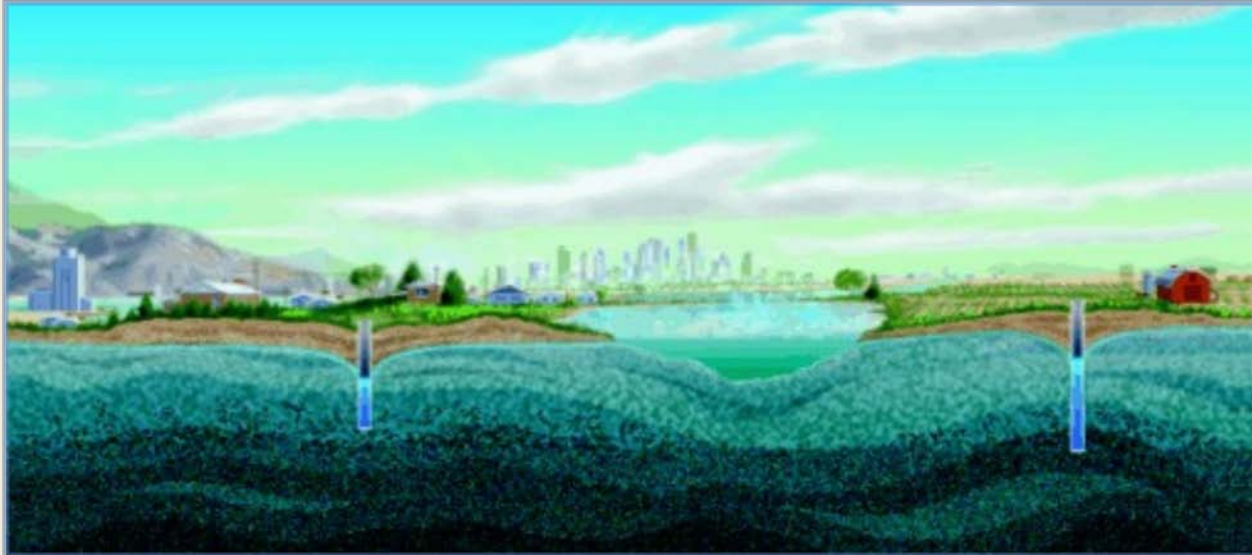


Sustainable Groundwater Management



Delta-Mendota Subbasin
March 2017



The Sustainable Groundwater Management Act of 2014

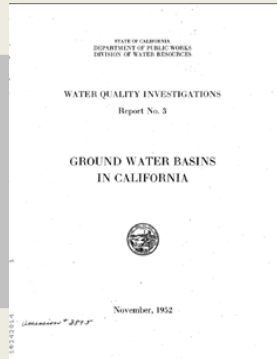


“...recognition that groundwater management in California is best accomplished locally.”



Development of California Groundwater Basins and Subbasins

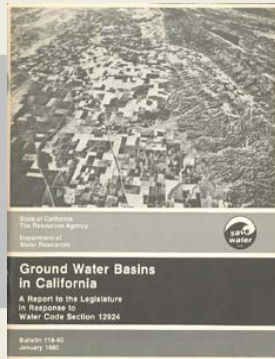
- Groundwater Basins & Subbasins Are Defined in DWR Bulletin 118 Using the Best Available Data
- Modifications to Basin Boundaries Have Occurred During B-118 Updates



