

**LEGISLATIVE AND POLICY UPDATE**  
**Tim Parker, Technical Consultant to SVGMP**  
**April 23, 2015**

- 1. Reminder: Water Recycling Funding Program/Water Bond Programs by the State Water Resources Control Board**  
The State Water Board, Division of Financial Assistance is hosting public workshops on the Proposition 1 Water Recycling Funding Program (WRFP) April 14<sup>th</sup> in Fresno, 16<sup>th</sup> in Perris and 21<sup>st</sup> in Sacramento. Prop. 1, the Water Bond, allocates \$725 million in funding for recycled water and desalination projects (see next page for details).  
[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/water\\_recycling/proposition1\\_funding.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/water_recycling/proposition1_funding.shtml)
- 2. California Department of Water Resources will be hosting 'Listening Sessions' for the development of the basin/subbasin boundary changes for Groundwater Sustainability Agency Formation.**  
The specific times and locations of the public workshops are April 28<sup>th</sup> in Willows, April 29<sup>th</sup> in Visalia, April 30<sup>th</sup> in San Bernardino, with a May 1<sup>st</sup> webinar. For more info:  
<http://water.ca.gov/groundwater/sgm/listening.cfm>
- 3. The State Water Board expects to consider on May 5 an emergency water conservation regulations** that require a mandatory 25 percent reduction in urban water use statewide beginning the month following Board adoption. That regulation will use a sliding scale, so that communities that have been conserving water will have lower mandates than those that haven't conserved this past year and/or over the last decade since the last major drought. More information about the impending conservation regulations can be found at the [Emergency Water Conservation Regulations Portal](#) at  
[http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/emergency\\_regulations\\_waterconservation.shtml](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/emergency_regulations_waterconservation.shtml)
- 4. Energy Commission Approves Water Appliance Standards:** The energy efficiency and water standards approved on April 8 require water appliances to consume less water thereby using less energy while performing the same function. The California Energy Commission estimates the regulations will save more than 10 billion gallons of water in the first year. More info at:  
[http://www.energy.ca.gov/releases/2015\\_releases/2015-04-08\\_water\\_appliance\\_standards\\_nr.html](http://www.energy.ca.gov/releases/2015_releases/2015-04-08_water_appliance_standards_nr.html)
- 5. The California Water Commission is holding Proposition 1 Public Meetings:** three public meetings in April (13<sup>th</sup> Chico, 15<sup>th</sup> Fresno and 21<sup>st</sup> Pleasant Hill) to provide an opportunity for stakeholders and the public to learn about the California Water Commission's Water Storage Investment Program. More info at:  
[https://cwc.ca.gov/Documents/2015/PublicMeetings\\_SaveTheDate.pdf](https://cwc.ca.gov/Documents/2015/PublicMeetings_SaveTheDate.pdf)
- 6. IRWM Draft Program Guidelines:** The Department of Water Resources has scheduled two public meetings, April 17<sup>th</sup> in Sacramento and April 22<sup>nd</sup> in Chino to solicit comments on the Draft 2015 Integrated Regional Water Management Grant Program Guidelines and Proposal Solicitation Package; that solicitation is designed to award all remaining Proposition 84 IRWM grant funds. More info at:  
<http://www.water.ca.gov/irwm/grants/p84implementation.cfm>
- 7. Environmental Enhancement and Mitigation Grant Program for 2014/2015:**  
Applications are currently being accepted for the Environmental Enhancement and Mitigation (EEM) Program 2014/15 grant cycle. The program offers grants to local, state and federal governmental agencies and nonprofit organizations for projects to mitigate environmental impacts caused by new or modified state transportation

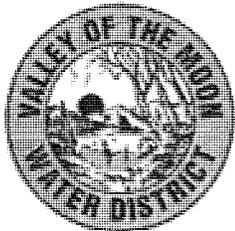
facilities. The EEM Program encourages projects that produce multiple benefits which reduce greenhouse gas emissions, increase water use efficiency, reduce risks from climate change impacts, and demonstrate collaboration with local, state and community entities. Grants are generally limited to \$500,000 for development projects and up to \$1,000,000 for acquisitions. Applications for the 2014/15 grant cycle must be postmarked by July 13, 2015. Program guidelines and application can be found at [http://resources.ca.gov/bonds\\_and\\_grants/eemp/](http://resources.ca.gov/bonds_and_grants/eemp/).

- 8. Governor Brown Signs \$1 Billion Emergency Drought Package:** On March 27, Gov. Jerry Brown signed an emergency legislative package that speeds up the disbursement of more than \$1 billion in funding for drought relief and critical water infrastructure projects. The emergency legislation also accelerates emergency food aid, drinking water, water recycling, water conservation, water system modeling, species tracking, infrastructure and flood protection funding. <http://www.ca.gov/drought/topstory/top-story-28.html>
- 9. Governor Brown Directs First Ever Statewide Mandatory Water Reductions:** On April 1, Governor Brown issued an Executive Order to save water, increase enforcement to prevent wasteful water use, streamline the state's drought response and invest in new technologies to make California more drought resilient. Governor Brown unveiled the actions at the April 1 announcement of the state's lowest snowpack on record. Updates on the Executive Order's implementation can be found at [www.drought.ca.gov](http://www.drought.ca.gov).
- 10. Continued Dry Conditions Force Bureau to Adhere to Low Initial Allocation Estimate:** On March 27, the U.S. Bureau of Reclamation announced that California's continuing dry conditions have forced the Bureau to adhere to its initial water supply allocation of zero percent for its junior water contractors, since limited water supplies have meant that the Bureau cannot provide full water allocations to its senior water contractors. As the water year progresses, the Bureau will continue to monitor changes to hydrology and opportunities to exercise operational flexibility of the Central Valley Project that could change the allocation.
- 11. Sustainable Groundwater Management Act Workshops and Webcasts**

The California Groundwater Resources Association is planning a number of events on the implementation of the SGMA over the coming months. [www.grac.org](http://www.grac.org)

  - GRA Webcasts (GRACasts)
    - April 15 - Legal Agreements for GSAs
    - May 13 - Public Participation in GSAs and GSPs
  - GRA 1 Day Events
    - April 29 - Annual Legislative Symposium
    - June 2 - GSA Formation, Boundary Designation, and Public Participation
    - Sept (early) - Groundwater Sustainability Plans - Sustainable Yield, Monitoring, Metric Objectives & Milestones, Management Portfolios, Fifty Year Planning
- 12. 2015-2015 Legislative Session - Bills Introduced**

There have been twenty-six groundwater-related bills introduced in the new legislative session. Some of the bills are related to ministerial fixes to the Sustainable Groundwater Management Act, some are focused on making groundwater recharge a beneficial use, some are focused on streamlined adjudication, others on graywater recharge, water quality, state funds for studies, and there are several 'spot bills' where the language and intent has yet to be developed. The attached table lists the bills and provides brief narrative descriptions. Bills are starting to go through the process of change and possible death as they work their way through the Legislative Committees.



