

PUBLIC WORKSHOP PROCEEDINGS

Implementing the Sustainable Groundwater Management Act (SGMA) in the Solano Subbasin



December 13, 2016	December 15, 2016	December 16, 2016
6:30-8:30PM	6:30-8:30PM	12:00-1:30PM
Rio Vista High School 410 South 4th Street Rio Vista, CA 94571 (~15 attendees)	Ulatis Community Center 1000 Ulatis Drive Vacaville, CA 95687 (~50 attendees)	UberConference Webinar Online Conference Virtual Option (~20 attendees)

PURPOSE

These workshops were intended primarily as an informational update for groundwater users and other local stakeholders on the Sustainable Groundwater Management Act (SGMA) regulations and implementation timeline, and local activities and recommendations for Groundwater Sustainability Agency (GSA) formation. Participants were also invited to ask questions, share concerns, and offer input on ways to reward positive groundwater management practices in the Subbasin in the local groundwater sustainability planning process.

OVERVIEW

Part 1: Presentations on the Local Water System and SGMA

a) **What is SGMA and what does it require?**

With Hong Lin/Mark Nordberg of the Department of Water Resources (DWR)

b) **What are we doing in the Solano Subbasin to implement SGMA?**

With Brooking Gatewood of Ag Innovations

Annotated presentation slides are available online [here](#).

Part 2: Question and Answer with Local Experts

During a facilitated, large-group conversation, participants were invited to ask questions about SGMA on a statewide and local level. Technical experts from the state Department of Water Resources (DWR) and local public agencies - Solano County, Solano Irrigation District, Solano County Water Agency, the Dixon Resource Conservation District, and Reclamation District 2068 – were available at the meetings to help answer participant questions. Participants were also asked to write down their questions on index cards. Information collected during these public workshops is summarized in this report.

Part 3: Recommendations for Managing Groundwater

After the information sharing portion of the meeting, participants dialogued, in small groups and with the facilitator, about ways the community and individual landowners are currently managing groundwater effectively that we might learn from, expand and incentivize. The input provided in this portion of the meeting is meant to inform early groundwater sustainability planning (GSP) discussions so that the Solano Subbasin can implement SGMA in a way that recognizes on-the-ground practices that positively impact groundwater conditions. Examples include practices that enhance recharge, percolation rates, or storage.

Acronyms

DWR	=	Department of Water Resources
GSA	=	Groundwater Sustainability Agency
GSP	=	Groundwater Sustainability Plan
JPA	=	Joint Powers Authority
MOU	=	Memorandum of Understanding
SCWA	=	Solano County Water Agency
SMA	=	Special Management Area

OUTCOMES

Question and Answer

SGMA, general

- **What is the purpose of the SGMA process?**
 - SGMA exists to ensure sustainable management of groundwater resources. There are six undesirable results that SGMA requires the GSA in each medium and high priority Subbasin to prevent: chronic lowering of groundwater levels; reduction of groundwater storage, degraded water quality; land subsidence that substantially interferes with surface land uses; sea water intrusion; and depletions of surface water that have adverse impacts on beneficial uses of surface water.
- **How will SGMA help prevent my neighbors from extracting at levels that negatively impact my extraction?**
 - SGMA requires the GSP to determine and maintain the sustainable yield of the Subbasin. The sustainable yield will be different in different parts of the Subbasin due to geologic and hydrologic differences. Under SGMA, a GSP must ensure that groundwater extraction does not lead to chronic lowering of groundwater levels.
- **How will SGMA affect the increasing demand on groundwater from new agricultural users?**
 - The advisory group is working to establish a GSA that will protect existing beneficial uses of groundwater and ensure fair allocation of groundwater resources into the future. The GSA will also consider creative solutions and projects to help ensure that water remains available in the Subbasin for agricultural, urban, and environmental uses.

Funding and Monitoring

- **Does state funding exist to help Subbasins implement SGMA?**
 - Yes. Prop 1 provides \$100 million in funding to support SGMA efforts across the state through facilitation and technical assistance. Ag Innovations' facilitation of public meetings has been supported by state grants from DWR, and the GSA will actively seek additional state funding for the GSP planning process. At this time, there is \$76 million left in the fund to support the entire state. Our region will be more likely to receive state funding if we come together to work collaboratively.