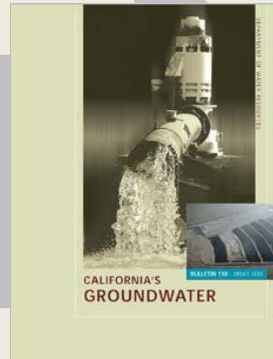
1952



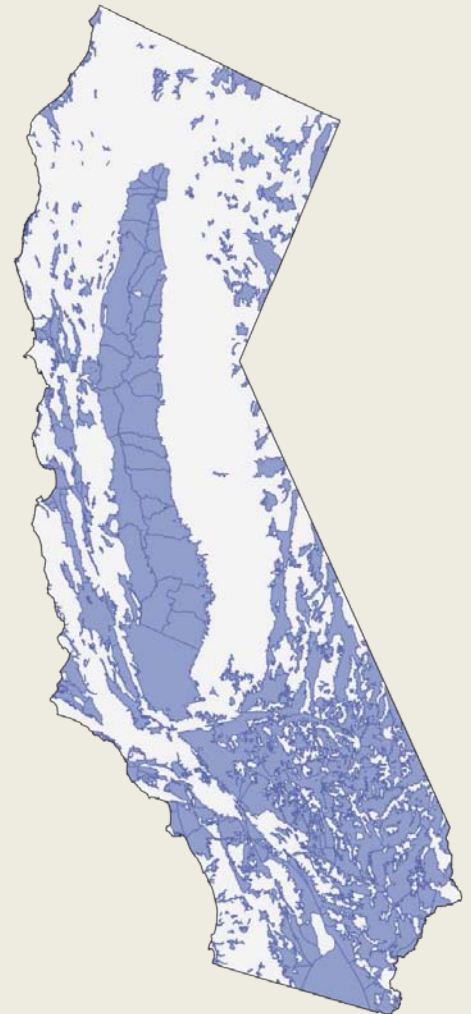
**Bulletin
118
1975**



**Bulletin
118
1980**

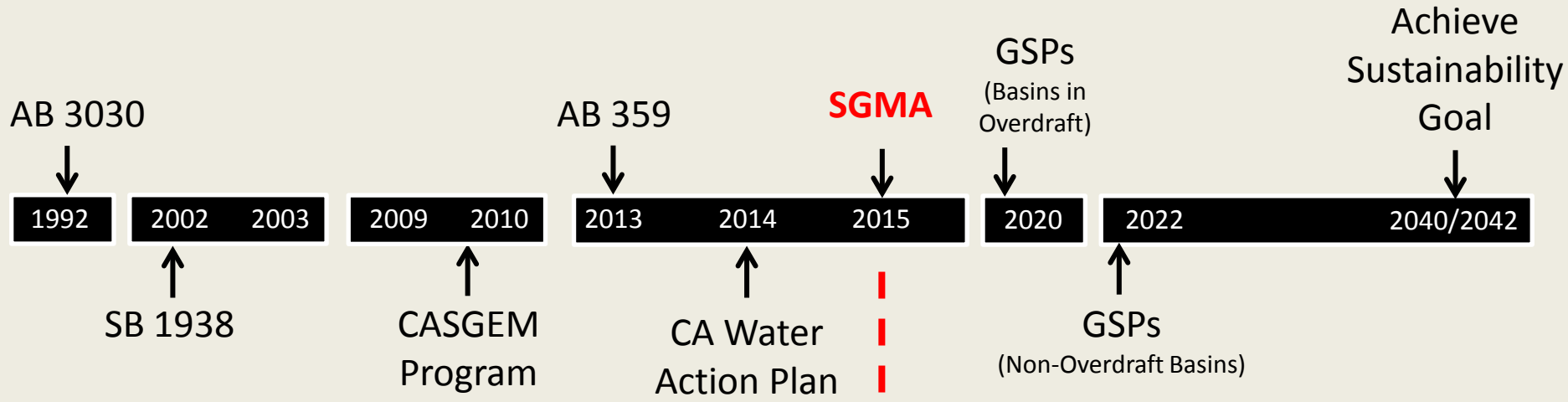


**Bulletin
118
2003**



Background

California's Major Groundwater Milestones



Voluntary Groundwater Management

- Service Area Planning
- Variable Levels of Implementation
- Variable Authority
- Grant Incentives

Required Groundwater Management

- Entire Basin Planning
- Required Implementation
- New GSA Authorities
- State Backstop (SWRCB)



