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# **SUSTAINABLE GROUNDWATER MANAGEMENT ACT OF 2014**

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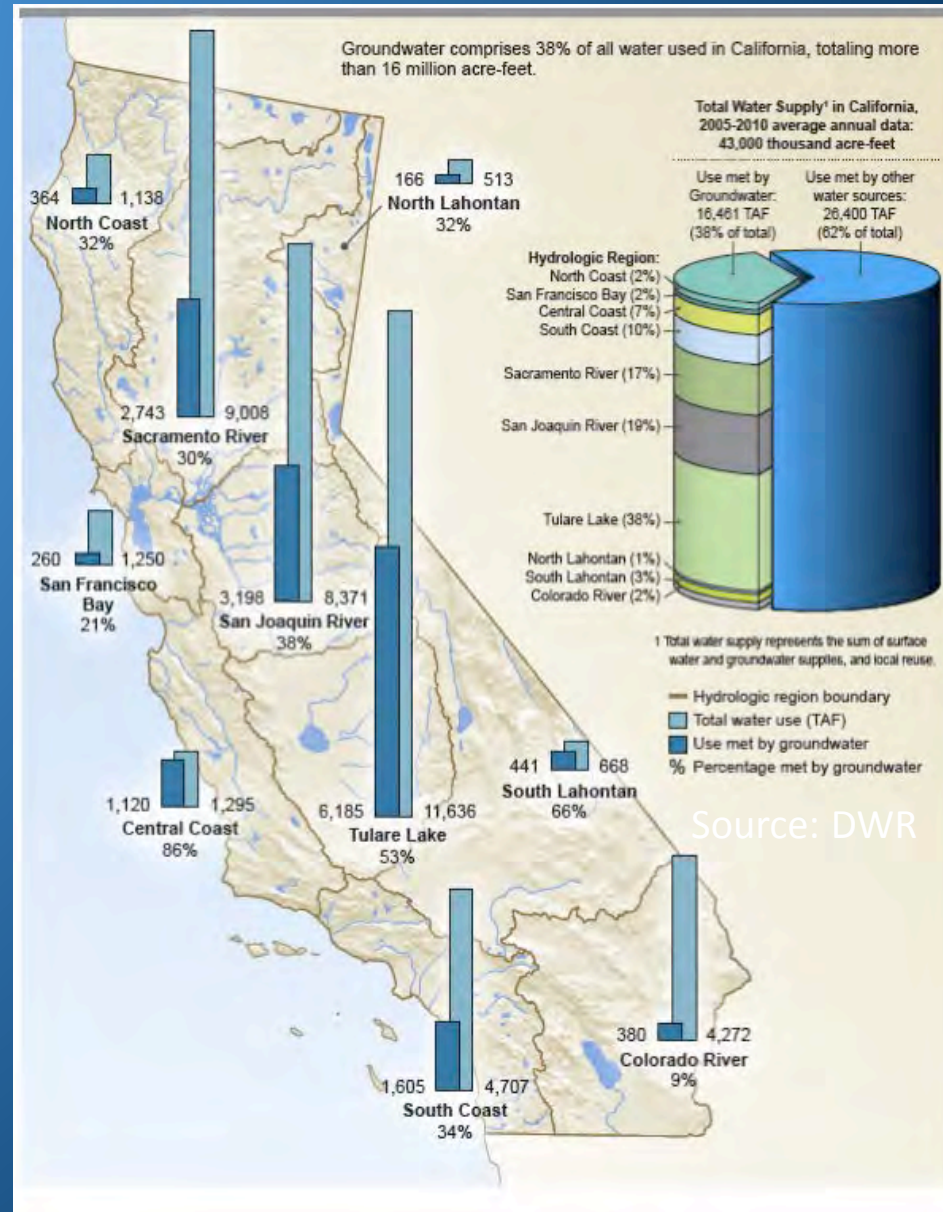


# PRESENTATION OVERVIEW

- *Background to Sustainable Groundwater Management Act (SGMA)*
- *SGMA planning process*
- *Groundwater management, then and now*
- *Groundwater Sustainability Plans*
- *State agency roles*

# GROUNDWATER IS ESSENTIAL TO CALIFORNIA

- *Groundwater ~ 38% of state's total average annual water supply—up to 60% in dry years*
- *Over 80% of Californians rely on groundwater for at least part of their drinking water*
- *Rural areas, many small urban areas, some large cities (e.g., Fresno) rely entirely on groundwater*



Groundwater Use Vs. Total Water Use

# SGMA: FRAMEWORK FOR SUSTAINABILITY

- *Requires sustainability of medium- and high-priority basins*
- *Identifies planning processes for water agencies and counties*
- *Lays out a schedule and milestones*
- *Defines elements of a Groundwater Sustainability Plan (GSP)*
- *Provides comprehensive tools and powers*
- *Emphasizes local control*
- *Entails State intervention only if locals do not act*





# WHAT IS SUSTAINABLE GROUNDWATER MANAGEMENT?



Management that can be maintained during planning and implementation without causing undesirable results.