**Valley of the Moon Water District**  
**PO Box 280, 19039 Bay Street, El Verano, CA 95433**

**NOTICE OF PUBLIC HEARING REGARDING GROUNDWATER IN  
SONOMA VALLEY AND FUTURE FORMATION OF A GROUNDWATER  
SUSTAINABILITY AGENCY**

**Date, Time, and Place of Public Hearing**

On May 5, 2015, at 6:45 PM, or as soon thereafter as the matter may be heard, in the Board Meeting Room, 19039 Bay Street, El Verano, California, the Board of Directors (Board) of the Valley of the Moon Water District (District) will conduct a public hearing regarding groundwater in Sonoma Valley and future formation of a Groundwater Sustainability Agency.

**What is the Purpose of the Public Hearing**

VOMWD wants to hear from you regarding recent groundwater legislation that was passed in the Fall of 2014. The new laws, referred to as the Sustainable Groundwater Management Act, now requires all groundwater basins designated as high or medium priority basins (Sonoma Valley is medium priority) to be managed under a groundwater sustainability plan or coordinated groundwater sustainability plans.

Additionally, the State law requires the development of one or more Groundwater Sustainability Agencies (GSAs) within the groundwater basin by June 30, 2017. In the Sonoma Valley eligible local public agencies that may form a single or multiple GSAs are: Valley of the Moon Water District, City of Sonoma, Sonoma County Water Agency and/or County of Sonoma. If no local agency wants to manage groundwater the County of Sonoma becomes the GSA by default unless the County opts out then the State Water Resource Control Board is the backstop.

**Who Should Attend the Public Hearing**

The Sustainable Groundwater Management Act states, "The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans." In the Sonoma Valley this includes but is not limited to: agricultural users, domestic/rural residential well owners, municipal wells, public water systems, local land use planning agencies, environmental uses, California Native American Tribes, disadvantaged communities, etc.

**Deadline for Comments**

Either prior to or at the public hearing, public may submit written comments regarding groundwater in Sonoma Valley and the future formation of a Groundwater Sustainability Agency. At the public hearing, the Board will consider all written comments which have been received. All written comments must be received no later than the following deadlines: If submitted by mail (mailing address: Valley of the Moon Water District, PO Box 280, El Verano, CA 95433), they must be received (NOT postmarked) no later than Tuesday, May 5, 2015, at the District office. If hand delivered, they must be delivered no later than the close of the public hearing on May 5, 2015, to the Board Secretary.

**Additional Information**

For complete information regarding the Sustainable Groundwater Management Act visit:  
[www.vomwd.com/groundwater.php](http://www.vomwd.com/groundwater.php)

# Concept for Community-based Outreach

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## Desired Outcomes

1. Raise awareness about declining groundwater levels among owners/residents in affected areas, including how individual actions and practices can help or impede groundwater sustainability.
2. Engage TAC and BAP members in practical, results-oriented initiatives to improve groundwater conditions.
3. Engage owners/residents to stimulate discussion about groundwater conditions and use in their area, leading to development and implementation of community-driven strategies that will help reverse trend in groundwater elevation decline.
4. Educate stakeholders about new requirements under the Sustainable Groundwater Management Act.
5. Raise the visibility of the BAP and the adopted Groundwater Management Plan in a way that reinforces the community-based nature of this effort and builds support for future.

## Approach

A subcommittee of BAP and TAC members will be formed to kick off this initiative. The goal will be to have a program up and running within 90 days. Subcommittee members would be responsible for organizing their efforts, including internal and external communication, and working with stakeholders to develop a draft program for review by the full TAC and BAP.

While the subcommittee will initiate and guide this project, success will depend on the extent to which community and neighborhood stakeholders take ownership of this effort. Ideally, the project will become self-sustaining at the neighborhood level with limited ongoing involvement from the subcommittee.

The project will focus on one of the Sonoma Valley areas that is experiencing persistent groundwater declines. Ideally, the project area will contain a variety of land uses (residential and agricultural) and tenancies (i.e., owners, residents and lessees). This will help ensure that the project is scalable and adaptable to other areas as needed.

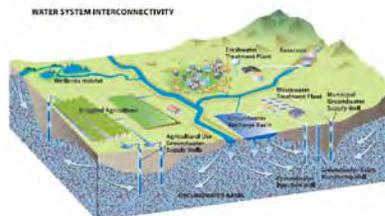
This initiative is intended to be a community-supported, low-cost approach. While the Water Agency does not have funds budgeted for this program, technical and other assistance will be available.

## Roles and Resources

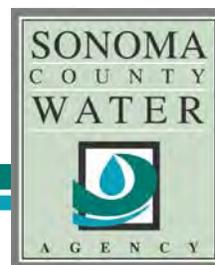
*Water Agency:* Provide maps and other technical information about areas experiencing groundwater decline. Provide technical guidance as requested by the Subcommittee, including meeting with resident groups, etc. Review draft program and outreach materials prior to public distribution. Assist in preparation and production of outreach materials. Provide examples of public outreach materials already developed.

*Subcommittee members:* Work with stakeholders to develop and start implementation of a program to achieve the desired outcomes, starting with engagement of owners/residents in affected areas. Provide regular progress reports to the TAC and consult with Water Agency staff as needed. Present program recommendations to the full BAP at its July meeting. Following BAP approval, subcommittee members will monitor and guide initial implementation (relying on community or neighborhood level partners) and report progress regularly to the TAC and BAP.

## Sustainable Groundwater Management Act: Implementing in Sonoma County



Marcus Trotta, PG, CHg  
 Tim Parker, PG, CEG, CHg - Parker Groundwater  
 Sonoma Valley Basin Advisory Panel  
 April 23, 2015



[www.sonomacountywater.org](http://www.sonomacountywater.org)

### 2014 Sustainable Groundwater Management Act

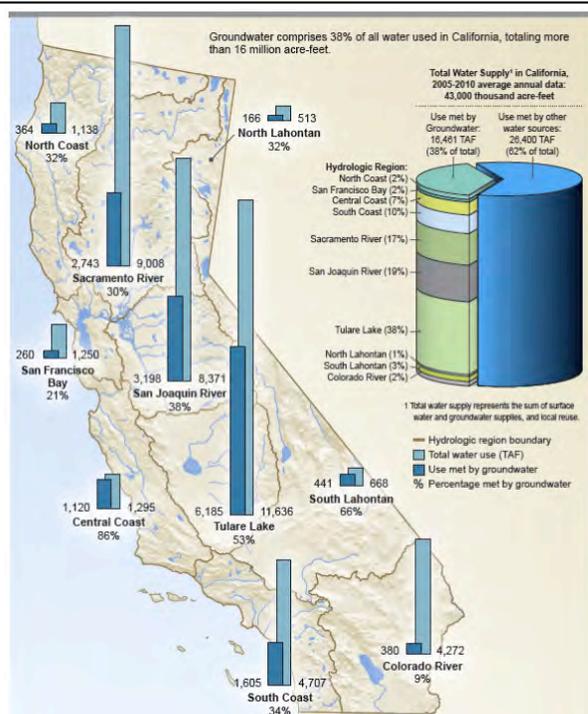
- Signed by Governor September 16, 2014
- Took effect January 1, 2015
- Recognizes preference for management by local agencies
  - Provides additional authorities to local management agencies
- Provides for State as backstop to regulate unmanaged or poorly managed basins

