

# The 2014 Sustainable Groundwater Management Act: A Handbook to Understanding and Implementing the Law

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The mission of the Water Education Foundation, an impartial, nonprofit organization, is to create a better understanding of water resources and foster public understanding and resolution of water resource issues through facilitation, education and outreach.

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# The Sustainable Groundwater Management Act: An Overview

California wouldn't be the economic powerhouse it is today without groundwater. The semi-arid, Mediterranean climate only brings so much rain, meaning that for more than 100 years, the ground has been drilled to pump the precious groundwater resource that has helped fuel the state's agricultural industry and establish the development of cities and industries.

The numbers bear this out: on average, groundwater accounts for about 40 percent of the state's annual water supply. That number grows to 60 percent or more in dry years, when creeks, rivers and reservoirs are strapped by drought. But some communities are totally reliant on groundwater, whether it is a drought or not.

Yet, the overreliance on groundwater in some areas has come at a steep price. The advent of bigger and better pumping technology meant more water could be reached from even deeper in the Earth. Pulling out so much water so fast caused the ground to sink or subside, in parts of the San Joaquin Valley, along the coast and in Southern California while creating a crisis of shared supply.

## What is Groundwater?

Water gets into the ground mostly through snowmelt and rain seeping into the soil and broken rocks underneath the ground, and through overland flow in channels, such as creeks, streams, rivers and ponds.

The water infiltrating the underground basin moves gradually, pulled by gravity, into the saturated zone of the subsurface. From here, groundwater will flow toward points of discharge such as rivers, lakes or the ocean to begin the cycle anew. Groundwater is collected with wells and pumps, or it can flow naturally to the surface via seepage or springs.

Groundwater can be thousands of years old, although typically it is extracted within years or decades after it originally moves underground through small openings within porous material, called aquifers.

Aquifers can be several feet thick or several thousand feet thick. California's alluvial aquifers are composed of gravel, sand, silt and clay that have been eroded from surrounding rocks and then are deposited by running water and sometimes wind. Aquifers in the Central Valley and in the Los Angeles area can hold large quantities of water. California's largest and most heavily used groundwater basins are in the Central Valley.

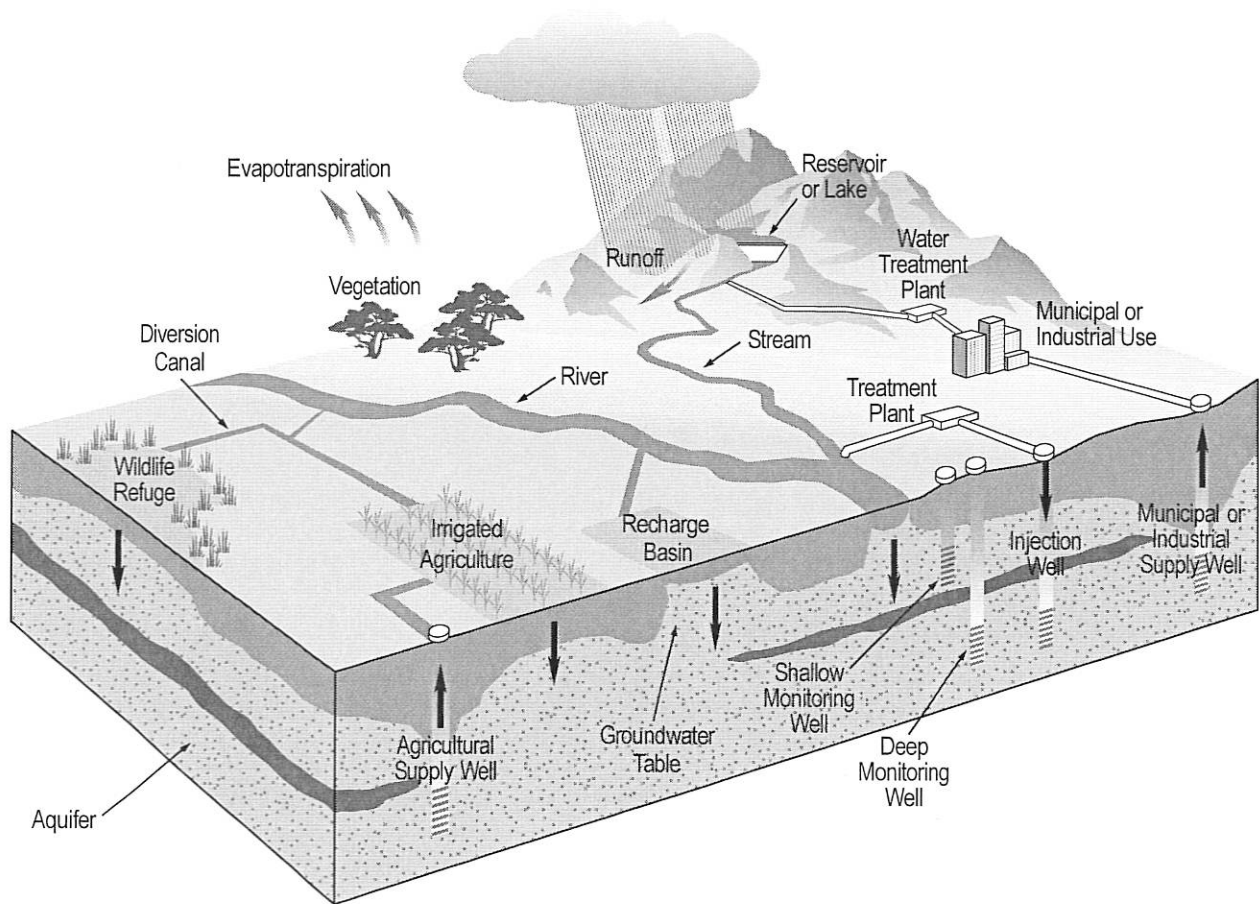
Because these alluvial aquifers are generally very permeable they can provide large quantities of water to wells.