Groundwater Sustainability Agencies

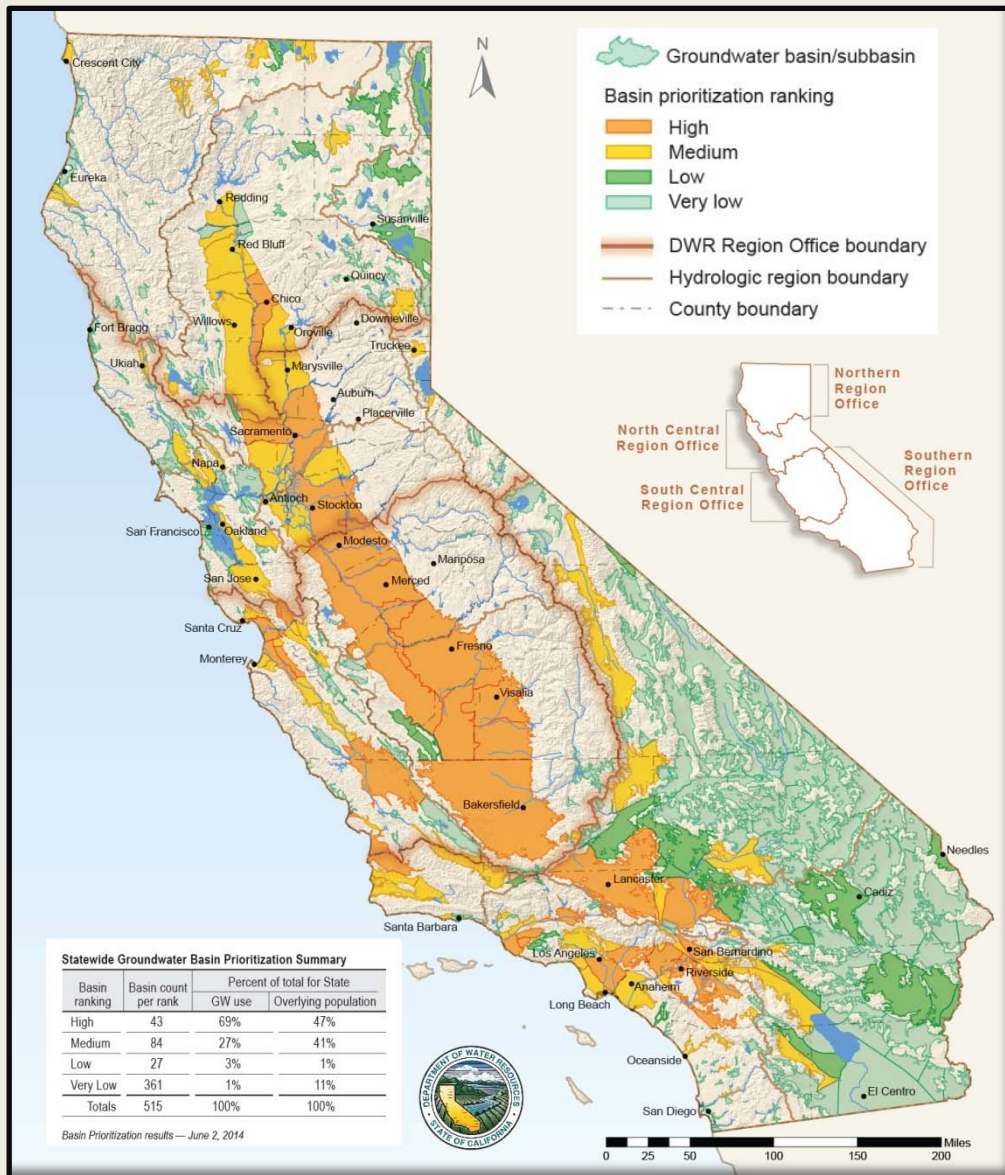
Groundwater Sustainability Agency - means one or more local agencies that may impose fees or take other actions to develop and enforce a groundwater sustainability plan

Local Agency – A local public agency that has water supply, water management, or land use responsibilities within a groundwater basin

**May be one or more GSA's within each basin or subbasin but must coordinate together*



CASGEM Basin Prioritization



Statewide Breakdown

Basin Ranking	Basin Count per Rank	Percent of Total for Hydrologic Region	
		GW Use	Overlying Population
High	43	69%	47%
Medium	84	27%	41%
Low	27	3%	1%
Very Low	361	1%	11%
Totals	515	100%	100%

