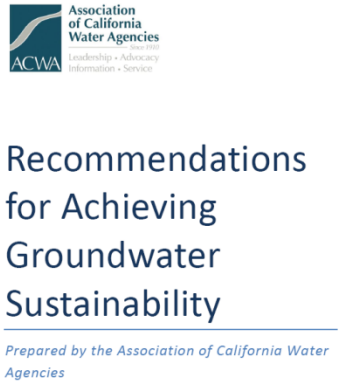
Groundwater Management Reports:

- Association of California Water Agencies
- California Water Foundation

Glenn County Water Advisory Committee
June 10, 2014

Association of California Water Agencies (ACWA)

- Recommendations for Achieving Groundwater Sustainability
- Released April 2014
- 11 policy objectives
- 8 Recommended Administrative and State Legislative Actions



Policy Objectives

- Enhance Local Management
- Establish Mandatory Minimum Groundwater Management Plan Requirements and Increased Authorities
- Avoid or Minimize Subsidence
- Assess Groundwater Connections to Surface Waters
- Improve Data Availability
- Increase Groundwater Storage
- Remove Impediments to Recharge
- Do No Harm
- Reassess Surface Water Reallocations
- Provide State Financial and Technical Assistance
- Provide a "Backstop"

Recommended Administrative and State Legislative Actions

- Adopt State Definition of "Sustainable Groundwater Management"
- Prioritize Unmanaged Basins or Subbasins
- Adopt Uniform Minimum Requirements for Groundwater Management Plans and Implementation
  - Planning Boundary
  - Plan Standards
  - Compliance Requirements
  - Sustainability Timeframe
  - Groundwater Extraction Prohibition
  - Technical Review and Approval
  - Performance Reporting
  - Performance Review

Recommended Administrative and State Legislative Actions

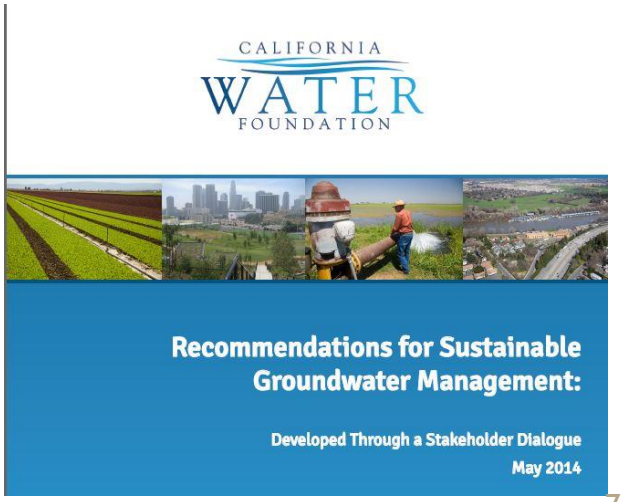
- Develop Best Management Practices
  - Illustrative Quantifiable Basin Management Objectives
  - Subbasin Boundary Adjustment
  - Groundwater Monitoring
  - Well Permitting
  - Groundwater Recharge
  - Sustainability Indicators
  - Overdraft Measures
  - Public Review Process
  - Governance Structures
  - Data Collection and Reporting
  - Demand Management

Recommended Administrative and State Legislative Actions

- Enhance Local and Regional Agency Authority
- Ensure Adequate Funding
- Provide for State Backstop Authority When Local Action Has Not Occurred or Has Been Insufficient
- Remove Impediments to Water Supply Reliability

California Water Foundation (CWF)

- Recommendations for Sustainable Groundwater Management: Developed Through a Stakeholder Dialogue
- Released May 2014
- 12 Key Findings
- 7 Recommendations
- In response to California Water Action Plan and Request from Governor Brown



Key Findings

- Groundwater is essential to California's economy, environment, and public health and safety
- Current groundwater trends are not sustainable
- Integrated water management is necessary
- Groundwater is most effectively managed at the local and regional level
- Local groundwater management entities (LGMEs) require better tools
- Protection of private property and water rights is imperative

Key Findings

- Clear and meaningful state roles are needed to protect state interests in groundwater management
- Groundwater is an important source of drinking water
- Time is an important factor
- Funding is needed to support sustainable groundwater management
- Access to information is important for management and citizen understanding
- Comprehensive legislation is necessary

