success – “Local Control”

Locals develop and implement plans within new regulatory framework

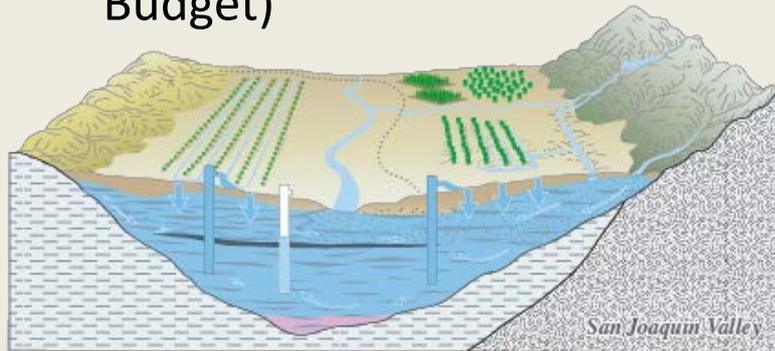
## Failure – “State Backstop”

State develops Plan for GSA to Implement

# Minimum Requirements

## Standardized Process

- Similar Statewide standards for evaluation
- Resolution of disputes
- Regulation Article
  - Technical Standards
  - Procedures
  - Plan Content (Hydrogeologic Conceptual Model, Water Budget)



Modified from Faunt, 2009

## Local Flexibility

- Statewide variability
  - Land use
  - Geology/Aquifer conditions
  - Water Supply/Demand
  - Stakeholder concerns
- Locally driven Plans
- Regulation Article
  - Sustainability Criteria
  - Monitoring
  - Projects and Actions
  - Evaluation Criteria



# Common Themes and Stakeholder Issues

## GSP and Alternative Regulation Articles

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# Sustainable Management Criteria

- § 354.24. Sustainability Goal (***Basin wide – Goal***)
- § 354.26. Undesirable Results (***Basin wide - Impacts***)
- § 354.28. Minimum Thresholds (***Site specific - Impacts***)
- § 354.30. Measurable Objectives (***Site specific – Goals***)

# Sustainable Management Criteria

## § 354.24. Sustainability Goal

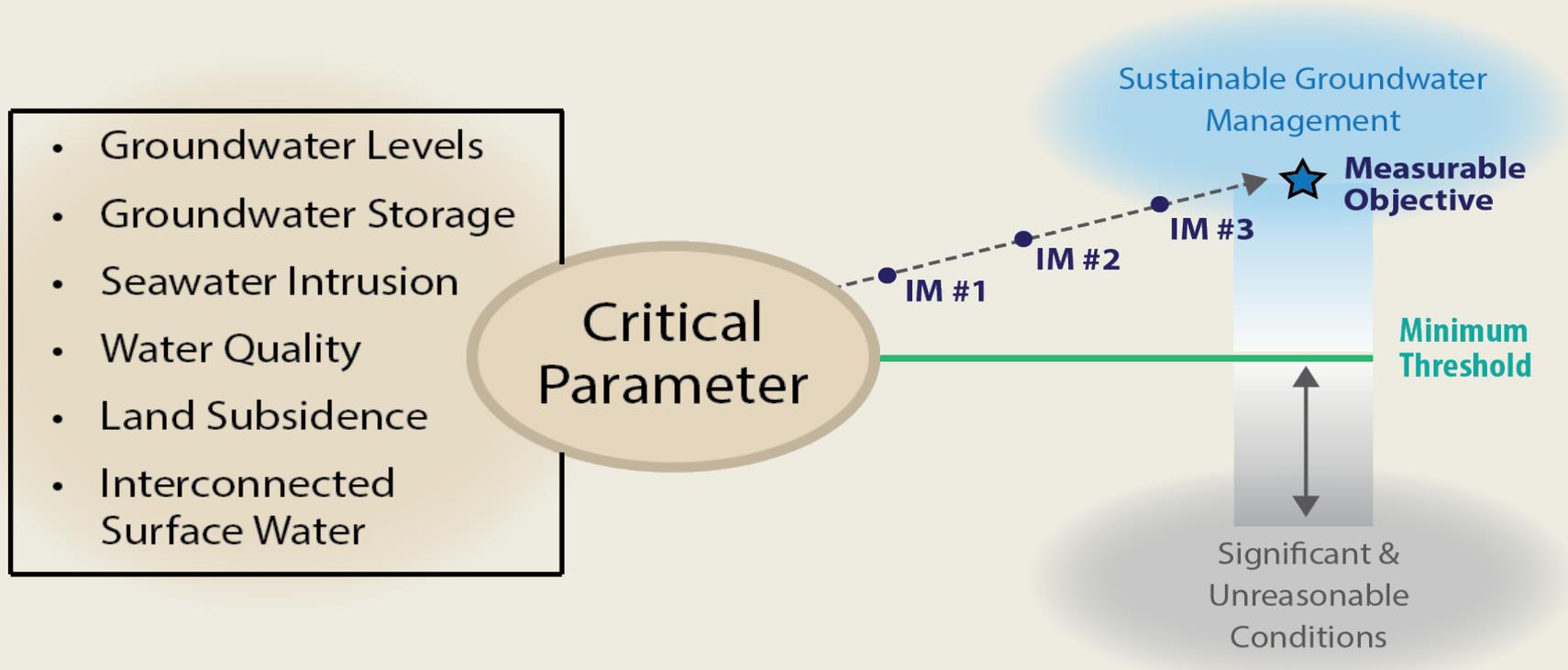
- A single sustainability goal for the basin
- Achieved within 20 years of GSP implementation
- Maintained without causing undesirable results