127 High & Medium Priority basins

- 96% of groundwater use
- 88% of overlying population

<http://www.water.ca.gov/groundwater/casgem/>



SGMA Overview

- Required for High- and Medium Priority Basins
- Empowers GSAs
 - Register groundwater wells
 - Measure extractions
 - Manage extractions
 - Require reports
 - Assess fees
- County 'Presumption' as GSA
- State 'Backstop'
- Requires Sustainability Goal



SGMA Activity

2015 and 2016

- ✓ **Initial Basin Prioritization:** §10723.4
 - Completed by January 31, 2015
- ✓ **Regulations for Modifying Groundwater Basin Boundaries:** §10722.2
 - Completed by January 1, 2016
- ✓ **Identification of Critically Overdrafted Basins:** §12924
 - Completed January 2016, Updated October 2016
- ✓ **Groundwater Sustainability Plan and Alternatives Regulations:** §10733.2
 - Completed May 18, 2016
- ✓ **Basin Boundary modification (Round 1)**
 - Completed October 11, 2016
- ✓ **Water Available for Replenishment:** §10729(c)
 - Due December 31, 2016

2017 and 2018

- ✓ **Bulletin 118:** §12924
 - ✓ **Interim Update** due by January 2017
 - Comprehensive Update due 2020
- ✓ **Best Management Practices:** §10729(d)
 - Due January 1, 2017
- **Revised Basin Prioritization**
 - Estimate summer 2017
- **Alternative Plan Reviews**
 - Begin January 2017
- **Groundwater Sustainability Agency Formation:** §10723
 - Due by June 30, 2017
- **Prop 1 – SGM Grant Program (Round 2)**
 - Summer 2017 (Tentative)
- **Basin Boundary Modification (Round 2)**
 - Early 2018 (Tentative)