- Chronic lowering of groundwater levels indicating significant and unreasonable depletion of supply
- Reductions in groundwater storage
- Seawater intrusion
- Degraded water quality
- Land subsidence
- Surface water depletions that have adverse impacts on beneficial uses

# STEPS TO SUSTAINABILITY

## Step one

Local agencies in high- or medium-priority basins must form local groundwater sustainability agencies (GSAs) within two years

## Step two

Agencies in high- or medium-priority basins must adopt groundwater sustainability plans (GSPs) within five to seven years, depending on whether in critical overdraft

## Step three

Once plans are in place, local agencies have 20 years to fully implement them and achieve the sustainability goal

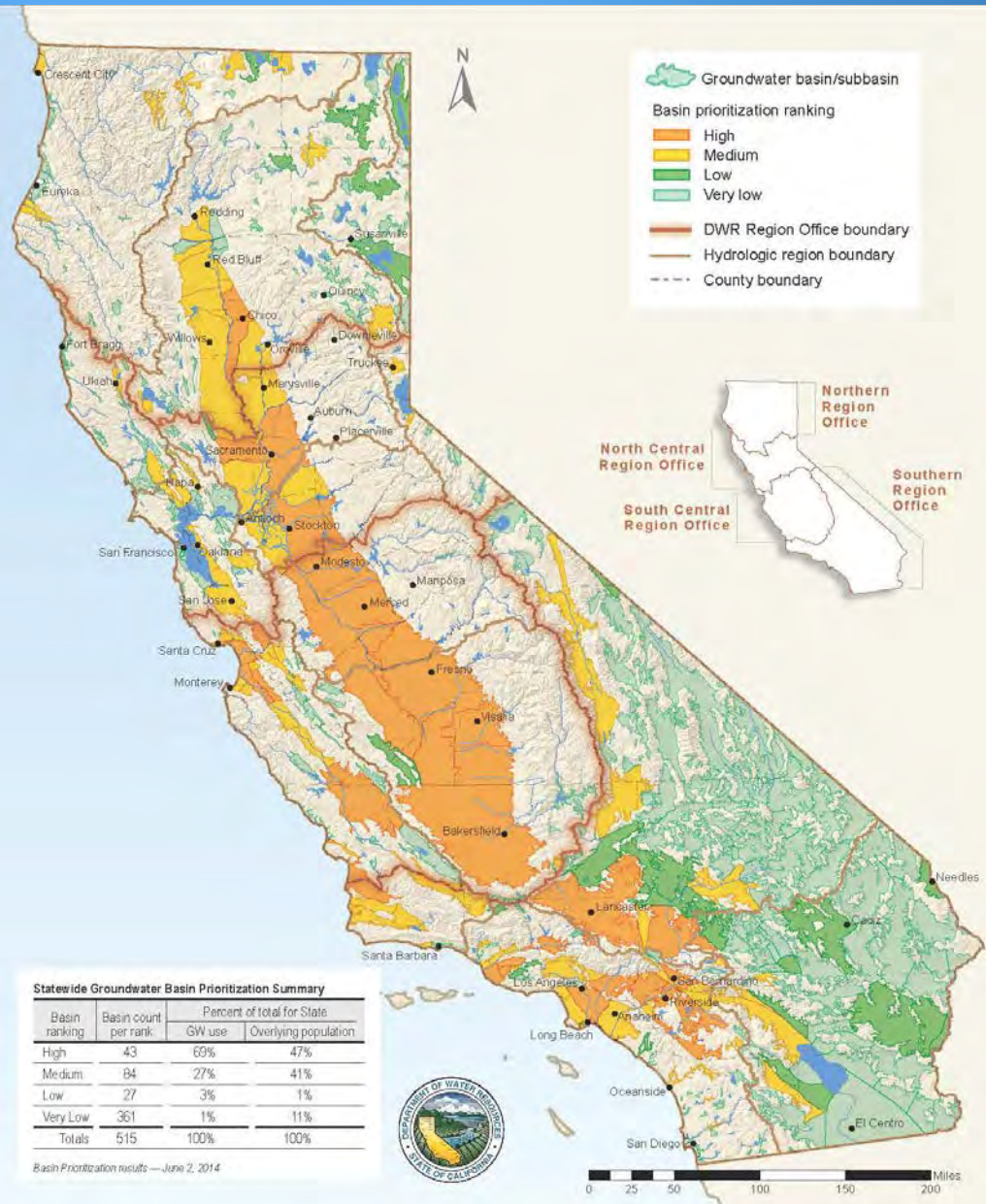
# KEY IMPLEMENTATION DATES

Time	Action
June 30, 2017	Formation of GSAs
Jan. 31, 2020	Completion of GSPs in critically overdrafted basins
Jan. 31, 2022	Completion of GSPs in all other basins
20 years after adoption of plan	High- and medium-priority basins achieve sustainability

DWR may grant up to two, five-year extensions on implementation upon showing of good cause and progress