# Groundwater Is Essential to California

38% of state's average annual water supply

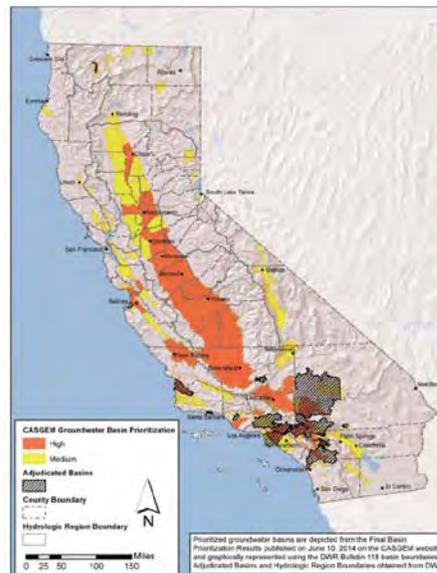
Up to 60% of water supply in dry years

Drinking water for more than 80% of Californians



## High and Medium Priority Basins

- Initial prioritization by DWR in January 2015 (based on June 2014 CASGEM prioritization)
- Criteria: Population, irrigated agriculture using groundwater, etc.
- 125 of 515 basins statewide are medium/high
- SGMA is elective for low priority basins



## SGMA in Sonoma County

### Three medium priority basins:

- Sonoma Valley
- Santa Rosa
- Petaluma Valley

Possibly other basins when DWR re-prioritizes



## SGMA Steps to Groundwater Sustainability

**Step one**  
Form  
Groundwater  
Sustainability  
Agency  
June 30, 2017

**Step two**  
Develop  
Groundwater  
Sustainability  
Plan  
January 31, 2022  
(for medium  
priority basins)

**Step three**  
Achieve  
Sustainability  
20 years after  
adoption of  
plan\*

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

## Groundwater Sustainability Agencies: Who?

- Local agency or combination of local agencies
- “Local agency” is any public agency that does one of the following:
  - Supplies water
  - Manages water
  - Controls land use
- Counties are the default GSA in “unmanaged” areas
- Can be more than one GSA in basin

## Robust Public Process

GSA must consider “all interests of all beneficial uses and users of groundwater” including:

- Agriculture
- Domestic users
- Public & private water systems
- Tribes
- Environmental users
- Disadvantaged communities
- Others



## What Is Sustainable Management?

“Management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing *undesirable results*.”

SGMA defines *undesirable results* as one or more of the following occurring in a **significant and unreasonable** manner:

- Chronic lowering of groundwater levels indicating depletion of supply
- Reductions in groundwater storage
- Seawater intrusion
- Degraded water quality
- Land subsidence
- Surface water depletions that adversely impact beneficial uses

## New Groundwater Sustainability Plans

Plan Requirements:

- 50-year planning horizon
- 20 years to reach sustainability
- Physical description of basin
- Measurable objectives
- Interim milestones
- Monitoring & management
- Plan exempt from CEQA



## New Management Authorities Under SGMA

Groundwater Sustainability Agencies have *discretionary* authority to:

- Conduct studies
- Register & monitor wells
- Set well spacing requirements
- Require extraction reporting
- Regulate extractions
- Implement capital projects
- Assess fees to cover costs

Some exemptions for smaller private well owners (2 AF)



## The Land Use Planning Connection *Statutory Requirements*

<b>GSA's MUST:</b>	<b>LAND-USE AGENCIES DIRECTED TO:</b>	<b>GSA's CANNOT:</b>
Notify cities, county of hearings to adopt Groundwater Sustainability Plan	Notify GSAs of any proposal to substantially amend a general plan	Supersede land use authority of cities & counties
Take into account local general plan assumptions	Review & consider any adopted Groundwater Sustainability Plan when amending the general plan	
Be consistent with general plans if adopting any regulations on groundwater extraction that affects sustainability		

## Department of Water Resources Role



- Initial designation of basins as high, medium, low or very low priority completed in January 2015
  - Revisit prioritization after 2016
- Develop rules and regulations for basin boundary revisions
- Regulations for evaluating GSPs and coordination agreements by June 2016
- Provide technical assistance
- Review GSPs initially and periodically for compliance with Act
  - Multiple plans within a basin must be evaluated collectively
- Evaluate whether one GSP adversely affects adjacent basin's ability to achieve sustainability goal

## “Backstop” Role of State Water Resources Control Board

- May intervene if GSA not formed or fails to adopt and implement compliant plan
- Designate “probationary status” if deficiencies not addressed
  - Create interim plan for basin until local GSA can assume responsibility
  - Probationary status requires a GSA to respond to SWRCB and describe how it intends to rectify deficiencies
- Can develop plan, curtail pumping and set surface water rights



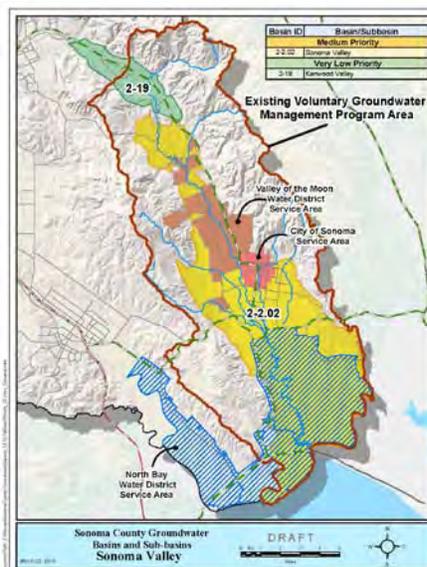
## Other Key Points

- Legislative intent to “respect overlying and other proprietary rights to groundwater”
- Act does not change existing surface water rights or groundwater rights
- Water Bond includes \$100 million for groundwater sustainability



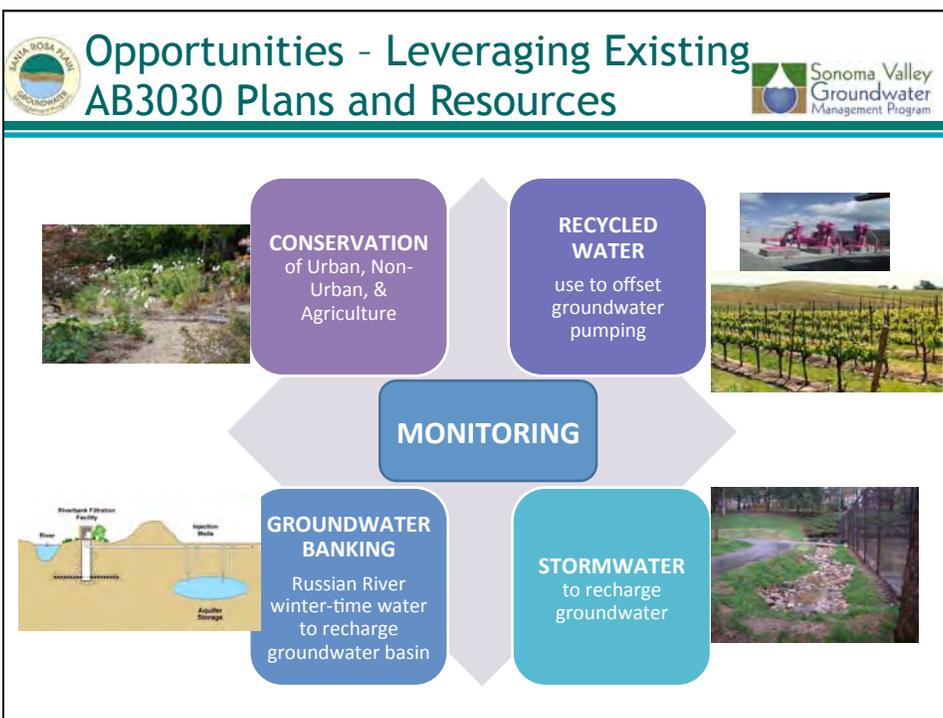
## Groundwater Management Under SGMA *Many Things Will Change*