# Sustainable Management Criteria

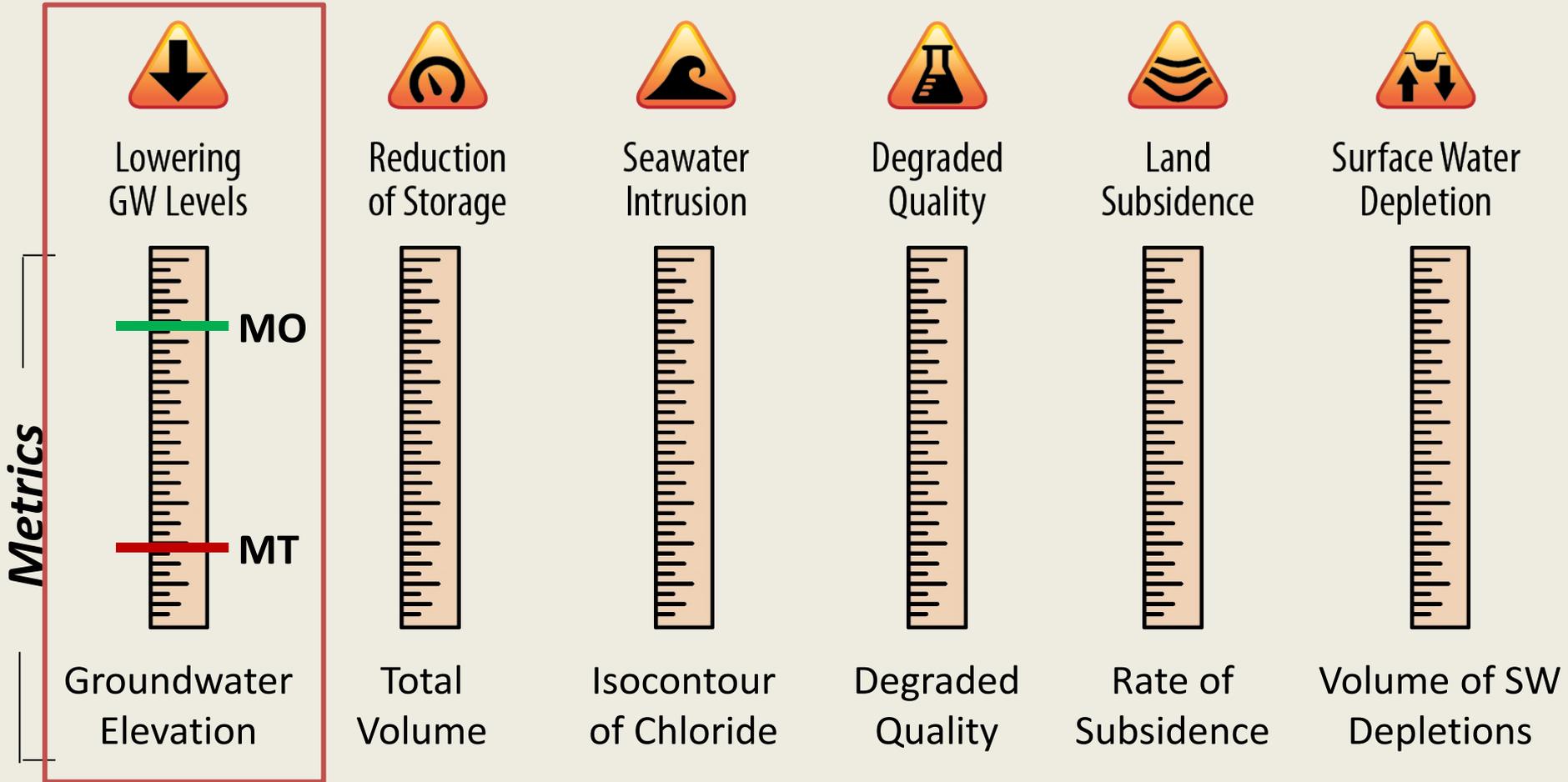
## § 354.28. Minimum Thresholds (MT)

- Required for each critical parameter
- Numeric values that define site specific conditions that, if exceeded, become significant and unreasonable
- Statewide Framework Requirements