# BASIN PRIORITIZATION

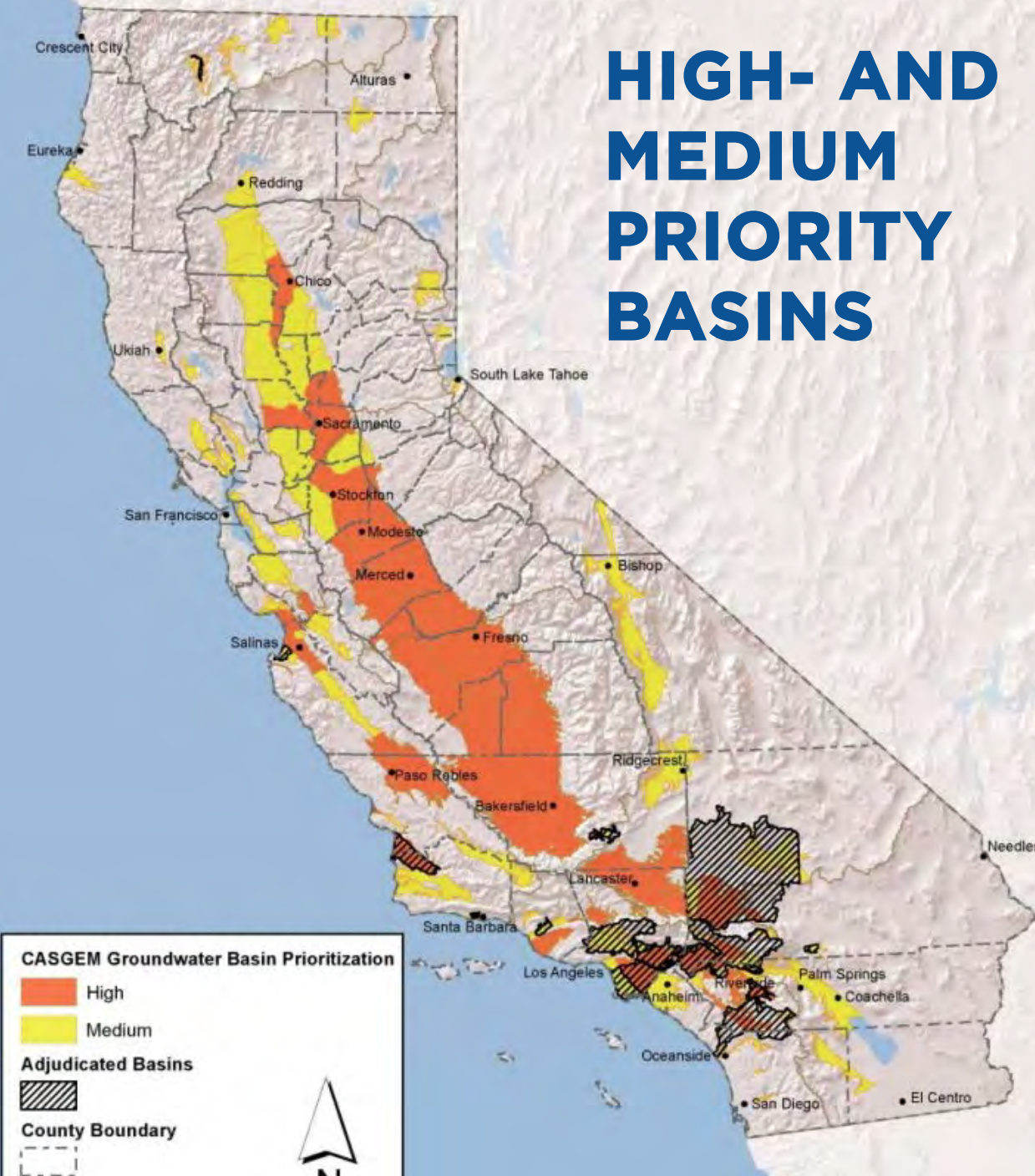


- *DWR Bulletin 118 basins*
- *Criteria include*
  - *population*
  - *population growth*
  - *public supply wells*
  - *total number of wells*
  - *irrigated agriculture*
  - *dependence on groundwater*
  - *documented impacts*



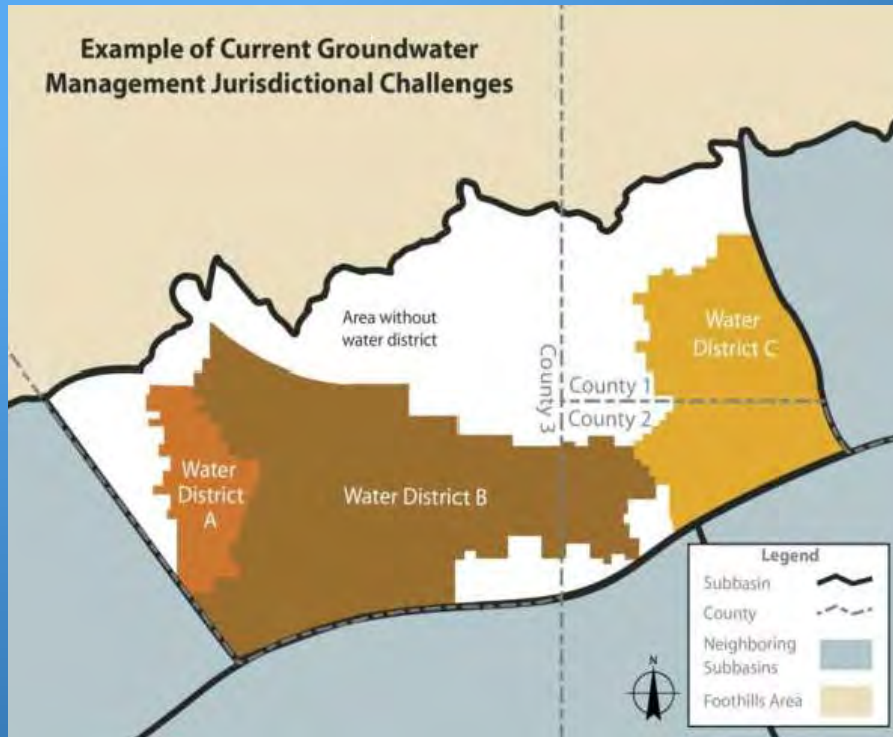
# HIGH- AND MEDIUM PRIORITY BASINS

- 125 basins are high- or medium-priority
- Adjudicated basins have reporting requirements
- Implementation is elective in low- and very low-priority basins
- Counties **without** any portion of high- and medium-priority basins:
  - Alpine
  - Marin
  - San Francisco
  - San Mateo
  - Trinity



# SGMA PLANNING PROCESS

## FORMING GROUNDWATER SUSTAINABILITY AGENCIES (BY JUNE 2017)



- Any local agency or combination of agencies overlying basin may elect to be a GSA
- Local agency is any public agency that does at least one of the following:
  - Water supply
  - Water management
  - Land use
- Counties are the default GSA in “potentially un-managed areas”
- Can be more than one GSA in basin, but plans must be coordinated

# THE PLANNING PROCESS IS A PUBLIC PROCESS

- *Public hearings and outreach required to designate GSA and adopt GSP*
- *SGMA encourages diversity*
- *GSA must consider interests of all beneficial uses and users of groundwater*
  - *holders of overlying groundwater rights*
  - *municipal and public water systems*
  - *ag and domestic users*
  - *tribes*
  - *planners*
  - *environmental users*
  - *disadvantaged communities*

Best to err on the side of  
inclusion and transparency





# WHAT IS GROUNDWATER MANAGEMENT?

*Some Things  
Haven't  
Changed*

*Existing Groundwater Management Plans  
under AB3030/SB1938*

- *Plans grounded in science-based understanding of basin hydrology; provide maps of basin & recharge areas*
- *Focus typically on recharge enhancement, monitoring, conservation and wellhead protection*
- *Include Basin Management Objectives (BMOs)*
- *Makes basin eligible for state water funds*