- No longer voluntary
- Measurable objectives that will achieve sustainability
- New authorities granted to Groundwater Sustainability Agencies (GSAs)
- State review of local Groundwater Sustainability Plans (GSPs)
- State intervention now possible
- Boundary issues



## SGMA in Sonoma County: Challenges

- Will collaboration under existing groundwater management plans continue?
- Will local agencies work together?
- How will basin boundary issues be resolved?
- How will tension between resource protection, competing water demands & water rights be resolved?
- How will impacts to surface water from groundwater pumping be addressed?
- How will GSA formation and initial activities be funded?
- How will interested parties including rural well owners, agriculture & environmental users be represented?



## SGMA in Sonoma County: Workgroup Activities

- Fall 2014: Formation of County-Water Agency workgroup
- Ongoing stakeholder outreach to provide information & seek input
- Participate in statewide SGMA activities
  - Cleanup legislation & new legislative initiatives
  - Conferences & workshops
  - Funding discussions
  - DWR, CSAC, & ACWA advisory panels
- Draft general principles for developing GSA governance options
- Evaluate implications of SGMA to Sonoma County
  - Recommend initial steps to develop GSA governance options

## General Principles for Developing GSA Governance Options



- Local agencies work together to identify a unified and equitable approach to governance
- Management decisions are made at the local level
- Find opportunities for sharing resources and expertise across basins
- Build upon existing successful water management efforts
- Involve community stakeholders
- Provide a robust and transparent outreach program

## SGMA in Sonoma County: Possible GSA Governance Options

### **Disaggregated: Separate basin-specific GSAs**

- Most direct, simplest form of representation
- Possible funding competition between basins
- Less efficient administration & regional issues

### **Centralized: One county-wide GSA**

- Coordinate regional issues (e.g., land use, well permitting, data)
- Maximize administration efficiencies, reduce competition among basins
- Possibly cumbersome GSA board representation

### **Hybrid: Use county-wide resources with basin-specific management decisions**

- Realize benefits of both disaggregated & centralized structures
- Multi-layered, potentially complex structure

*Note: The Act allows for multiple GSAs and/or multiple GSPs for each basin, but requires “coordination agreement”*

## Initial Steps for Developing GSA Governance

- March 17 Board of Supervisors/Directors Briefing
- Retained facilitator for stakeholder assessment
- Based on assessment, facilitator will recommend process for development of GSA governance options and stakeholder outreach
- Workgroup returns to BOS/BOD for consideration of governance process
- Initiate governance development process upon approval by eligible local agency governing bodies
- Continue outreach and education

## Next Steps for GSA Formation

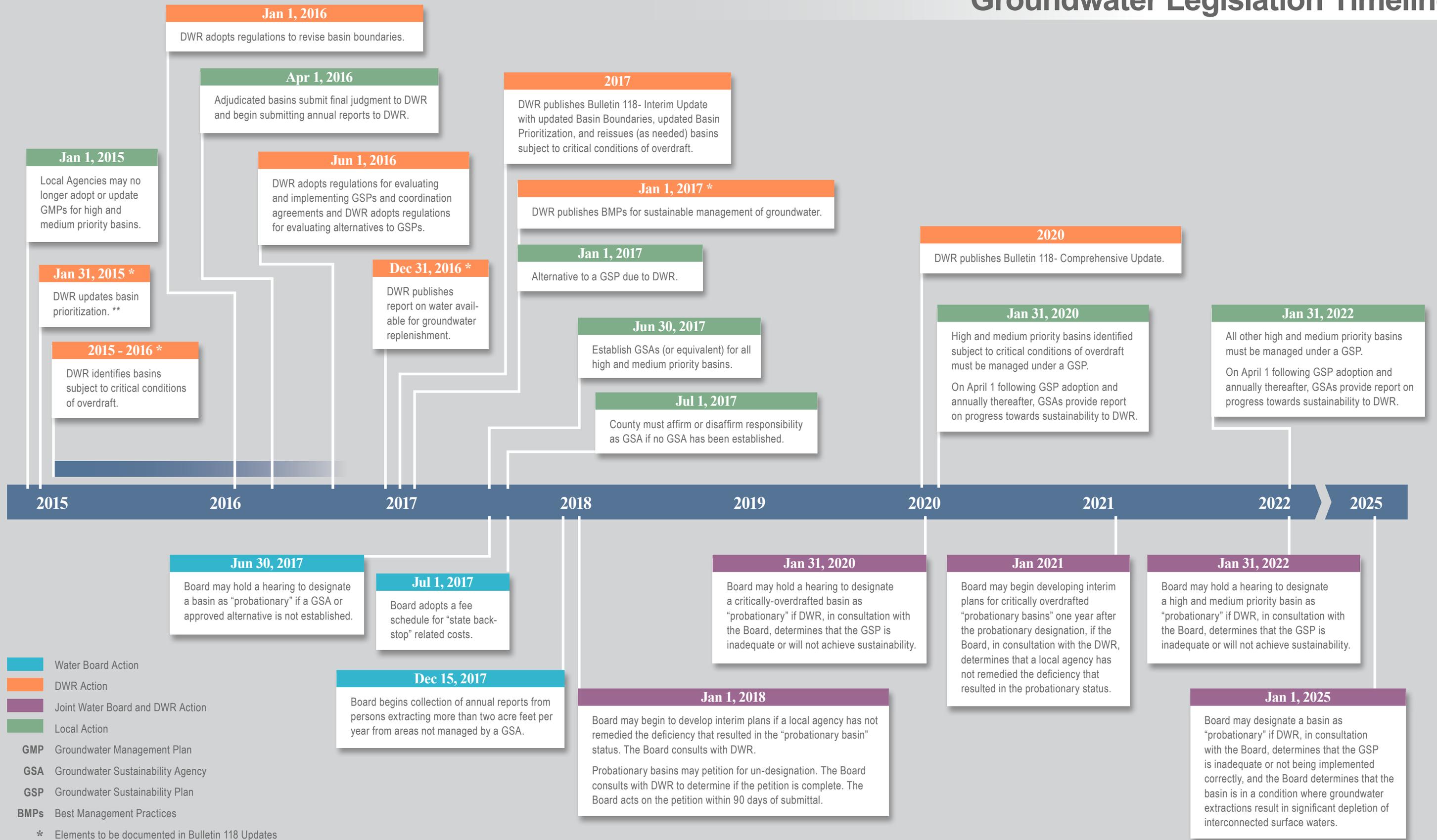
- Continue implementation of existing groundwater management plans - existing Groundwater Management Plans remain in effect until new GSPs are developed:
  - Santa Rosa Plain - focus on community outreach & monitoring
  - Sonoma Valley - address groundwater declines
- Increase community awareness of impacts of SGMA
- Monitor follow-up legislation