- **Will cities help pay for the GSA?**
 - Ultimately everyone who relies on groundwater will help pay for the GSA, which includes residents of cities.
- **Why are landowners responsible for groundwater fees?**
 - All groundwater pumpers using more than two acre-feet per year are subject to regulation under SGMA. The GSA working group is trying to find creative ways to keep costs down, including pursuing state funding and local agency funding, but it is likely that user fees will be needed to adequately fund the actions necessary for SGMA compliance.
- **How will fees for landowners be determined?**
 - The GSA will conduct a study to determine appropriate fee structures. The study will include a public input period, as well as input from landowners and agencies on the GSA board.
- **When will landowner fees be put in place?**
 - The advisory group estimates that fees would not be imposed for another three to five years. The GSA will conduct research and receive public input into the fee structures before they are enacted.
- **Is there funding for scientific and geologic testing?**
 - SGMA requires that GSPs describe any actions that must be taken to achieve sustainability. This will require the GSA to gain a better understanding of existing local conditions by researching and assessing conditions in the Subbasin. These costs will be incurred in the GSP planning phase. The GSA Advisory Group anticipates that some studies will be needed to better understand groundwater in the Subbasin for topics such the relationships between surface wells and deep wells. We have also heard from the public of a need to better understand groundwater geology and conditions in the Montezuma Hills area. There may be some creative opportunities to compile some of the needed information from existing data sources – for example, the County of Solano is conducting a study that focuses on the relationship between land use and crop patterns to determine water use and recharge.
- **If landowners are metered, will other entities be metered as well?**
 - Metering may not be necessary for the Solano Subbasin. Much of groundwater delivered by local agencies is already metered, and other data sources (such as cropping pattern data) provide solid estimates of groundwater use around the Subbasin. If additional metering is necessary, the likely first step would be voluntary metering. *If* metering beyond voluntary becomes necessary, all groundwater users - landowners, cities, water purveyors, golf courses, etcetera - would be subject to metering.
- **When does funding for Ag Innovations terminate?**
 - The current contract with Ag Innovations terminates in 2018. SCWA is willing to continue to fund Ag Innovations further to ensure continued public involvement in the process.

Recharge

- **What is a recharge credit?**
 - The advisory group is considering a variety of recharge credit ideas. For example, individuals who flood fields to support groundwater recharge may be credited by paying fewer fees. Members of the advisory group have uncovered grants for studying recharge options and efficiencies, and at least one application is in development to study and quantify the benefits of various farm practices for groundwater recharge. This research may inform GSP development. The Subbasin also has

some existing programs with recharge benefits, such as restoration mulching projects along Putah Creek to increase the organic matter in soils and encourage water filtration. More information on statewide research can be found in the forthcoming DWR report “Water Available for Recharge”, which we will share via the Solano SGMA listserv when it becomes available.

- **Does the Sacramento River recharge the Subbasin and do Sacramento River water users recharge the Subbasin?**
 - Yes, water from the Sacramento River does contribute to recharge in the Solano Subbasin. UC Davis is conducting a study to determine the recharge effects of broadening the Yolo bypass, however, this will not have much of an impact in the Solano Subbasin, as Sacramento River recharge occurs more than a hundred miles upstream on the west side of the valley.
- **How can the benefit of flood irrigation be quantified against the benefit of efficient drip irrigation?** Some farming practices are efficient, but reduce the recharge potential.
 - The advisory group is looking at examples from around the state to gather information about best farming practices for recharge potential and quantifying the benefits of the various methods. The reality is that the science is still young in this area and there is a lot of research to be done to address these kinds of questions.
- **Does the recharge have to equal the extraction?**
 - Not necessarily. SGMA requires GSAs to ensure balanced and sustainable use of groundwater resources in each Subbasin in California. In some regions, this may mean that recharge will need to exceed extraction, but in other regions, extraction may be able to sustainably exceed recharge. DWR will compare GSPs covering adjacent areas to ensure that these plans work together to maintain sustainability throughout the state.
- **How will projects that are needed for SGMA compliance be evaluated for environmental impacts?**
 - SGMA explicitly exempts Groundwater Sustainability *Plans* from evaluation under the California Environmental Quality Act (CEQA), but GSAs will need to evaluate, and mitigate, any environmental impacts on any *projects* that the GSA determines are required to reach sustainability.
- Current and planned state programs involve diverting surface water to Southern California, which could affect the cost of SGMA implementation and recharge in local basins. **What is the state doing about mitigation costs for recharge in areas impacted by water diversions?**
 - Locally, the Solano Subbasin is a large aquifer, and most of its recharge comes from local sources. Water from the coastal mountains feeds the Putah Fan and the deeper Tahema Formation. Runoff from local creeks and surface water applied on agricultural lands contributes to this recharge. Some surface water from the Delta is applied on land overlying the Solano Subbasin, and this surface water may also provide some recharge to the subbasin. If future export projects reduce the ability of local diverters to deliver water from the Delta into the Solano Subbasin, there may be some impacts. Because it is not yet clear how export projects such as the proposed Delta tunnels will be operated, it is difficult to determine how they may affect this local recharge.
 - *State-level response:* DWR doesn’t have an answer to that question right now, but it is one that may be considered as we look forward towards the implementation phase of SGMA. The reality is that the majority of the water falls in the northern part of the state and is also needed for agricultural and municipal purposes in the southern part of the state. GSAs must develop water