Although the exact number of water wells in California is unknown, DWR figures and other calculations show that there are 700,000 to more than 1 million wells in the state.

Statewide, the Department of Water Resources (DWR) believes the annual rate of overdraft – taking more water from aquifers than can be replenished by rain and other means – to be 1 million to 2 million acre-feet. During the past three-year drought, there is concern that overdraft has increased, especially in the Central Valley.

The drought resulted in many new wells being drilled in Shasta, Butte, Stanislaus, Merced, Fresno, Kern, Kings, and Tulare counties, with Fresno and Tulare leading the way at more than 350 new wells, according to DWR. Because of the rate of pumping, areas with a higher potential for future subsidence are located in the southern San Joaquin, Antelope, Coachella, and western Sacramento valleys.

The issue of overdraft is one topic that led to periodic discussions about whether California needed statewide groundwater regulation even as regional management efforts in some areas proved that municipal water agencies, water replenishment districts and irrigation districts could develop methods to balance groundwater extraction and recharge and reduce groundwater overdraft.



In 2014 as the Legislature investigated the extent of the problem, members learned that data from the National Aeronautics and Space Administration (NASA)/German Aerospace Center Gravity Recovery and Climate Experiment (Grace) satellites revealed that between 2003 and 2009 the aquifers for the Central Valley and its major mountain water source, the Sierra Nevada, had lost almost 26 million acre-feet of water – which is nearly enough water combined to fill Lake Mead, America’s largest reservoir. Thus, members began to deliberate on a statewide management bill.

In his 2014 California Water Action Plan, Gov. Jerry Brown noted the need to instill sustainable groundwater management:

“Groundwater is a critical buffer to the impacts of prolonged dry periods and climate change on our water system,” the Plan said. “When a basin is at risk of permanent damage, and local and regional entities have not made sufficient progress to correct the problem, the state should protect the basin and its users until an adequate local program is in place.”

In September Brown signed the Sustainable Groundwater Management Act (SGMA). The law’s intent is for local and regional agencies to develop and implement sustainable groundwater plans with the state as the backstop – should it prove necessary – to adopt an interim groundwater management plan.

Prior to the SGMA that went into effect Jan. 1, 2015, some groundwater basins were managed under the auspices of legislatively created special districts. Some of these districts have the authority to regulate how much water is pumped and, in some cases, to levy fees to support their actions.

According to a legislative analysis, more than 20 counties adopted ordinances governing the use of groundwater, including specifically banning transfers of groundwater outside of their jurisdiction. Counties also issue drilling permits for new wells.

There are at least 22 groundwater basins, mostly in Southern California, that have been adjudicated – a process in which the court decides how much groundwater can rightfully be extracted by each landowner. The court appoints a watermaster to regulate the adjudication.

Some 149 groundwater management plans in California were developed after the “AB 3030” law was passed almost 25 years ago. The law allowed local agencies to develop groundwater management plans to account for issues such as seawater intrusion, wellhead protection, recharge, groundwater cleanup, overdraft, conjunctive use, storage, conservation, recycling and extraction projects.

But the plans were strictly voluntary and did not allow local entities to control extractions from the groundwater basin. Thus, overdraft and land subsidence continued to be a problem in many areas.