# Minimum Threshold Metrics - Statewide Framework -

## Critical Parameters

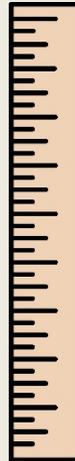


\*Groundwater Elevations - can be used for multiple minimum thresholds

# Minimum Threshold Metrics - Statewide Framework -



Lowering  
GW Levels

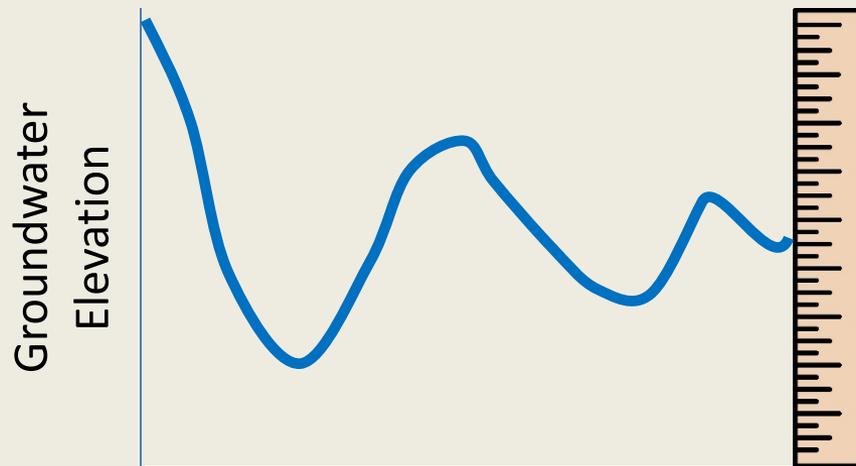


Groundwater  
Elevation

# Minimum Threshold Metrics - Statewide Framework -



Lowering  
GW Levels

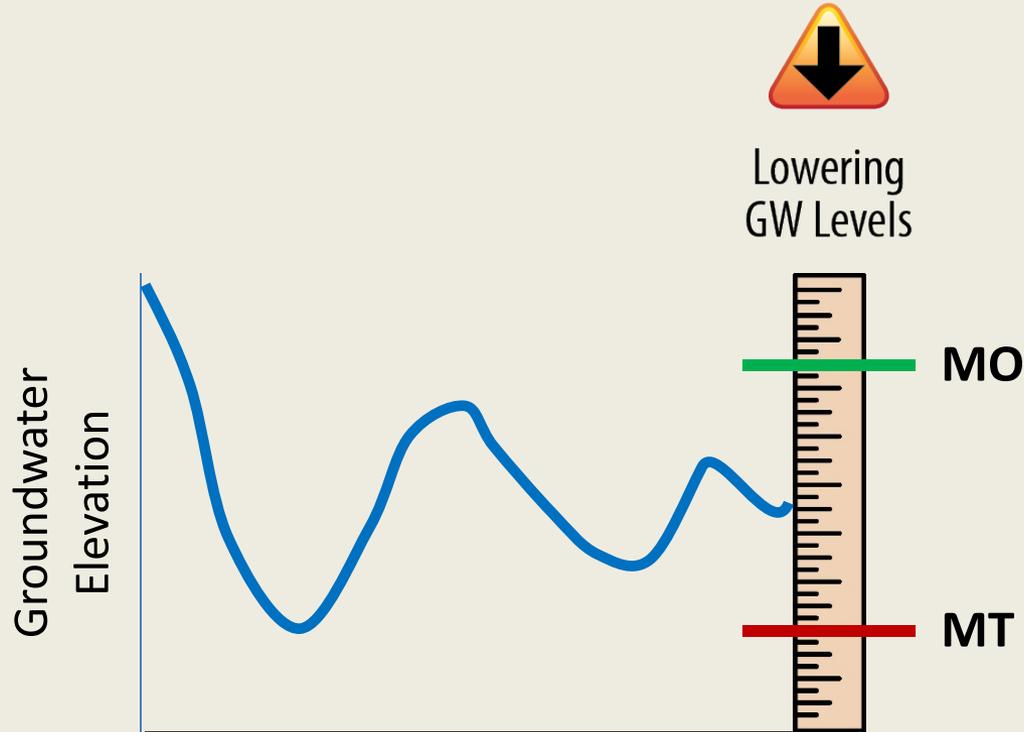


## Step 1 – Existing Data

- Admin. Info
- Basin Setting

Initial GSP

# Minimum Threshold Metrics - Statewide Framework -



## Step 1 – Existing Data

- Admin. Info