## Questions?

**Additional resources can be found at:  
[www.sonomacountywater.org/sgma](http://www.sonomacountywater.org/sgma)**



# Groundwater Legislation Timeline

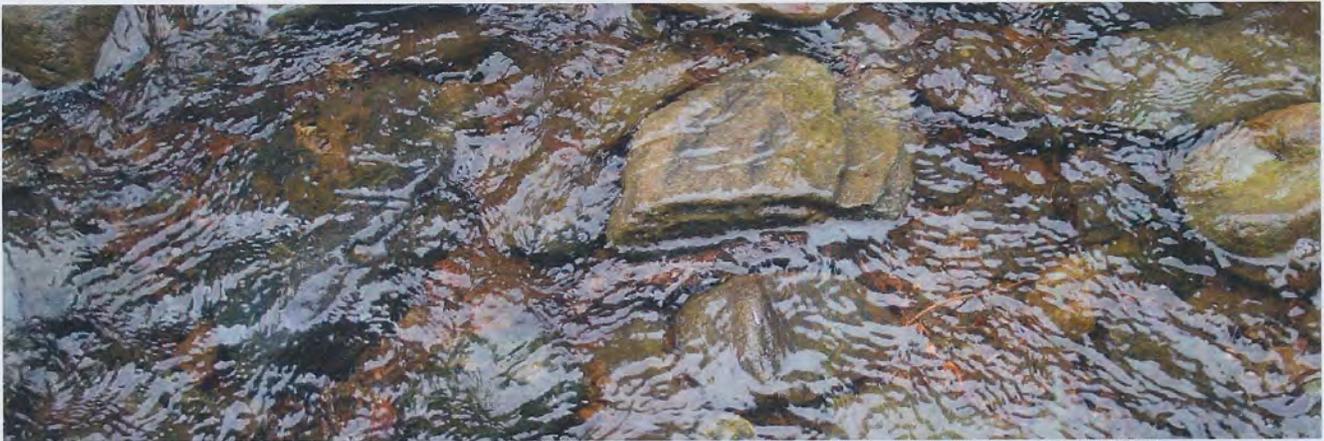


- Water Board Action
- DWR Action
- Joint Water Board and DWR Action
- Local Action
- GMP** Groundwater Management Plan
- GSA** Groundwater Sustainability Agency
- GSP** Groundwater Sustainability Plan
- BMPs** Best Management Practices

\* Elements to be documented in Bulletin 118 Updates  
 \*\* Basin prioritization will be updated prior to each Bulletin 118 Update (estimated to be every 5 years)

# SUSTAINABLE GROUNDWATER MANAGEMENT ACT IN SONOMA COUNTY

Frequently Asked Questions · December 2014



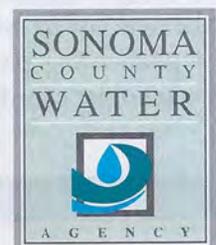
In September 2014, Governor Jerry Brown signed historic legislation requiring California's most critical groundwater resources to be sustainably managed. With the governor's signature, groundwater will be comprehensively managed for the first time in the state's history.

The Sustainable Groundwater Management Act (SGMA) gives local agencies the powers needed to manage groundwater in a sustainable manner over a long-term horizon. The act requires that Groundwater Sustainability Agencies (GSAs) be established and that Groundwater Sustainability Plans (GSPs) be developed for medium- and high-priority basins.

For general information about the SGMA, go to [www.sonomacountywater.org/groundwater](http://www.sonomacountywater.org/groundwater). The frequently asked questions, below, address how the SGMA could impact Sonoma County.

**WHAT IS "SUSTAINABLE" GROUNDWATER MANAGEMENT?** The SGMA defines sustainable management as managing and using groundwater in a way that can be sustained over a long period of time. Specifically, sustainable yield is defined as the amount of groundwater that can be withdrawn annually without chronically lowering groundwater levels, causing seawater intrusion, degrading water quality, causing land subsidence or depleting interconnected surface water (for example, creeks, streams and rivers) in a manner that causes significant and unreasonable impacts.

**WHERE ARE THE GROUNDWATER BASINS IN SONOMA COUNTY?** There are 14 state-identified groundwater basins and sub-basins in Sonoma County (see map). Three of these – Santa Rosa Plain groundwater subbasin, Sonoma Valley groundwater subbasin and Petaluma Valley groundwater basin – are currently designated medium priority by the California Department of Water Resources (DWR). The SGMA requires these three basins to have a locally-adopted Groundwater Sustainability Plan (GSP). A GSP is not required for Sonoma County's 11 low- and very low-priority basins and subbasins, nor does the SGMA apply outside of mapped groundwater basins. Basins are prioritized based on a number of factors, including population, amount of irrigated agriculture and reliance on groundwater. The DWR may reprioritize basins in the future, which could result in medium-priority basins moving into the high-priority category and low- or very-low priority basins moving into the medium category.





**WHO WILL MANAGE GROUNDWATER IN SONOMA COUNTY?** The new law states that the Groundwater Sustainability Agency (GSA) must be a public agency (or combination of agencies) that either manages or supplies water or that has land-use authority within the groundwater basin (primarily cities, counties and water districts). In Sonoma County, several public agencies are eligible to be part of the GSA in each basin. For example, the County of Sonoma and/or the Sonoma County Water Agency could be the GSA that encompasses any or all of the basins in the county. In addition, cities and water districts within the groundwater basin could be the GSAs. If no agencies want to manage groundwater, the County of Sonoma becomes the GSA, unless it opts out. If the county opts out, the State Water Resources Control Board will step in.

The deadline for the creation of GSAs is June 30, 2017. As a first step, in October 2014, County and Water Agency staff formed a workgroup to consider governance options and have been meeting with stakeholders to inform them of the new law's requirements and to discuss collaborative approaches. Staff will report back to the Boards in late winter/early spring 2015.

**ISN'T GROUNDWATER ALREADY MANAGED IN SONOMA VALLEY AND SANTA ROSA?** Both Sonoma Valley and the Santa Rosa Plain groundwater basins have groundwater management plans that were collaboratively developed by diverse stakeholder groups known as Basin Advisory Panels. These voluntary, non-regulatory plans are an excellent first step, and will significantly advance the region's ability to comply with the new law by establishing a robust data collection and monitoring program, and by promoting, studying and implementing programs and projects aimed at sustaining the basins' groundwater resources and fostering stakeholder coordination. These plans, however, don't meet the more stringent requirements of the new law and

will need to be updated unless it can be demonstrated that the basin has operated within its sustainable yield over a period of at least 10 years.