GSA/GSP options within a Basin

Single GSA, Single GSP



Multiple GSAs, One GSP with optional Interbasin Agreement

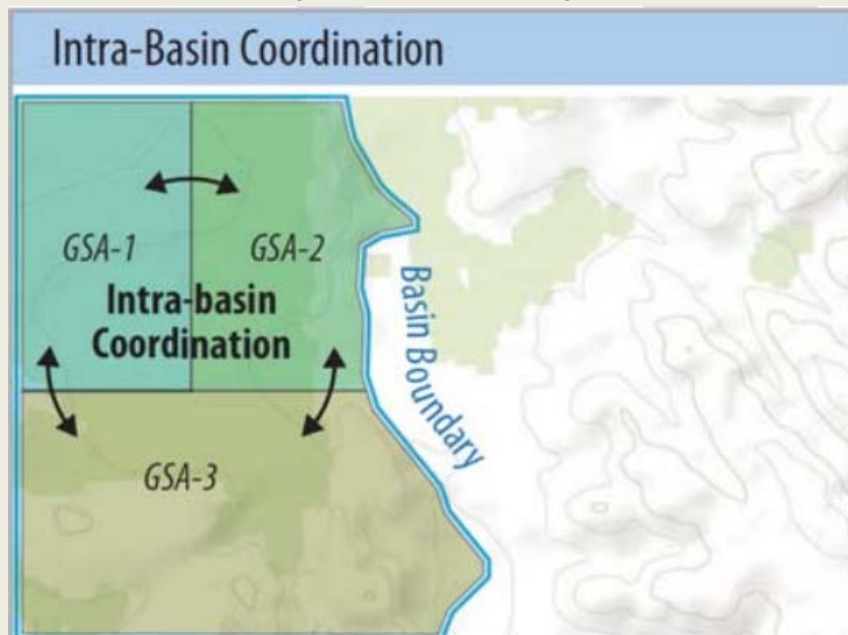


Multiple GSAs, Multiple GSPs with required Coordination Agreement



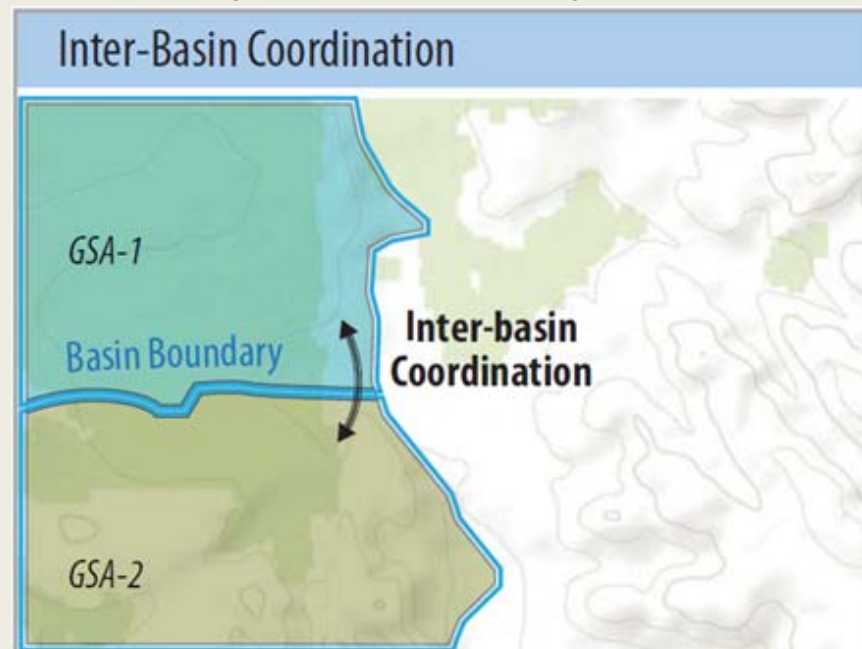
GSP Coordination

Intra-Basin
(within basin)



- Coordination Agreement is required if there are multiple GSPs in basin (§10727.6)

Inter-Basin
(between basins)

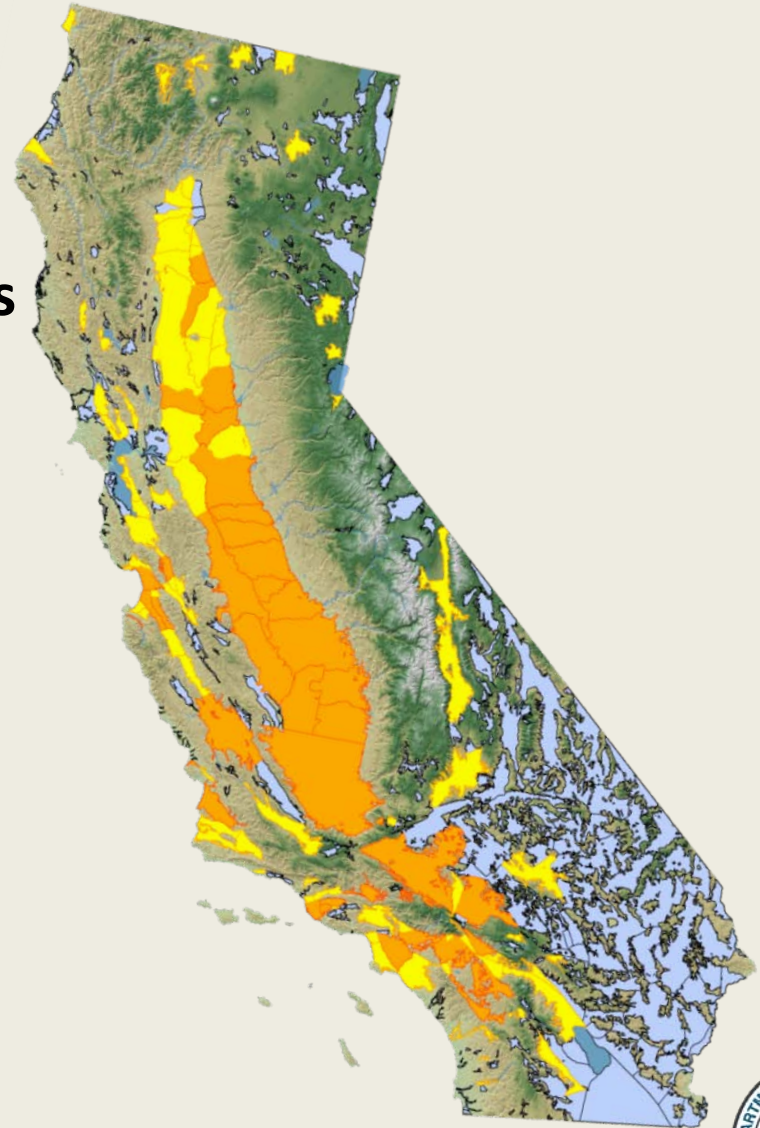


- DWR shall evaluate if one GSP adversely affects an adjacent GSP (§10733(c))