- Basin Setting

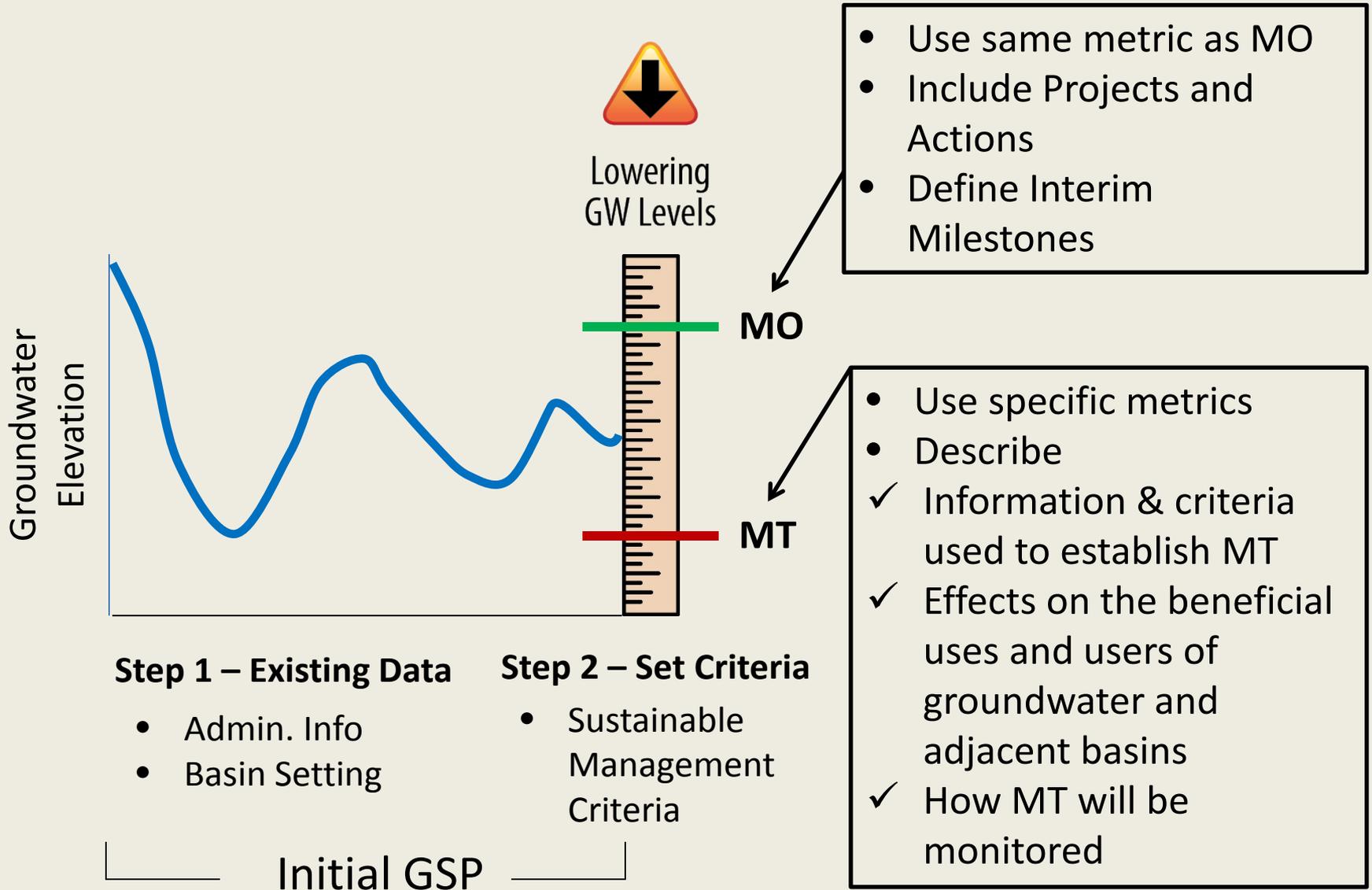
## Step 2 - Set Criteria

- Sustainable Management Criteria

Initial GSP

# Minimum Threshold Metrics

## - Statewide Framework -



# Minimum Threshold Requirements

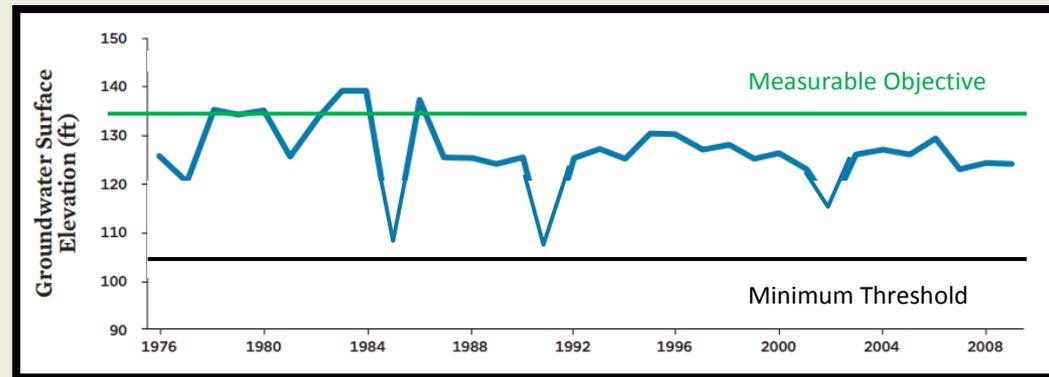


## Chronic Lowering of Groundwater Levels:

**Metric:** Groundwater Elevation

### Supported by:

- Rate of elevation decline based on historical trends and projected water use in basin
- Effects on other critical parameters
- Management of extractions and recharge
  - Drought vs Normal periods