For example, the current plans include actions that could result in sustainable groundwater basins, if implemented through the voluntary cooperation of well owners and agencies. In contrast, the new law requires each Groundwater Sustainability Plan (GSP) to include actions that will be taken to meet the sustainability goal in each basin. And, for the first time, the Act provides the GSA with authority to ensure that these basins will reach groundwater sustainability within 20 years.

**WHEN WILL THE PLAN BE IN PLACE?** The SGMA provides ample time to implement the new requirements. Some key deadlines are below:

Time	Action
June 30, 2017	Formation of GSAs
January 31, 2020	Completion of plans in critically overdrafted basins (does not apply in Sonoma County basins at this time)
January 31, 2022	Completion of plans in all other basins
20 years after adoption of plan	High- and medium-priority basins achieve sustainability

**WILL STAKEHOLDERS BE INVOLVED IN IMPLEMENTING THE SGMA?** The SGMA requires that specific stakeholders and the general public be consulted in the development of the GSP. Given the critical role of local agencies, agriculture, the environmental community, and private well owners in the Basin Advisory Panels in Sonoma Valley and Santa Rosa Plain, it is anticipated that diverse stakeholders and the public at large will continue to be involved in implementing the SGMA in Sonoma County. Collaboration and stakeholder involvement will be key to the successful implementation of the SGMA.

**HOW WILL THE NEW LAW AFFECT ME?** It will be several years before local GSPs are adopted. Until then, the law will have no effect on well owners. The SGMA gives local agencies broad authority to manage groundwater, including authority to increase groundwater supply (for example, projects to increase groundwater recharge) and to manage groundwater demand through well monitoring and, if necessary, regulating groundwater extraction. Local agencies also have authority to assess fees for groundwater management. Local agencies in Sonoma County will decide which of these new authorities, if any, are needed to sustainably manage groundwater. Given that the groundwater sustainability process is only beginning, including numerous opportunities for public and well owner input, it is speculative to identify specific impacts of the new law on well owners. Once plans are adopted, the impacts could vary depending on where your well is located to the amount of water you pump annually.

**DOES THE SGMA AFFECT MY WATER RIGHTS?** Section 10720.5 of the SGMA specifies that the act and any groundwater management plans developed as a result of the act do not affect surface or groundwater rights.

**WHO WILL PAY FOR THE IMPLEMENTATION OF THE SGMA AND ANY PROGRAMS/PROJECTS?** Proposition 1, approved by the voters in November 2014, provides \$100 million statewide to fund the implementation of the SGMA. Local agencies will aggressively pursue this funding and other grant opportunities. The new law also allows for the GSA(s) to collect fees to help pay for the costs of preparing and implementing GSPs.

**WILL THE SGMA LIMIT HOW MUCH WATER I CAN USE?** Locally developed GSPs will include programs and projects needed for each basin to become sustainable within 20 years. Under the SGMA, it is possible that a local plan could limit the water pumped by individual well owners. Practically, restrictions on water use would likely be limited to situations where other measures failed to improve groundwater conditions.

**HOW CAN I LEARN MORE?** For more information, go to [www.sonomacountywater.org/groundwater](http://www.sonomacountywater.org/groundwater).



WILL STATEHOOLDERS BE INVOLVED IN IMPLEMENTING THE SGMA? The SGMA requires local agencies to develop groundwater sustainability plans (GSPs) that include groundwater monitoring and management programs. Stateholders will be involved in the process through public participation and advisory committees. The SGMA also requires local agencies to provide information to the public about groundwater conditions and the progress of their GSPs.

HOW WILL THE NEW LAW AFFECT ME? The SGMA will affect you if you own a well in a groundwater basin that is subject to the SGMA. You may be required to provide information about your well and its use to your local agency. You may also be required to participate in groundwater monitoring and management programs. The SGMA also requires local agencies to provide information to the public about groundwater conditions and the progress of their GSPs.

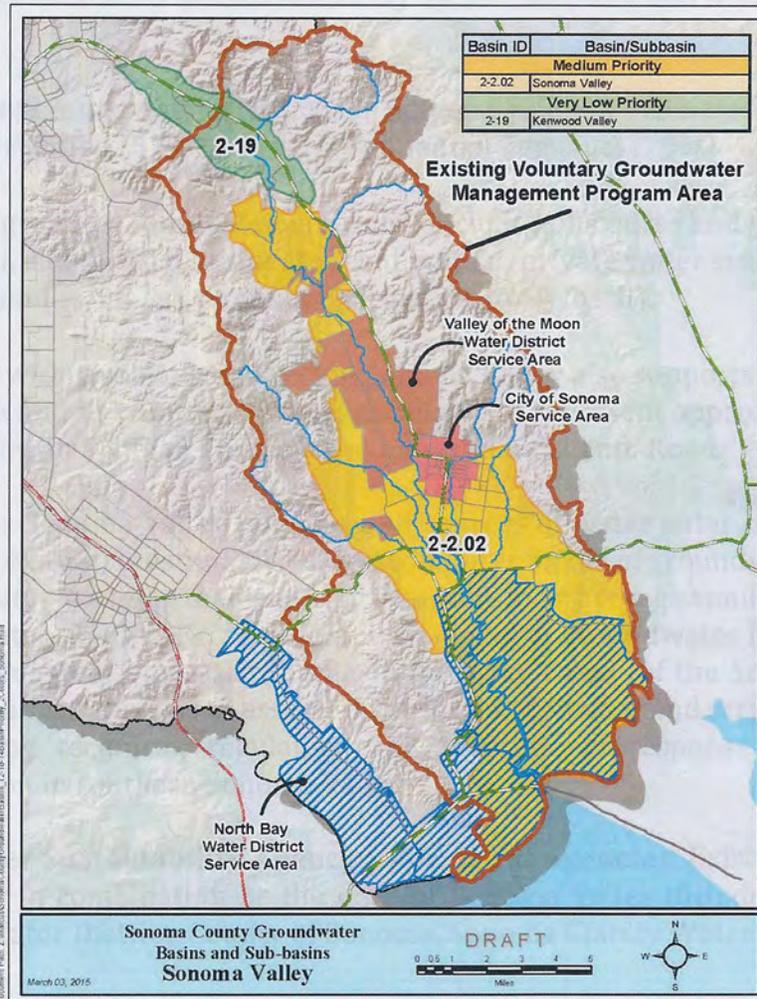
DOES THE SGMA AFFECT MY WATER RIGHTS? The SGMA does not affect your water rights. However, it does require local agencies to develop groundwater sustainability plans (GSPs) that include groundwater monitoring and management programs. The SGMA also requires local agencies to provide information to the public about groundwater conditions and the progress of their GSPs.

DOES THE SGMA AFFECT MY WATER RIGHTS? The SGMA does not affect your water rights. However, it does require local agencies to develop groundwater sustainability plans (GSPs) that include groundwater monitoring and management programs. The SGMA also requires local agencies to provide information to the public about groundwater conditions and the progress of their GSPs.