In 2009 one component of the comprehensive water legislation in SB 6 X7, established a statewide groundwater elevation monitoring program, but not individual groundwater well extraction monitoring, to track seasonal and long-term trends in groundwater elevations in California’s groundwater basins. Data from this program demonstrated the severity of the overdraft issues and generated a debate about whether a stronger groundwater management system was needed.

Lawmakers spent the better part of 2014 looking at how to deal with groundwater and came up with a series of bills that evolved into the SGMA. According to the Act, sustainable groundwater management means “the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.”

## The SGMA

The Sustainable Groundwater Management Act (SGMA) gives local agencies the authorities to manage groundwater in a sustainable manner and allows for limited state intervention when necessary to protect groundwater resources. The SGMA requires the creation of groundwater sustainability agencies to develop and implement local plans allowing 20 years to achieve sustainability. The SGMA provides a state framework to regulate groundwater for the first time in California history.

The SGMA specifically:

- Establishes a definition of sustainable groundwater management
- Establishes a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources
- Prioritizes basins with the greatest problems (ranked as high- and medium-priority)
- Sets a 20-year timeline for implementation.

The SGMA includes provisions to promote engagement by interested parties in the formation of a GSA and development and implementation of a GSP. GSAs have to identify key parties and maintain records that spell out plans on how to include their interests in GSA operations and GSP development. The Act requires the GSA to provide this information to DWR.

The GSA is the primary agency responsible for achieving sustainability within the timeframe. The SGMA includes many new authorities and tools for GSAs. For example, in developing a GSP, a GSA may opt to conduct investigations, measure and limit extraction, require registration of wells or impose fees for groundwater management. Under the Act, DWR has the lead role in working with local agencies in implementing its provisions. DWR is available to provide technical assistance to GSAs.

The SGMA, a product of an exhaustive consultative process with water agencies, business interests, environmental organizations, and farmers, required DWR to identify high- and medium-priority basins that must establish Groundwater Sustainability Agencies (GSAs). In December DWR confirmed that the classifications it announced in June 2014 through the California Statewide Groundwater Elevation Monitoring (CASGEM) system would be the used in conjunction with the law.

The GSAs, made up of one or more local agencies overlying a groundwater basin, will be required to develop Groundwater Sustainability Plans (GSPs). GSAs responsible for high- and medium-priority basins must adopt GSPs within five to seven years, depending on whether the basin is in critical overdraft. Agencies may adopt a single plan covering an entire basin or combine a number of plans created by multiple agencies. Preparation of groundwater sustainability plans is exempt from the California Environmental Quality Act (CEQA).

GSPs must include a physical description of the basin, including groundwater levels, groundwater quality, subsidence, information on groundwater-surface water interaction, data on historical and

projected water demands and supplies, monitoring and management provisions, and a description of how the plan will affect other plans, including city and county general plans. GSPs can build upon existing groundwater plans.

### **Key Definitions in the SGMA**

“Sustainable yield,” according to the SGMA, means the maximum quantity of water – calculated over a base period representative of long-term conditions in the basin and including any temporary surplus – that can be withdrawn annually from a groundwater supply without causing an undesirable result.

The act further defines “sustainable groundwater management” as the “management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.”