### Existing Management Practices:

- Basin Management Objectives (BMOs), thresholds, trigger levels

# Minimum Threshold Requirements

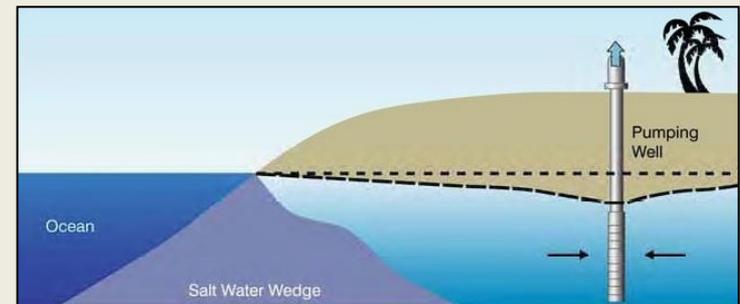
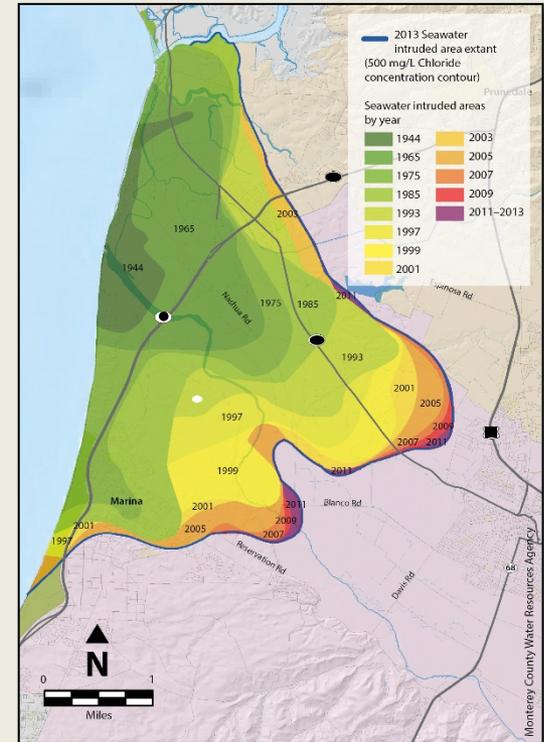


## Seawater Intrusion:

**Metric:** Isoconcentration contour of chloride

**Supported by:**

- Sustainable Yield
- Historical trends and projected water use based on water year type
- Existing Management Practices:
  - BMO's, thresholds, trigger levels



Groundwater Elevations - Can be used for multiple minimum thresholds



# Common Themes and Stakeholder Issues

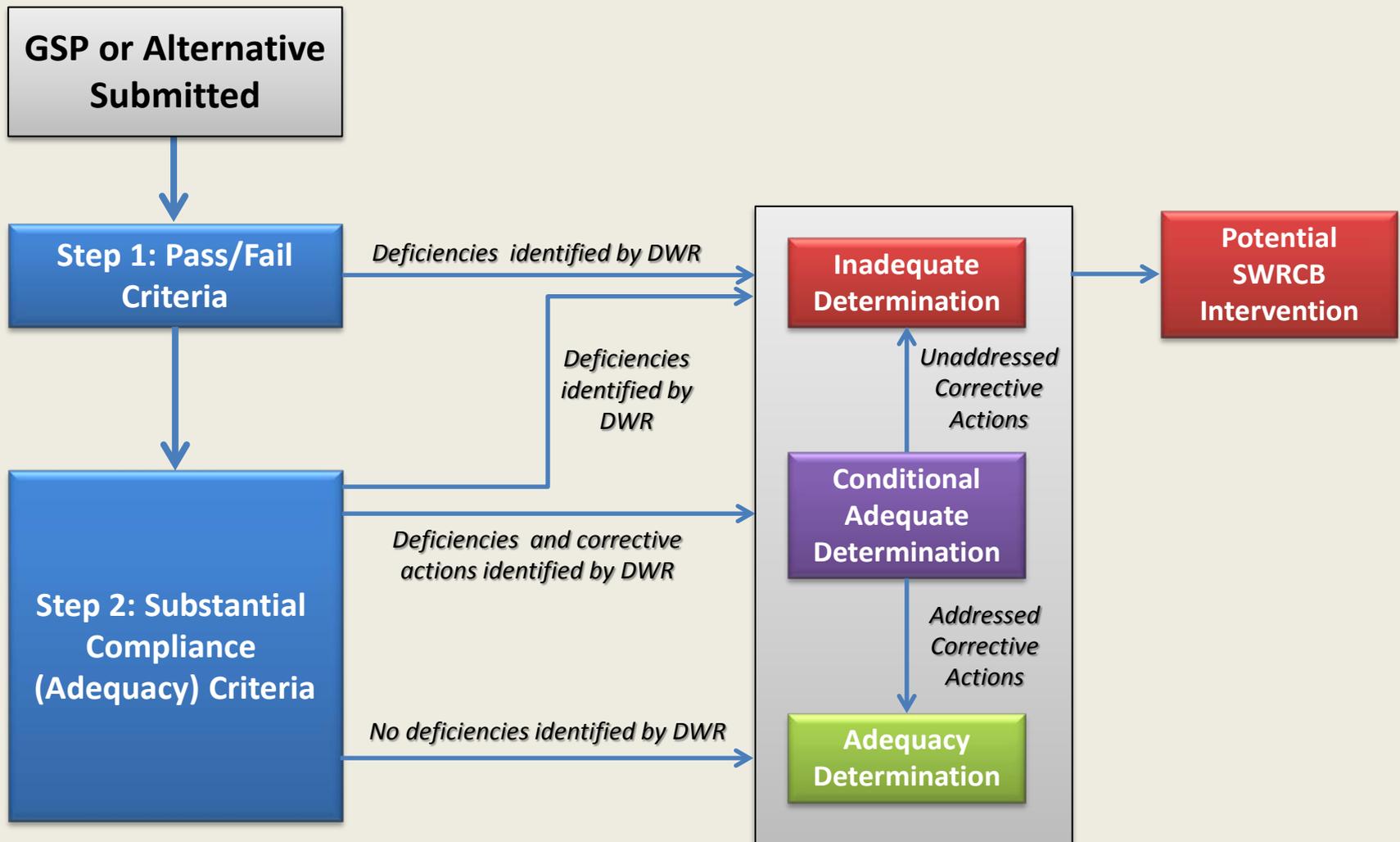
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# Evaluation and Assessment