Recommendations

- Adopt a definition of "sustainable groundwater management"
- Develop a statewide program that established a system of prioritization for all subbasins
- Establish local groundwater management entities (LGMEs)
- Provide LGMEs with tools and authorities to achieve sustainability
- Require LGMEs to develop management plans with benchmarks and milestones
- Establish a clear and coordinated state role for assistance, oversight, and enforcement
- Provide funding for groundwater management

Many Similarities

- Define sustainable groundwater management
- Local management, state backstop
- Groundwater management plan updates
- Technical Assistance
- Funding
- Prioritize subbasins
- Avoid or Minimize Subsidence

Definition of Sustainable Groundwater Management

ACWA

"Sustainable groundwater management" is the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing unacceptable related environmental, economic or social consequences through the development, implementation and updating of plans and programs based on the best available science, monitoring, forecasting and use of technological resources."

CWF

"Sustainable groundwater management means the management of a groundwater subbasin to provide for multiple long-term benefits without resulting in or aggravating conditions that cause significant economic, social, or environmental impacts such as long-term overdraft, land subsidence, ecosystem degradation, depletions from surface water bodies, and water quality degradation, in order to protect the resource for present and future generations."

Local Management

ACWA

- Local management through local or regionally developed Groundwater Management Plan
- If a plan is currently successful, other requirements should not impose additional undue burdens or mandates in those areas
- Enhance local/regional agency authorities
- State Backstop where local agencies are unwilling or unable to sustainably manage groundwater resources. SWRCB should intervene only as a last resort, for a limited duration, restore local control as soon as possible

CWF

- Local Groundwater Management Entities (LGME) -approved by state
- Flexible governance structure
- After state approval, access to tools and authorities
- Accountable to meet goal of sustainable groundwater management
- Formed within 2 years of legislation's effective date
- State backstop

CWF-LGME Authorities

- Measuring and reporting on groundwater conditions
- Allocating groundwater and managing pumping
- Assessing fees
- Allowing and approving voluntary groundwater transfers within subbasin jurisdiction
- Enforcement
- Land use planning remains under jurisdiction of cities/counties, but greater coordination is necessary

ACWA- Authorities

- Ability to impose groundwater management fees or assessments
- Groundwater allocation and extraction limits
- Well permitting updates
- New "Summary Proceeding" enforcement capability
- Water availability determinations
- GMP consistency determinations
- Expedited LAFCO formation assistance

Groundwater Management Plans (GMPs)

ACWA

- For all basins or subbasins (except adjudicated basins/subbasins)
- Establish mandatory minimum requirements- SB 1938 compliant
- GMP in basins/subbasins should be reviewed and updated by local groundwater management agencies
- Compliance requirements-High or medium, updated/adopted within 5 years; Low, not required but encouraged/supported
- Sustainability timeframe- within 20 years, but contain planning and implementation of at least 50 years (some wiggle room)

CWF

- LGMEs required to develop sustainable GMPs in each subbasin
- Minimum requirements, many beyond SB 1938 plans
- Technical/financial assistance should be provided by DWR (initially prioritized by basin priority)
- Performance dates-GMP publish 4-5 years after legislation, progress reports every 5 years, achievement of sustainable groundwater management objectives within 20 years from plan adoption. Low priority, slightly longer timeframe

SB 1938 Requirements

- Basin Management Objectives
- Agency Cooperation
- Map
- Recharge Areas
- Monitoring Protocols
- GWMPs Outside Groundwater Basin

SB 1938 Voluntary Components

- Saline Intrusion
- Wellhead Protection & Recharge
- Groundwater Contamination
- Well Abandonment & Destruction
- Overdraft
- Groundwater Extraction & Replenishment
- Monitoring
- Conjunctive Use Operations
- Well Construction Policies
- Construction and Operation
- Regulatory Agencies
- Land Use
- GMP Guidance
- Management Area
- BMOs, Goals, & Actions
- Monitoring Plan Description
- IRWM Planning
- GMP Implementation
- GMP Evaluation
- GMP Adoption

GMP Minimum Requirements

ACWA

- Plan standards- SB 1938 or equivalent
- Planning boundary- DWR Bulletin 118
- Groundwater extraction Prohibition- Unless a GMP exists, no new development in high or medium priority basins (does not apply to single family domestic wells)
- Contain BMPs and implementation schedule