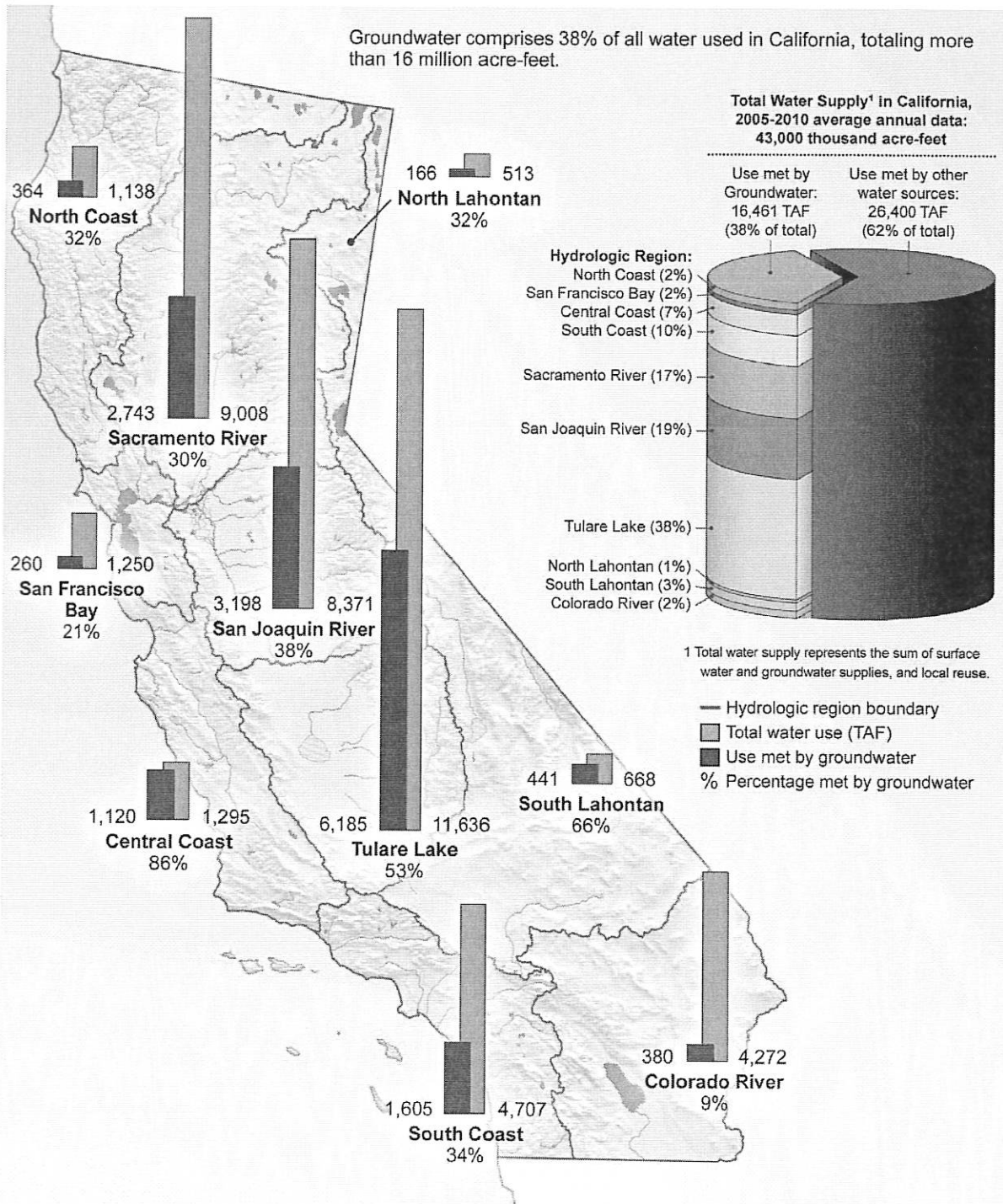
“Undesirable result” means any of the following effects caused by groundwater conditions occurring throughout the basin:

- Chronic lowering of groundwater levels, but excluding reductions in groundwater levels during a drought if they are offset by increases in groundwater levels during other periods;
- Significant and unreasonable reductions in groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degradation of water quality;
- Significant and unreasonable land subsidence; and
- Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses.

Overdrafted basins must achieve groundwater sustainability by 2040 or 2042, predicated on the completion of plans, which are expected to take five to seven years to complete. If deadlines aren't met, the State Water Resources Control Board (State Water Board) can intervene and establish an interim plan, after public notice and hearing.

The law stipulates that it is not a “one size fits all” approach and that each groundwater basin is different. It does not remove the distinction between surface water rights and the personal, private property right to pump groundwater and does not allow the disclosure of how much water an individual pumps. The state, according to the SGMA, can intervene only in extreme conditions when local control is inadequate.

Groundwater comprises 38% of all water used in California, totaling more than 16 million acre-feet.



Source: DWR



# Approach and Options for New Groundwater Governance

Prior to passage of the SGMA, groundwater was largely unregulated in the state of California, especially compared to the comprehensive permit system for the state's surface water rights. California was the last state in the West to adopt a groundwater management law.

Historically there were four basic options for local groundwater management: management by local agencies under AB 3030, management by special act districts under special authority granted by state statute, city and county ordinances, or court adjudications.

## **Management by Local Agencies Under AB3030 and SB1938**

In 1992 the state adopted AB 3030 (Water Code Section 10750-10756) so local agencies could voluntarily create a plan to manage groundwater and tackle issues such as sea water intrusion into drinking water wells, groundwater overdraft and contaminated groundwater. Better coordination of using surface water and groundwater supplies, known as conjunctive use, was another focus of some plans.

Subsequently, the Legislature passed SB 1938 in 2002 requiring public agencies seeking state funding for groundwater projects to submit a management plan to DWR with specified components. To date, 149 groundwater management plans have been developed. As of 2013 (under terms of AB 359) a copy of all plans are required to be submitted to the state for public information and use.

These laws encouraged local groundwater management planning, and some regions have made progress to improve management efforts. But the laws did not require the plans to achieve a sustainable management goal for the groundwater basin and did not provide local agencies the authorities needed to effectively manage a groundwater basin.