## § 355.4. Criteria for Plan Evaluation





# Common Themes and Stakeholder Issues

## GSP and Alternative Regulation Articles

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### **8. Coordination Agreements**

9. Alternatives

- Coordinating Agency
- Local and DWR Roles

# GSP Coordination

## Options for GSA Formation and GSP Development

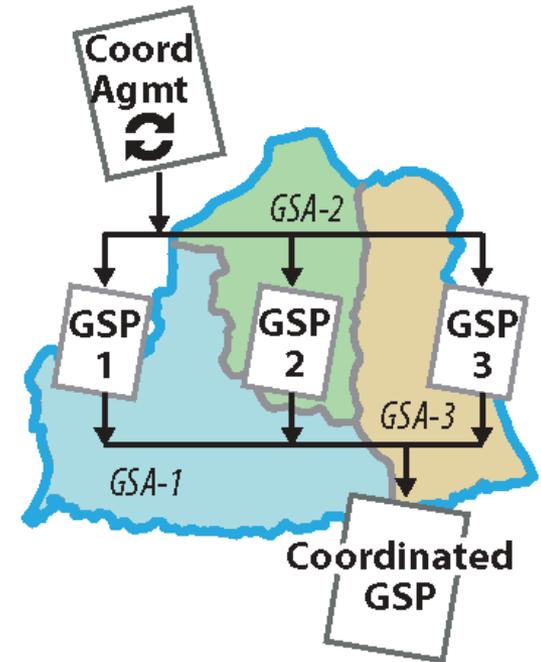
### One GSA, One GSP



### Multiple GSAs, One GSP with optional Coordination Agreement



### Multiple GSAs, Multiple GSPs with required Coordination Agreement



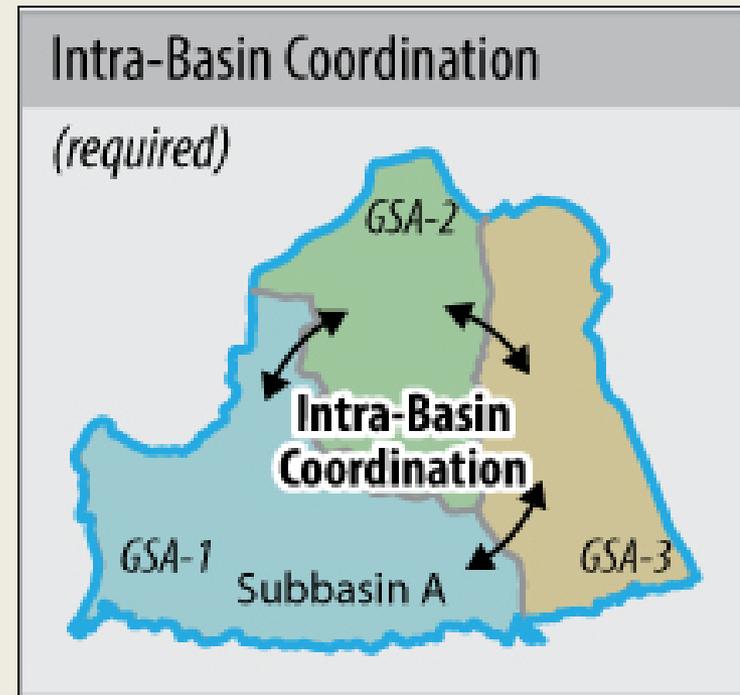
- Coordination agreement is optional, *but* recommended
- Identification of a *Coordinating Agency* is required

- A single coordination agreement that covers the entire basin is required
- Identification of a *Coordinating Agency* is required