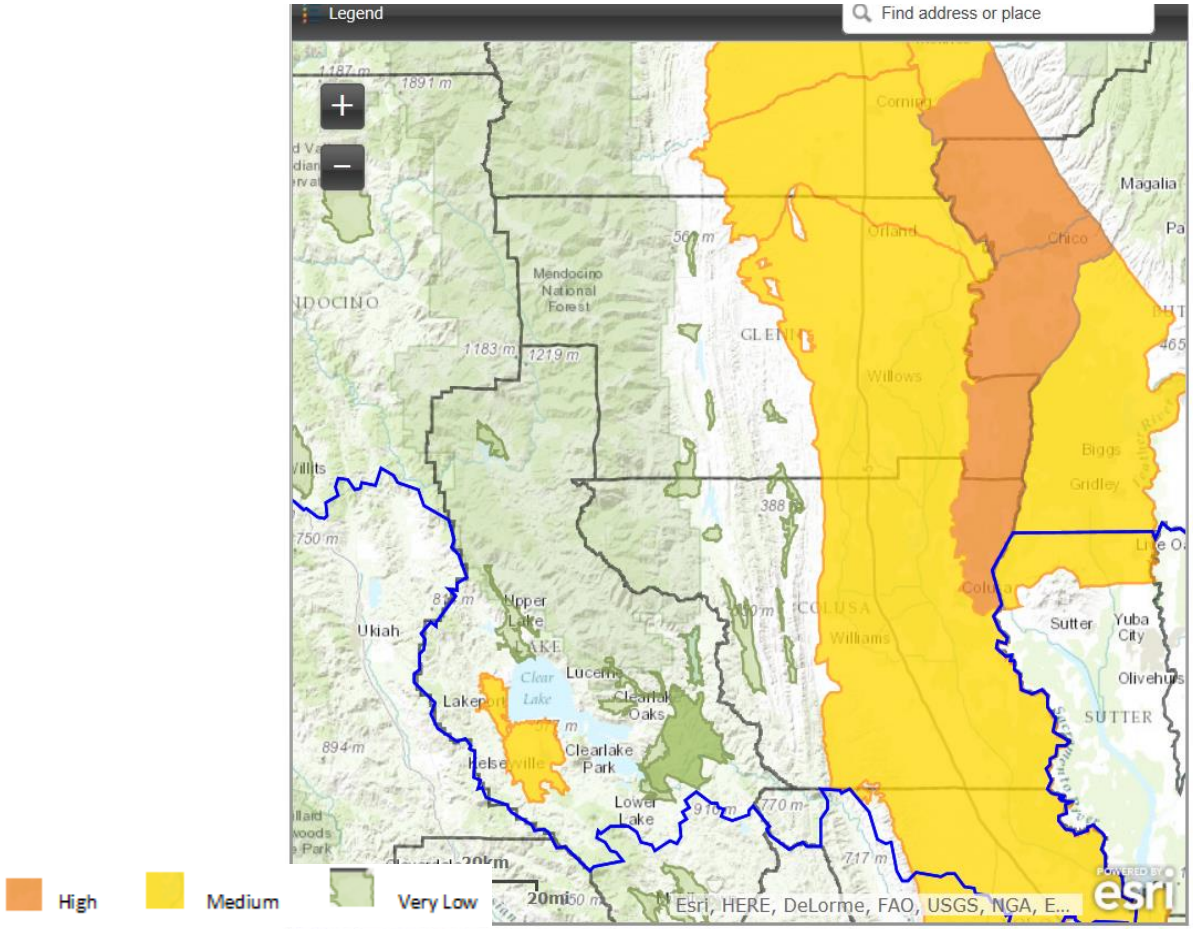
CWF

- All SB 1938 components
- Geographic boundaries
- ID interactions between subbasins for coordination
- Water budget, model, water supply, and demand forecast
- Plan for long term sustainability addressing long term overdraft, water quality, subsidence, surface water flows, groundwater dependent ecosystems
- Interim milestones, final targets, measurable thresholds for each objective

DWR Groundwater Basins-
Bulletin 118/CASGEM Basin Prioritization

Draft CASGEM Northern Region Groundwater Basin Priorities

The map below contains the draft CASGEM basin prioritization results for DWR's Northern Region. Click on the basin of interest and an informational window will open. Click on the link at the bottom of the window to access the basin summary sheets. If you have questions please contact the **Northern Region Office**.