§10721(d) “Coordination agreement” means a legal agreement adopted between two or more groundwater sustainability agencies that provides the basis for coordinating multiple agencies or groundwater sustainability plans within a basin pursuant to this part.

GSP Regulation Articles

1. **Introductory Provisions**
2. **Definitions**
3. **Technical & Reporting Standards**
4. **Procedures**
5. **Plan Contents**
6. **Department Evaluation & Assessment**
7. **Annual Reports and Periodic Evaluations by the Agency**
8. **Interagency Agreements**
9. **Alternatives**



Article 5. Plan Contents

1. Administrative Information

- § 354.4. General Information
- § 354.6. Agency Information
- § 354.8. Description of Plan Area
- § 354.10. Notice & Communication

2. Basin Setting

- § 354.14. Hydrogeologic Conceptual Model
- § 354.16. Groundwater Conditions
- § 354.18. Water Budget
- § 354.20. Management Areas

3. Sustainable Management Criteria

- § 354.24. Sustainability Goal
- § 354.26. Undesirable Results
- § 354.28. Minimum Thresholds
- § 354.30. Measureable Objectives

4. Monitoring Networks

- § 354.34. Monitoring Network
- § 354.36. Representative Monitoring
- § 354.38. Assessment & Improvement
- § 354.40. Reporting Monitoring Data to the Department