## **Management by Special Act Districts**

Another form of local groundwater management is special act districts. These are created by the Legislature in response to specific concerns. Their powers are customized to the problems and solutions of a particular groundwater basin. For example, the Orange County Water District statute provided for the district to establish a groundwater replenishment assessment, commonly known as a pump tax. The Legislature granted the Santa Clara Valley Water District similar authorities. In addition, 12 other special groundwater management districts have been established through a special act of the Legislature with the specific authority to manage groundwater, although the authority of each agency varies. These special districts are: Desert Water Agency, Fox Canyon Groundwater Management Agency, Honey Lake Groundwater Management District, Long Valley Groundwater Management District, Mendocino City Community Services District, Mono County Tri-Valley Groundwater Management District, Monterey Peninsula Water Management District, Ojai Groundwater Management Agency, Pajaro Valley Water Management Agency, Sierra Valley Groundwater Management District, Willow Creek Groundwater Management Agency and, most recently, the Paso Robles Basin Management District authorized in 2014 by AB 2453.

## Local Ordinances

Counties and cities have constitutional police power to regulate the use of groundwater. Virtually all local jurisdictions regulate well permitting. In the early 1990s some counties began to pass local groundwater ordinances primarily designed to discourage transferring groundwater from one county to a user in another county – a practice that became controversial during the 1987-1992 drought. More recently a few counties, such as San Luis Obispo, are using their authorities to manage groundwater use through limitations on well permits. According to DWR, 30 of the state's 58 counties have adopted groundwater ordinances.

The power of counties to regulate groundwater has been challenged, but in 1995 the California Supreme Court declined to review an appeal of a lower court decision, upholding the authority for such local ordinances through county's existing police powers.

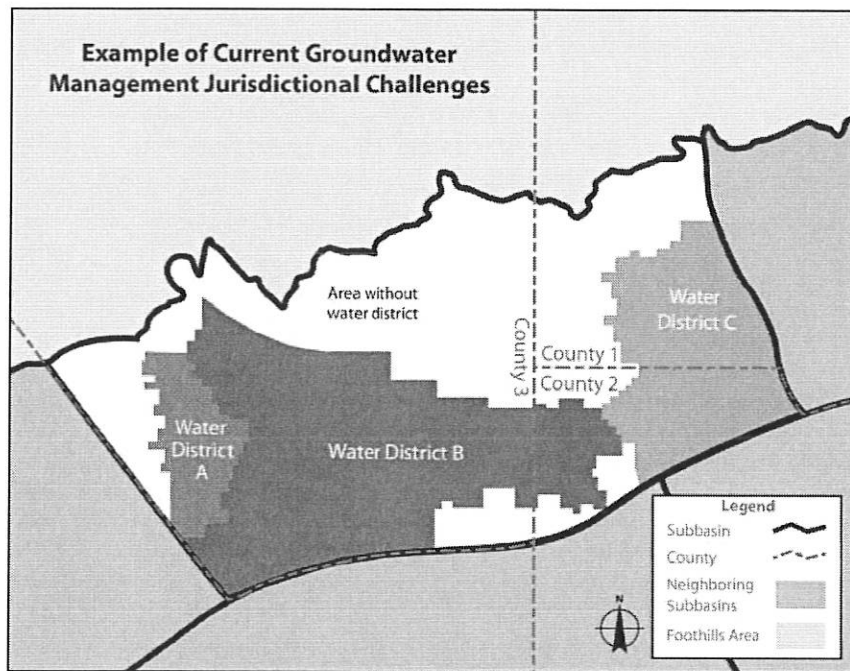
## Groundwater Adjudication

When multiple parties withdraw water from the same aquifer, groundwater pumpers can ask the court to adjudicate, or hear arguments for and against, to better define the rights that various entities or individuals have to use the groundwater resources. Pumpers are assigned a designated share of the basin's water resources, and watermasters are typically appointed by the court to ensure that pumping conforms to the limits defined by the adjudication. Litigation, however, is time-consuming and costly, in part because of the multiple factual questions that must be addressed, including the identity of the pumpers, the respective amounts of historical production, the boundaries of the groundwater basin, and the history of the basin's hydrogeologic status to determine, among other things, when overdraft began. Many adjudications have taken decades to complete.