# Coordination Agreements

## § 357.4. Intra-basin Coordination

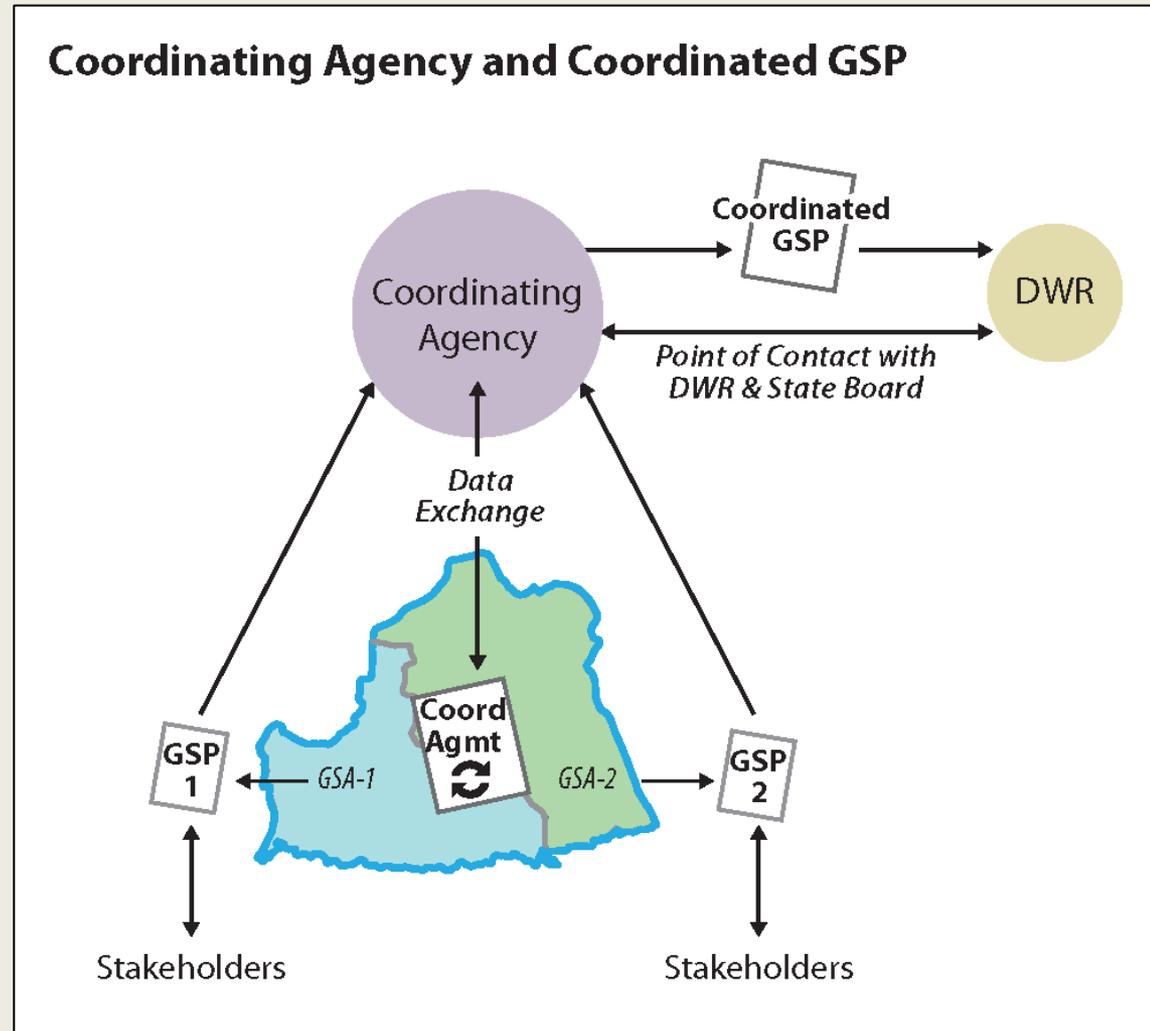
- Mandatory requirement for multiple GSPs
- Recommended if multiple GSAs intend to prepare a single GSP
- Responsibilities of each GSA defined in the agreement
- Identification of a Coordinating Agency that shall be the single point of contact for the entire basin



# Coordination Agreement and Agency



- GSA or other authorized entity
- Represents two or more GSAs or GSPs for a basin
- Sole point of contact for DWR
- Responsible for submitting coordinated GSP