GMP Minimum Requirements

ACWA

- Technical review and approval- by DWR within 6 month, if inadequate, revisions due within 6 months. Continual inadequacy, SWRCB intervention and impose as necessary
- Performance reporting- Submitted annually to DWR, monitoring data updated regularly through CASGEM and local stakeholders (web-based)
- Performance review- High and medium priority, reviewed by SWRCB periodically (5 years)

CWF

- Description of water management strategies including integrated approach that includes surface water, conservation, reuse, and other water management strategies
- Other components that may be required for sustainable groundwater management, including those listed in WC §10753.8

Water Code §10753.8

A groundwater management plan may include components relating to all of the following:

(a) The control of saline water intrusion.

(b) Identification and management of wellhead protection areas and recharge areas.

(c) Regulation of the migration of contaminated groundwater.

(d) The administration of a well abandonment and well destruction program.

(e) Mitigation of conditions of overdraft.

(f) Replenishment of groundwater extracted by water producers.

(g) Monitoring of groundwater levels and storage.

(h) Facilitating conjunctive use operations.

(i) Identification of well construction policies.

(j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.

(k) The development of relationships with state and federal regulatory agencies.

(l) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.

Technical Assistance

ACWA

- The State through DWR should provide technical support.
- Unmanaged areas should be 1st priority
- DWR develop BMP guidebook- includes many elements

CWF

- DWR-primary responsibility to provide technical information to LGMEs
- Prioritized initially (high priority basins 1st)
- Develop BMP list
- Include gathering/ analyzing data, developing/ implementing GMPs, monitoring, measuring progress/ milestones, inter-basin coordination, subbasin characterization, water budgets, modeling, monitoring
- Statewide data management including compilation/ assessment of GMPs, subsidence monitoring/ assessment program (in coordination with U.S.G.S.)

Oversight & Enforcement

ACWA

- DWR provide technical review, conditional approval, adequacy/ inadequacy
- Performance reports submitted to DWR annually
- Subject to review by SWRCB periodically (every 5 years)
- SWRCB intervene in areas with continual inadequacy. Impose an adequate GMP after public hearing
- SWRCB enforcing agency-multiple options in areas of non-compliance
- Can impose fees in the area to cover costs of SWRCB administration and 3rd party contractor work, collected by local agency as a "property-related fee"
- Return management to local agency as soon as practicable

CWF

- LGME submit notifications (LGME formation, GMP development/ adoption, progress every 5 years, achievements/ final objectives
- DWR review and analyze LGME reports, prepare summary for SWRCB
- DWR coordinate with SWRCB regarding need and nature of enforcement actions
- SWRCB coordinate with DWR to establish standards/ procedures for evaluation
- SWRCB authority to enforce compliance
- DWR and SWRCB coordinate and share information

Funding

ACWA

- The state through DWR provide significant new financial assistance
- SWRCB and DWR-coordinate available funding/resources from Governor's proposed budget to ID basins/subbasins lacking coverage
- Revise/implement GMP- money should come from local/regional fees or assessments
- Grants or loans also possible from existing programs
- Additional potential funding source- water bond
- Opposes statewide water user fee "public goods charge"

CWF

- State develop multi-source funding strategy in support of state and local activities
- Should also account for challenges to funding local management including Proposition 218
- New local and state taxes, local fee authority
- 2014 water bond (potentially)

Prioritize Subbasins

ACWA

- ID basins not currently being managed
- Designate priority based on DWR's CASGEM basin prioritization study (2013)

CWF

- Statewide program for all subbasins
- Prioritized based on DWR's CASGEM basin prioritization (December 2013 draft)
- Bulletin 118 is appropriate boundary for groundwater management

Subsidence

ACWA

- Minimize/avoid subsidence through Local GMP (including increased land use planning, pumping restrictions, etc.)

CWF

- Subsidence monitoring included under technical assistance from statewide data management

Links to reports

ACWA

http://www.acwa.com/sites/default/files/post/groundwater/2014/04/final_acwa-groundwater-sustainability-recommendations.pdf

CWF

http://www.californiawaterfoundation.org/uploads/1399077265-GroundwaterReport-5-2014(00249329xA1C15).pdf

More Recent Developments

Governor's Office of Planning and Research

Draft Groundwater Management Language (5/22/14) and many supporting links

http://www.opr.ca.gov/s_groundwater.php