### Adjudicated Basins

DWR recognizes 22 adjudicated basins. Most of the adjudications have been in Southern California, where development pressures – and groundwater overdraft – quickly overwhelmed limited aquifers. They are: Beaumont Basin (2004), Brite Basin (1970), Central Basin (1965), Chino Basin (1978), Cucamonga Basin (1978), Cummings Basin (1972), Goleta Basin (1989), Main San Gabriel Basin (1973), Mojave Basin Area (1996), Puente Basin (1985), Raymond Basin (1944), Santa Margarita River Watershed (1966), Santa Maria Valley Basin (2008), Santa Paula Basin (1996), Scott River System (1980), Seaside Basin (2006), Six Basins (1998), Tehachapi Basin (1973), Upper Los Angeles River Area (1979), Warren Valley Basin (1977), West Coast Basin (1961) and Western San Bernardino (1969).

The SGMA includes four other basins on its list of adjudicated basins. They are: Lytle Basin, Rialto-Colton Basin, Riverside Basin and San Jacinto Basin. Three other basins in which court processes are underway are also identified in the Act that they will be "treated as an adjudicated basin...if the superior court issues a final judgment, order or decree." They comprise the Antelope Valley cases, Inyo County Case No. 12908 and the Los Osos Groundwater Basin.



Groundwater management is not easy. The resource is out of sight, which can make it difficult to determine water levels, quality and other factors. Basin boundaries are impossible to see. And the boundaries of a basin don't neatly follow jurisdictional lines. In fact, most of the state's basins underlie more than one county or water agency. The basins are quite large in some areas of the state and often consist of subbasins. In addition, most aquifers are being tapped by multiple parties including water agencies or other entities that have systems distributing the groundwater. Individual landowners also are utilizing their right to pump and use the groundwater on their land – and they may reside outside of the boundaries of a water or irrigation district. In basins not managed or regulated by an adjudication, each party can pump as much as it wants and if the groundwater level drops, new and deeper wells can further impact other, neighboring wells. Some refer to such groundwater depletion as a "tragedy of the commons."

The groundwater basin boundaries in the SGMA are those as defined in DWR's Bulletin 118 report on groundwater, which was updated in 2003. There are currently 431 groundwater basins delineated. Of those, 24 basins are subdivided into 108 subbasins for a total of 515 distinct basins. According to Bulletin 118, the basin boundaries were derived primarily by identifying alluvial sediments on geologic maps, using the best available information. (See Basin map Bulletin 118.)

Overlapping jurisdictions exist in many of these basins and there is the potential for questions over which of several existing local agencies should be the designated as the GSA. The GSA allows for the sharing of basin governance through several means including memorandum of agreement, a joint powers agreement or other legal agreement. A basin can thus be managed by several separate GSAs, or just one.

Overall, communication and coordination among multiple stakeholders and governmental entities will be key to addressing these challenges and successfully implementing the SGMA.

## Acronyms

<b>AB</b>	Assembly Bill
<b>CASGEM</b>	California Statewide Groundwater Elevation Monitoring
<b>DWR</b>	California Department of Water Resources
<b>GSA</b>	Groundwater Sustainability Agency
<b>GSP</b>	Groundwater Sustainability Plan
<b>SB</b>	Senate Bill
<b>SGMA</b>	Sustainable Groundwater Management Act of 2014
<b>State Water Board</b>	State Water Resources Control Board
<b>Water Code</b>	California Water Code

## Groundwater Rights

Primarily, landowners in California are entitled to pump and use a reasonable amount of groundwater from a basin underlying their land to put it to a beneficial, nonwasteful use. When there is insufficient water to meet the demands of landowners, they are expected to reduce their use to bring extractions into the “safe yield” of the basin to prevent overdraft. Safe yield is the rate at which groundwater can be withdrawn without causing long-term decline of water levels or other undesirable effects such as subsidence.

Disputes stemming from overdraft and efforts to confine pumping to the basin’s safe yield were the underlying factors of most of the court-adjudicated groundwater basins. Once the groundwater basin has been adjudicated, a court can assign specific pumping extractions to each groundwater user or group of users.

The SGMA is designed to address issues related to both overdraft and safe yield, but does not change existing groundwater rights. Specifically, Water Code section 10720.5(b) says that nothing in the legislation “determines or alters surface water rights or groundwater rights under common law or any provisions of law that determines or grants surface water rights.”

While there is some concern the SGMA will undermine the authority of the local agencies or private property owners, the mandate of the Act is to first provide authority and control at the *local level* to develop and implement GSPs, and that only if local entities fail to do so would the state step in. Additionally, there was never an unfettered right for private property owners to pump as much water as one could – the Constitution has always mandated that it be put to beneficial use.

## **What is a GSA?**

Any local agency or combination of local agencies overlying a groundwater basin may form a GSA for the basin. "Local agency" means a local public agency that has water supply, water management or land use responsibilities within a groundwater basin. The law requires that GSAs be formed by June 30, 2017.