5. Projects and Management Actions

- § 354.44. Projects & Management Actions

Undesirable Results

Significant and Unreasonable



Lowering
GW Levels



Reduction
of Storage



Seawater
Intrusion



Degraded
Quality



Land
Subsidence



Surface Water
Depletion

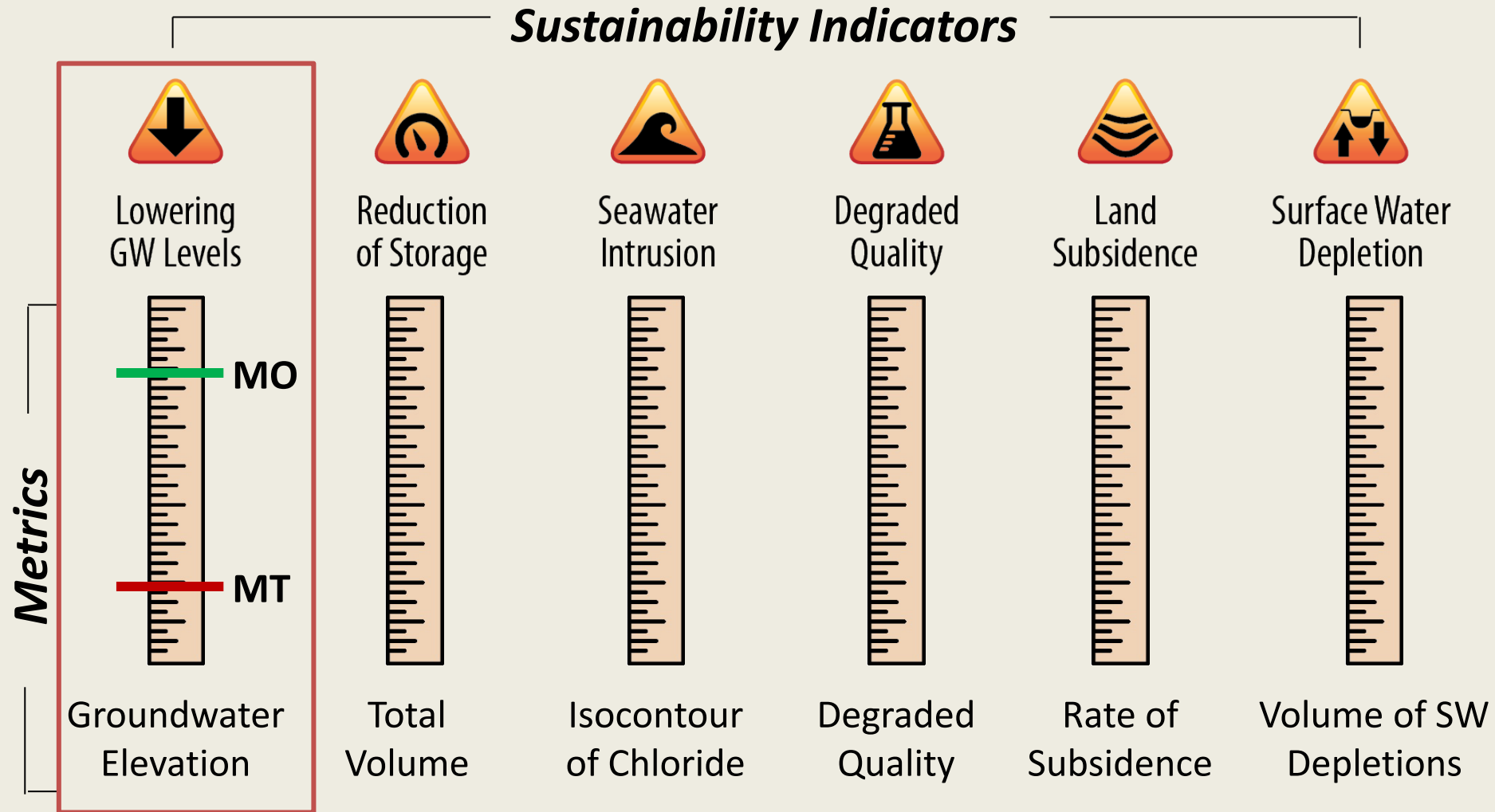
Sustainable Management Criteria

§ 354.24. Sustainability Goal

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



Minimum Threshold Metrics



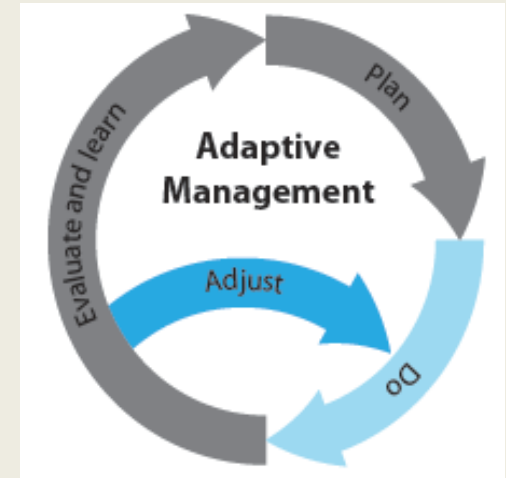
***Groundwater Elevations - can be used for multiple minimum thresholds**