## Sonoma Valley Groundwater Subbasin

The 44,700-acre Sonoma Valley Groundwater Subbasin is located within the larger 106,680-acre Sonoma Creek watershed. An existing Groundwater Management Plan (GMP) adopted by the Water Agency's Board of Directors in 2007 covers the entire Sonoma Creek watershed, including the southern half of the Kenwood groundwater basin and upland areas that are outside of California Department of Water Resources (DWR)-defined groundwater basins.



Groundwater in Sonoma Valley is obtained from wells within both shallow (generally less than 200 feet deep) and deeper aquifers (generally greater than 200 feet deep).

- Groundwater-level trends within shallow aquifers are generally stable,
- Groundwater level declines within deep zone aquifers, primarily in the southwestern and southeastern Sonoma Valley, have persisted for the last decade or more and appear to be

## Sonoma Valley Groundwater Subbasin

expanding. Groundwater levels in many wells in these two areas are declining at rates of several feet per year and have locally fallen below sea level.

- While groundwater quality within the Sonoma Valley is generally good, brackish groundwater present beneath the southernmost Sonoma Valley has historically affected water wells located in this area and represents a threat to groundwater resources should groundwater declines continue to persist.

Based on recent analysis of water demands, the total amount of groundwater used in Sonoma Valley for 2012 was estimated to be approximately 10,500 acre-feet and represents nearly 60% of the total water use.

- The majority of groundwater produced in Sonoma Valley is estimated to be used for agricultural irrigation (52%) and rural residential demands (29%).
- Other uses of groundwater in Sonoma Valley include golf course and park irrigation (7%), and municipal, commercial businesses, and mutual/private water systems for small communities and subdivisions (ranging from 3% to 5% each).
- Groundwater within shallow aquifers of Sonoma Valley also supports streamflows in Sonoma Creek and its tributaries and is estimated to represent approximately 50% of the total streamflow in Sonoma Creek upstream of Agua Caliente Road.

The water budget for Sonoma Valley (amount and sources of water entering versus the amounts and sources of water exiting) is estimated using a computer model of groundwater flow. The results indicate that more water is exiting than entering, resulting in an average annual loss of groundwater storage of approximately 1,400 AFY. The computer model of groundwater flow is currently being updated by the Water Agency to assist the Basin Advisory Panel (of the Sonoma Valley GMP) in performing an alternatives analysis to assess scenarios and consider and screen a range of possible approaches (including technical, regulatory and institutional response actions) to address groundwater depletion in southern Sonoma Valley.

**Eligible Groundwater Sustainability Agency (GSA) Local Agencies:** Existing local agencies that could individually or in combination be the GSA for Sonoma Valley include: the City of Sonoma, Valley of the Moon Water District, County of Sonoma, Sonoma County Water Agency and the North Bay Water District<sup>1</sup>.

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<sup>1</sup> The North Bay Water District was formed by special election on December 17, 1963 under the California Water District provisions of the Water Code. This district does not have facilities or provide service. The district's board of directors meets once a year.



## Update of Sonoma Valley Groundwater Flow Model

The Sonoma County Water Agency (Water Agency), in coordination with the Technical Advisory Committee for the Sonoma Valley Groundwater Management Program (GMP), is updating the Sonoma Valley Groundwater Model (SVGGM).

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**Goal & Objectives:** The Goal of the model update is to provide the Basin Advisory Panel (Panel) with an **updated tool for simulating groundwater responses to specific scenarios, under current and future hydrologic and land use conditions, in order to evaluate water management alternatives for addressing declining groundwater levels in Sonoma Valley.**

The primary objectives for the updated groundwater flow model include the following:

- Evaluate future baseline and climate change scenarios
- Evaluate Sustainable Yield and potential triggers for measurable groundwater-level BMOs currently being developed by the TAC and Panel
- Evaluate water management alternatives, as identified by the TAC and Panel, through scenario modeling

Other important objectives the updated model are:

- Refined understanding of basin hydrogeology
- Identification of areas where additional data collection should be focused
- Improved understanding of potential brackish water intrusion

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**New Data and Information:** A large amount of new information and data has been collected and evaluated through the Sonoma Valley GMP since the development of the previous groundwater models. **This new data and information will be used to improve the parameterization and calibration of the model** and includes:

- Hydrostratigraphic analysis and conceptualization from well log data;
- Groundwater-level data from a much larger network of observation wells;
- Data from additional stream gauging and seepage runs;
- Improved and updated estimates of groundwater demands; and
- Recent land use mapping.

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**Planned Updates:** Updates to the model from previous versions will include:

- Refinement of model grid size and re-layering of the model to better represent hydrostratigraphic units
- Incorporation of a rainfall-runoff model of the entire watershed to better represent distribution of recharge
- Improve representation of surface water-groundwater interaction along Sonoma Creek and its tributaries
- Dynamic estimation of crop water demands that incorporates precipitation, crop type and land use changes, farm efficiencies, and climate
- Improved estimates and representation of groundwater demands spatially and by layer
- Refinements of model stress periods and time steps to better reflect seasonal variations
- Improve estimates of aquifer properties and distribution using lithologic data from well logs and available aquifer test data
- Incorporation of unsaturated flow within model to better represent timing of recharge
- Uncertainty analysis to better understand and convey applicability and limitations of the model

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**Planned Use of Model:** Once calibrated, the updated model will be utilized to simulate future conditions with planned future growth (including agricultural development and changes in water demand) and potential climate changes. The TAC and Panel will then select management alternatives that can be simulated using the model to evaluate the groundwater system's potential response to specific actions. The results of the scenario modeling will be shared with the Panel to assist in recommending and prioritizing alternative management actions to address declining groundwater levels in Sonoma Valley. The model will also be used to identify areas where additional data or information should be collected to improve the understanding of the groundwater system beneath Sonoma Valley.