# Next Steps

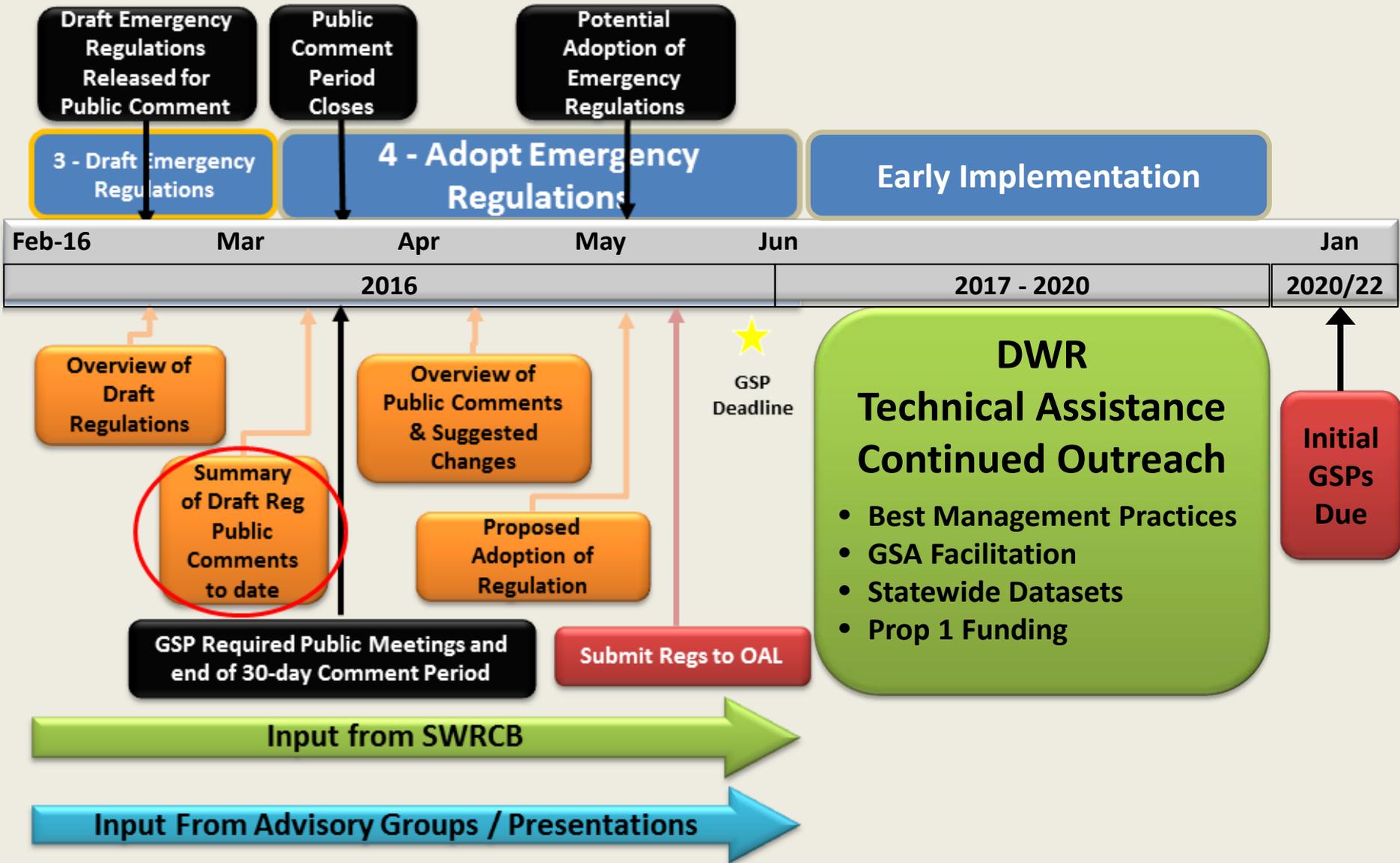


# Next Steps

- **March 21 - 25** – Public Meetings to Consider Public Comments
- **April 1** - Public Comment Period Closes
- **April 20** - Present Summarized Public Comments to CWC
- **May** - Present Proposed Emergency Regulations to CWC for adoption.
- **June** - Submit Adopted Emergency Regulations to Office of Administrative Law.



# Timeline/Next Steps





# How to Provide Input

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

## DWR Welcomes Feedback on Draft Regulations

- Email & written comments
- California Water Commission meetings (March-May)

## DWR will be Holding Four Public Meetings

- Visalia (March 21)
- Orange County (March 22)
- Webinar (March 24)
- Sacramento (March 25)

The screenshot shows the California Department of Water Resources website. The main heading is "SGM Sustainable Groundwater Management". Below this, it says "Public Comments - Draft GSP Emergency Regulations". A sub-heading reads "Comments Received on Draft GSP Emergency Regulations". A paragraph explains that the formal comment period began on February 18, 2016, and will close on March 25, 2016. Below this is a table of comments received.

Commenter(s)	Submitted By	Date
County of Kings	Erik D. Kaeding	03/03/2016
DUDEK Engineering + Environmental	Matt Nafaty	02/23/2016
City of Solvang	Matt van der Linden	02/22/2016
Law Office of Patrick J. Maloney	Tom Virsik	02/22/2016

Showing 1 to 4 of 4 entries

Navigation: Previous 1 Next

Right sidebar: GROUNDWATER HOME, SUSTAINABLE GROUNDWATER MANAGEMENT, Adjudicated Basin Reporting, Basin Boundary Modifications, BBAT - Basin Boundary Assessment Tool, BBMRS - Basin Boundary Modification Request System, Critically Overdrafted Basins, Communication and Outreach Advisory Groups, Statewide SGMA Calendar, Region Office Contacts, Subscribe for Email Updates, Groundwater Sustainability Agencies, GSA Formation Table, GSA Interactive Map.

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**Mail:** CA Dept. of Water Resources  
Attn: Lauren Bisnett  
P.O. Box 942836  
Sacramento, CA 94236