The SGMA identified 43 groundwater basins as high-priority and 84 as medium-priority. These 127 basins must adopt groundwater management plans by 2020 or 2022, depending upon whether the basin is in critical overdraft. GSAs will have until 2040 or 2042 to achieve groundwater sustainability. These 127 basins account for approximately 96 percent of the groundwater used in the state. Most of these basins are in the Central Valley or along the Central and South Coast. Many are currently in overdraft.

The groundwater basins across the state were designated as high, medium, low or very low in the law based on data derived through DWR's California Statewide Groundwater Elevation Monitoring (CASGEM) program. (See map.) The CASGEM program was authorized in 2009 with passage of SB 6 X7, establishing a statewide groundwater elevation monitoring program, but not individual groundwater well extraction monitoring, to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. In mid-December 2014, DWR concluded that the basin prioritization finalized in June 2014 under the CASGEM program will be the initial ranking for the SGMA. Local agencies can request that DWR revise the defined groundwater basin boundaries. DWR is required to adopt regulations by Jan. 1, 2016, for determining what information is necessary when filing such a request. Formation of a GSA and development of GSPs are encouraged – but not required – for those basins categorized in CASGEM as low or very low priority.

Adjudicated basins listed in the Act are not required to form a GSA or develop GSPs. They are required only to submit an annual report to DWR that contains much of the same information already required by the court.

A local agency can forego formation of a GSA and submit an alternative plan to DWR if it believes the alternative meets the objectives of the Act. If the agency believes an alternative will satisfy SGMA it has until Jan. 1, 2017 to submit the plan to DWR for review. In the SGMA such plans include existing local agency management that has been monitoring groundwater elevation since at least Jan. 1, 2010, any plans based on adjudication (the watermaster is required to submit the judgment to DWR by April 1, 2016), or an analysis that demonstrates the basin has operated within its sustainable yield for at least 10 years. DWR is required to assess the alternative to determine if it satisfies the objectives of the Act. If it does not, the local agency would be required to form a GSA and develop a GSP.

In most cases the SGMA does not delegate which local agency should be a GSA but instead leaves that decision to the local interests. The only exception is for special act districts formed through state law to manage groundwater in a local basin. The Act lists 15 special act districts that shall be the GSA in their service area boundaries, although those districts have the option to opt out if they choose.

If an area over a basin is not within the management area of a GSA, the local county will be presumed to be the GSA for that area unless it opts out. The county is required to notify DWR whether it will or will not be the GSA for the area.

## What Does a GSA Do?

A GSA is the primary agency responsible for achieving groundwater sustainability. A GSA is required to develop and implement a GSP that considers the interests of all beneficial uses and users of groundwater for high- and medium-priority basins. The SGMA allows a basin to have one or multiple GSPs, but requires development of a coordination agreement between GSAs if there are multiple GSPs.

The plan must include measurable objectives for the basin to achieve sustainability in the 20-year timeframe. The GSP also must include a physical description of the basin, including groundwater levels, quality, subsidence and groundwater-surface water interaction. DWR will review the plans and will have the power to request changes to a submitted plan. DWR must adopt regulations for how it is going to evaluate GSPs by June 1, 2016. GSAs will have until 2020 or 2022 to adopt a GSP, depending on whether the basin is in critical overdraft.

## What Basins are in Critical Overdraft?

Basins identified in Bulletin 118 as being "critically overdrafted" are supposed to adopt a management plan by 2020. Those that are not considered "critically overdrafted" have until 2022 to adopt a GSP.

When Bulletin 118 was first published in 1978 the definition for critical overdraft was: a basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social or economic impacts.

According to the 2003 update of Bulletin 118, "This update did not include similar direction from the Legislature, nor funding to undertake evaluation of the State's groundwater basins to determine whether they are in a state of overdraft." DWR officials are now evaluating how to determine overdraft in relation to the SGMA.

Meanwhile, the 11 basins originally identified in Bulletin 118 are: Chowchilla Basin, Cuyama Valley Basin, Eastern San Joaquin County Basin, Kaweah Basin, Kern County Basin, Kings Basin, Madera Basin, Pajaro Basin, Tulare Lake Basin, Tule Basin and Ventura Central Basin.

The SGMA gives GSAs numerous new tools and authorities to manage the groundwater and implement the objectives of the GSP. These include the authority to conduct investigations, determine the sustainable yield of a groundwater basin, measure and limit extraction, impose fees for groundwater management, and enforce the terms of a GSP. These authorities can be implemented by one or multiple GSAs. What authorities each GSA assumes will be one of the key decisions in forming a GSA.

The SGMA amends state planning and zoning law to require increased coordination between land use planning agencies and GSAs.