GSP – DWR Review and Compliance

- GSP Submittal – 60 day (min.) comment period
- DWR review within 2 years

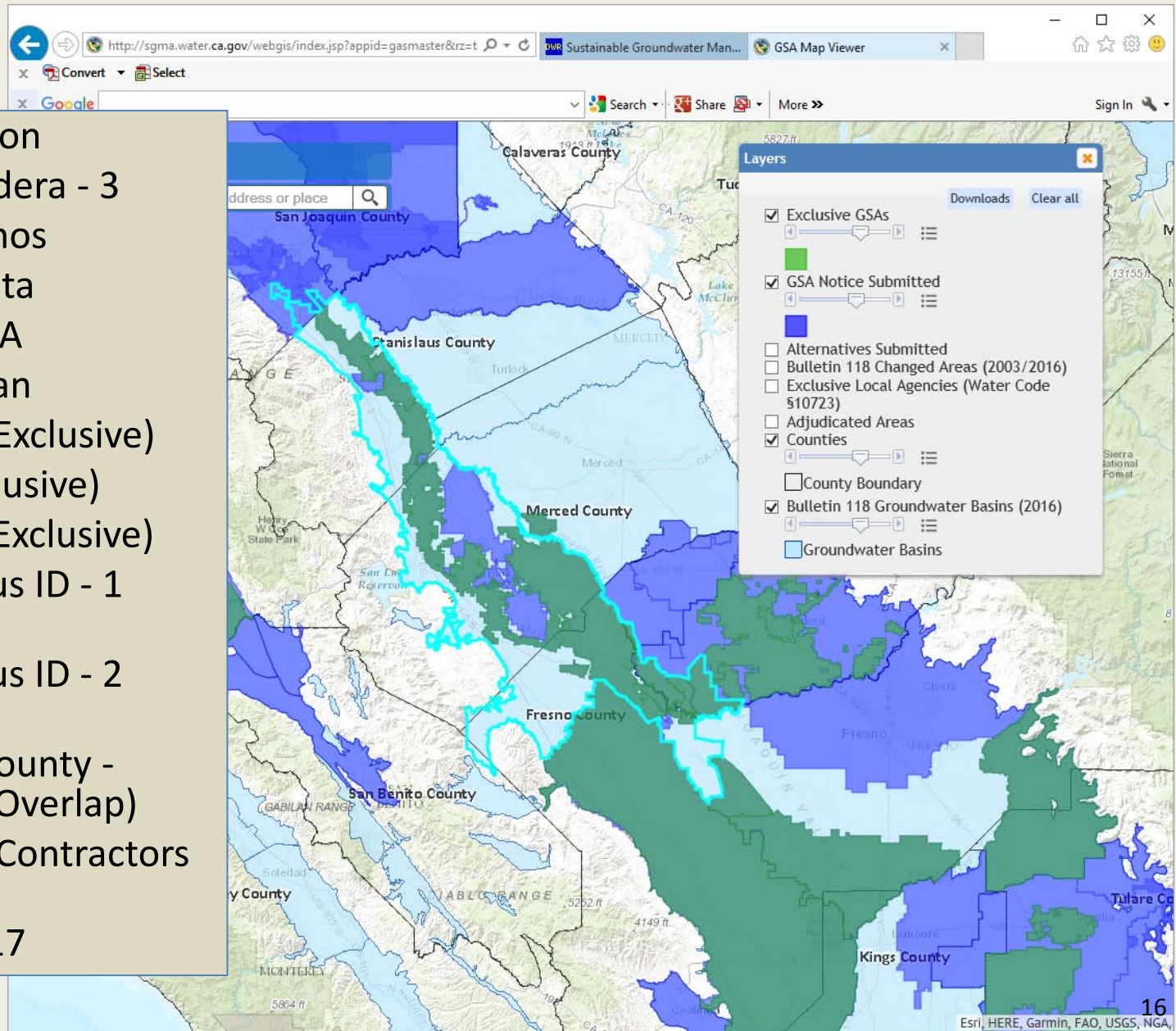
Review Criteria

- Pass/Fail?
 - On time, complete, entire basin
- Substantial compliance?
 - Approved
 - Incomplete - Some deficiencies to correct
 - Inadequate



Delta-Mendota GSA Status

- City of Patterson
- County of Madera - 3
- City of Los Banos
- City of Mendota
- Grasslands GSA
- City of Newman
- Farmers WD (Exclusive)
- Aliso WD (Exclusive)
- Patterson ID (Exclusive)
- West Stanislaus ID - 1 (Exclusive)
- West Stanislaus ID - 2 (Overlap)
- San Joaquin County - Tracy & D-M (Overlap)
- SJR Exchange Contractors (Exclusive)
- *March 6, 2017



DWR & SGMA Resources

- **DWR SGMP Website**

www.water.ca.gov/groundwater/sgm/index.cfm

- **Subscribe to DWR SGMP Email List**

www.water.ca.gov/groundwater/sgm/subscribe.cfm

- **GIC Interactive Map (water level & subsidence maps)**

www.water.ca.gov/groundwater/MAP_APP/index.cfm

- **SGMA Water Management Planning Tool (boundaries map)**

www.water.ca.gov/groundwater/boundaries.cfm