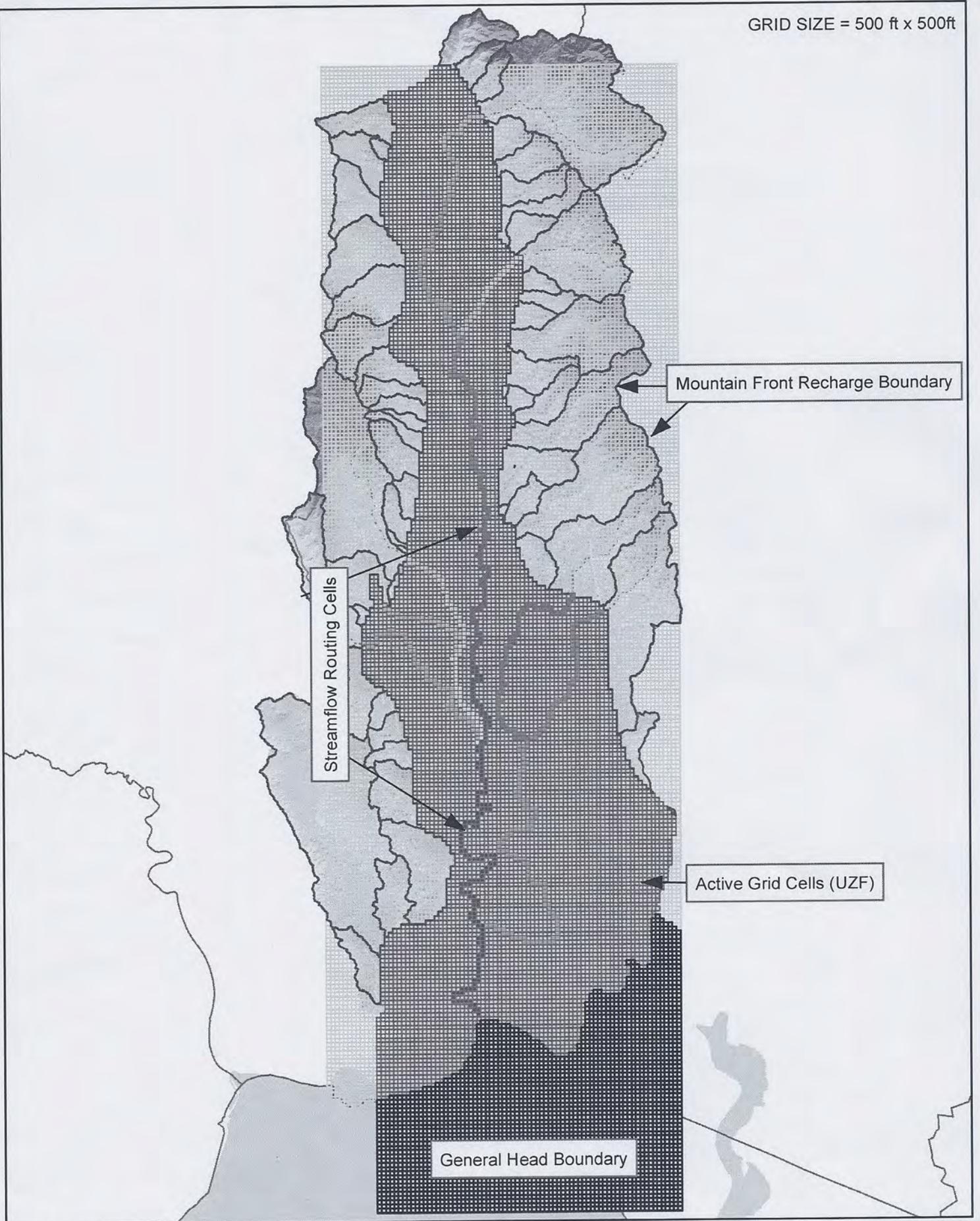
It is important to understand that numerical models are only simplified approximations of the complex natural system being modeled. Not all detail within the system can be incorporated within the model, and small-scale features or issues may not be represented by the model. As with any groundwater model, there will still be data and numerical limitations which will influence the accuracy of the model. The goal for the current update to the model is to develop a model suitable for simulating groundwater level responses to selected water management alternatives within an acceptable range of accuracy.

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**Schedule:**

<b>Done</b>	Model construction – Updating boundary conditions and layering, input parameters
<b>Present to June 2015</b>	Model calibration and uncertainty analysis
<b>July to Aug 2015</b>	Baseline and climate change scenarios
<b>Sept. to Dec 2015</b>	Management alternative scenarios selected by TAC and Panel

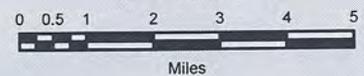
GRID SIZE = 500 ft x 500ft



December 17, 2014

**Sonoma Valley  
Groundwater Management Program  
Sonoma Valley Groundwater Model  
Grid and Boundary Conditions**

**DRAFT**



Preliminary DRAFT Screening Matrix of Proposed Technical Alternatives

Item No.	PROPOSED TECHNICAL ALTERNATIVE	Screening Criteria										Notes
		Relative Cost	Readiness to Proceed	Feasibility/Implementability	Leveraging Opportunity	Community & Political Support	Multi-Objective/Supports Watershed Objectives	Effectiveness Addressing GW Depletion	Address Impacts/Unintended Consequences	Address Impacts/Unintended Consequences	Address Impacts/Unintended Consequences	
<b>Stormwater Capture &amp; Recharge</b>												
1	Option 1 - Medium to large scale project(s) 40 to 100 acres total, 20-50 acres each	\$\$	L	?	H	?	H	M	?			Technical Feasibility and Locations TBD
2	Option 2 - Agricultural distributed stormwater capture and recharge - ¼ to ½ acre each	\$	M	M	M	H	?	L	?			Technical Feasibility and Locations TBD
3	Option 3 - Domestic distributed stormwater capture and recharge (LID approach)	\$\$	M	M	H	H	H	L	L			
<b>Stormwater Capture and Storage</b>												
4	Option 1 - Small surface storage ponds (No. acre/storage volume) - ¼ to ½ acre each	\$	H	H	M	H	H	L	L			
5	Option 2 - Large surface storage ponds (No. acre/storage volume) 40 to 100 acres total, 20-50 acres each	\$\$	L	?	M	?	M	M	M			
<b>Groundwater Banking</b>												
6	Option 1 - Contractor Facilities - One to two wells each for City of Sonoma and Valley for the Moon Water District	\$	M	M	M	M	M	L/M	L			Technical Feasibility TBD
7	Option 2 - Facilities outside Water Contractor areas - One to two wells each for both of the depleted areas	\$\$\$	L	L	L	L	M	H	?			Technical Feasibility TBD/Requires Institutional changes
<b>Increase Recycled Water Use to Reduce Groundwater Demand</b>												
8	Option 1 - Agricultural irrigation and commercial landscape irrigation	\$\$/\$ \$\$	M	H	M	M/H	M	M/H	L			Needs to be split into Phases
<b>Increase Conservation to Reduce Groundwater Demand</b>												
9	Option 1 - Increase Rural Area Domestic Conservation	\$	H	H	M	H	M	M	L			
10	Option 2 - Increase Rural Area Agricultural Conservation	\$	M	M	M	H	M	M	L			
<b>In Lieu Surface Water Substitution for Groundwater</b>												
11	Option 1 - Rural agricultural and domestic wells replacement with imported surface water	\$\$\$	L	L	M	?	M	H	M			Technical Feasibility TBD/Requires institutional changes/storage
<b>Pumping Redistribution</b>												
12	Option 1 - Rural agricultural and domestic pumpage redistributed from groundwater depletion areas	\$\$\$	L	L	M	L	M	H	H			Technical Feasibility TBD/Requires institutional changes
<b>Salinity Intrusion Mitigation</b>												
13	Option 1 - Replace groundwater wells with imported surface water along southern valley	\$\$\$	L	L	M	?	M	M	H			Requires institutional changes
14	Option 2 - Injection wells along southern valley – recycled water and/or imported water	\$\$\$	L	L	M	?	M	M	M			Technical Feasibility TBD/Requires significant water quality permitting
<b>Desalination</b>												
15	Desalination plant with intake at San Pablo Bay or tidal marshlands area	\$\$\$\$	L	L	M	L	L	L	H			Technical Feasibility TBD

? | Unknown or Significant Uncertainty