## Options for Governance

Multiple entities. Multiple uses. Multiple concerns. Those are just three of the big challenges related to governing a groundwater basin and how to form a GSA. The physical size of a basin can be another major issue.

In general there are three different models of governance: centralized, distributed, or a combination of the two.

### Centralized Governance

Under this model, one agency would assume all the responsibilities and authorities for the entire basin. However, it is likely that a centralized GSA would still need to coordinate with local land use and water agencies in the basin. These entities also would likely be members of the centralized GSA.

An existing local agency may assume this role or a new entity could be formed. As a centralized governing body, an existing agency (such as a water district) would likely need to modify current service area boundaries to cover the entire basin. A new centralized GSA could be formed through creation of a Joint Powers Agency or through new state legislation forming a special act district. A single, centralized GSA might be an efficient way to manage a basin and oversee the development

### Centralized GSA

- Covers entire basin
- Assumes all authorities and responsibilities
- New or existing agency

and management of a GSP. Data collection and management would fit within one model, relying on standard personnel and computer software.

However, there are downsides to a centralized agency model. Pursuing special legislation is time consuming and success is not predictable. Also existing agencies in many basins will be concerned about delegating all authority to one entity if it results in a local agency having less responsibility for groundwater management in its current service area. It also might be difficult for one agency to take on the task of developing a plan to manage a multi-use, multi-jurisdictional groundwater basin. Even if one agency were determined to be the GSA, it still would require collaboration among other agencies/entities in the basin to create the GSP.

### **Distributed Governance**

A distributed model would allow for the establishment of several GSAs covering the basin with the authorities for planning, implementation and monitoring all distributed among each GSA. This would allow many existing local agencies to retain existing authorities and assume new authorities for groundwater management in their existing service area and allow for more localized control. This option would require significant coordination among all the entities because each GSA would be developing its own GSP, implementing its GSP and monitoring its portion of the basin to ensure the basin as a whole meets the goal of sustainable yield. In the areas of the basin where a local agency does not assume the GSA responsibilities, the county would be the GSA, unless it opts out of this responsibility.



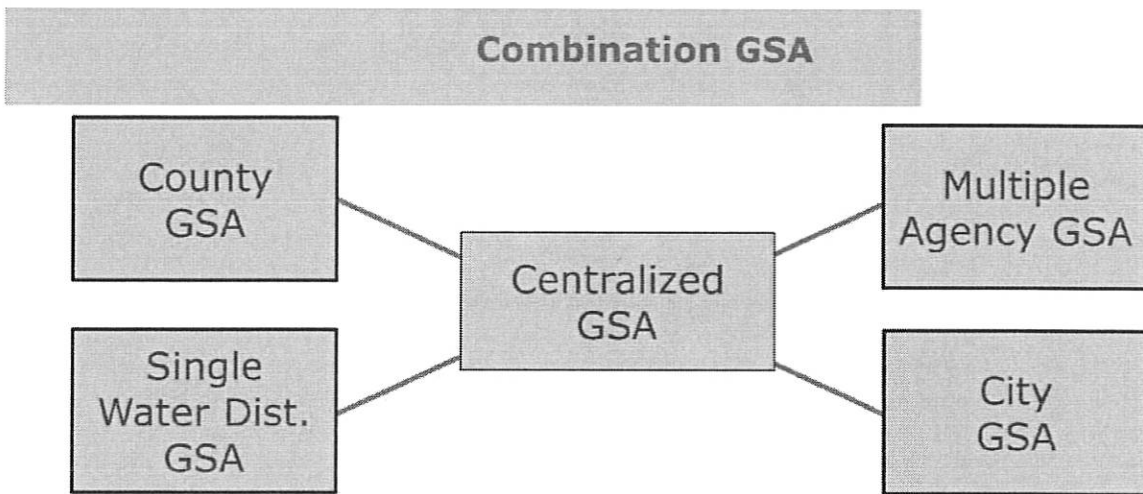
- Each GSA assumes all responsibilities for their service area
- Coordination Agreement required (MOU)



### Combination of centralized and distributed

A combination model centralizes some authorities and tasks and distributes others among multiple agencies. For example, one approach could place general tasks related to planning, public outreach and coordination with the centralized GSA, and the management and enforcement tasks split among multiple GSAs. This model offers maximum flexibility for distributing the authorities and responsibilities.

This model provides options for centralizing those tasks that may require a high level of coordination and distributing other tasks that may be more effectively implemented by an existing agency or JPA in their jurisdiction.



- Centralized GSA: assumes some shared responsibilities
- Multiple GSAs: assume remaining responsibilities