# SGMA GROUNDWATER MANAGEMENT

## *Still About Supply and Demand*

- *Groundwater supply can be increased through recharge or supplemented with surface water*
- *Conjunctive management with surface water supplies can increase groundwater sustainability*
- *Managing groundwater demand*
  - *Conservation and water efficiency*
  - *Land use planning and well construction policies informed by GSPs*
  - *Limiting groundwater use*

# SGMA GROUNDWATER MANAGEMENT

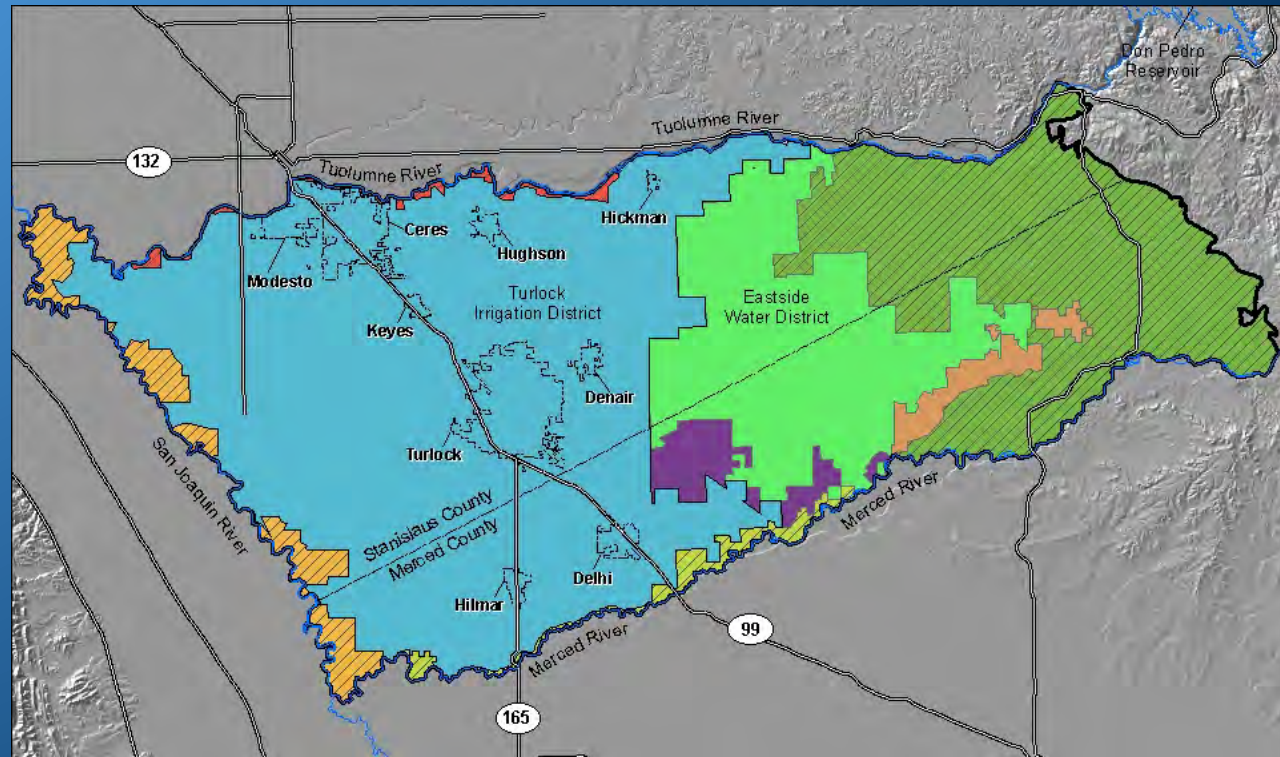
## *Many Things Have Changed*

- *Groundwater management no longer voluntary*
- *State will now review whether local plans achieve sustainability*
- *Plans must contain measurable objectives that will reach sustainability goal*
- *Local management agencies now have regulatory, enforcement and fee authority*
- *State intervention in basin management now possible*

# GROUNDWATER SUSTAINABILITY PLANS

## Options for local agencies

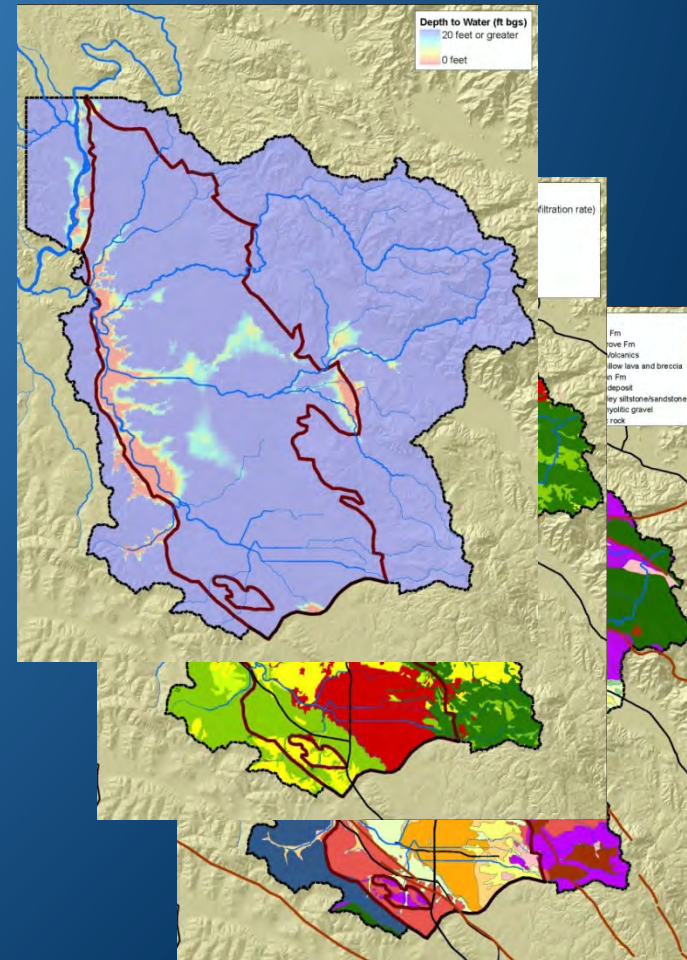
1. Create single GSP covering entire basin
  2. Coordinate on multiple GSPs created by several local agencies
- Multiple GSPs must be submitted jointly
  - Will be evaluated by DWR together
  - Need to document coordinated data, methods, assumptions
  - Need to coordinate for sustainability and avoid interference





# GSP REQUIREMENTS

- Physical description of basin: maps, data, analyses
  - Groundwater levels
  - Water quality
  - Subsidence
  - Groundwater-surface water interaction
- Documentation of historical/projected demands and supplies
- Measurable objectives + milestones to reach sustainability
- Monitoring program-sites and protocols
- Management components and implementation





# TOOLS AND POWERS

- Acquire and dispose of property of every kind including lands, water rights
- Construct, maintain, operate improvements
- Appropriate and acquire water rights
- Conduct recharge, recycling, and other programs
- Conduct investigations
- Adopt rules, regulations, ordinances, resolutions
- Administer fees and assessments
- Validate GSP

# TOOLS AND POWERS: REGULATE PUMPING

- Register production wells
- Impose spacing requirements on new wells
- Control groundwater extractions
- Require installation of meters
- Require annual reporting
- Monitor compliance and enforcement



# DEPARTMENT OF WATER RESOURCES ROLE



- *Provide technical assistance*
- *Designate and update basin priorities*
- *Review GSPs initially and periodically for compliance*
  - *Multiple plans within a basin must be evaluated collectively*
- *Evaluate whether one GSP adversely affects adjacent basin's ability to achieve sustainability goal*



# STATE WATER RESOURCES CONTROL BOARD ROLE



- *May intervene if GSA not formed*
- *May intervene if GSA fails to adopt and implement compliant GSP by certain dates*
- *Designate “probationary status” if deficiencies not addressed*
- *Create interim plan for basin until local GSA is able to assume responsibility*
- *Probationary status requires a GSA to respond to SWRCB and describe how it intends to rectify deficiencies*



# RESOURCES

- *Full version of SGMA statute, with hyperlinks*  
[http://www.opr.ca.gov/docs/2014\\_Sustainable\\_Groundwater\\_Management\\_Legislation\\_092914.pdf](http://www.opr.ca.gov/docs/2014_Sustainable_Groundwater_Management_Legislation_092914.pdf)
- *DWR Groundwater Information Center*  
<http://www.water.ca.gov/groundwater/>
- *ACWA's Groundwater Sustainability Page*  
<http://www.acwa.com/content/groundwater/groundwater-sustainability>
- *California Water Foundation Information / Recommendations on Groundwater Sustainability*  
[www.californiawaterfoundation.org](http://www.californiawaterfoundation.org)