budgets on a basin-wide scale for their GSPs, and that information could be factored into a statewide perspective. There is a report coming out soon, *“Water Available for the Replenishment of Groundwater”*, which will discuss a lot of the way water works in California, where and how it’s accounted for, and where it’s available for groundwater basin replenishment. This report, which will be share via the Solano SGMA litserv when it becomes available, might address some parts of this question. DWR also has a requirement to publish best management practices by the end of the year, and ‘water budgets’ is one of the BMP topics. Documents and publications from DWR are a helpful place to start to determine overdraft and recharge levels.

Governance

- **Is there going to be a LAFCO or other initiative to put the GSA structure in place?**
 - There will be no LAFCO process for initial formation of the GSA. The advisory group is recommending a Joint Powers Authority structure to create a new agency to serve as the GSA for the Solano Subbasin. The proposed JPA would not be a new organization, but rather a legal agreement between 16 local GSA-eligible agencies and stakeholder representatives. The advisory group is recommending this structure because it allows for non-agency individuals to be voting members of the GSA board. Solano County Water Agency will not have voting power but will provide administrative support for the GSA.
- **Will the Special Management Areas (SMAs) be identified in the GSP?**
 - Most likely, yes. Special Management Areas will be designed to allow local areas of the County to manage their own local groundwater issues. However, the advisory group’s current recommendations for SMAs are simply draft possibilities for SMA boundaries and composition. The advisory group expects that there will be a publicly informed process that takes place over the next two to five years to settle on the precise boundaries and composition of Special Management Areas (SMAs).
- **Is the agricultural representation in the proposed GSA Board sufficient?** Two public agricultural community votes may not be seen as proportional representation, since the burden for recharge will be their responsibility.
 - The advisory group, which itself has included active participation from representatives of the agricultural community and much deliberation on this point, has worked to propose an equitable balance between interests on the GSA board, while also considering the technical, financial, and operational responsibilities of board membership. Some of the representatives – Dixon RCD, Solano RCD, the two County Supervisors, and board members from member agencies such as the Maine Prairie Water District – also directly represent agricultural interests. Our region is one of the only Subbasins in the state to recommend direct board-level voting representation by agricultural users. More commonly, an Ag Commissioner is appointed, or an Ag Advisory Committee.

Public Comments

- *Multiple participants indicated the need for funding for geologic tests to better understand the hydrology in the various regions of the Subbasin. Many participants felt that they could not make informed decisions without information about how the water system functions.*
- *Multiple participants indicated that most wine grapes, almonds and other crops that demand water are exported.*
- Some state programs are currently diverting water from the Solano Subbasin to southern California. If people in the Solano Subbasin work hard to meet the requirements of SGMA, we need an assurance that the water we save won't be sent to another region that didn't work hard to meet the requirements of SGMA. There is some distrust locally of DWR and state programs and intentions.
 - *Multiple participants pointed out the dangers of salt-water intrusion: if diversion takes place, then salinity levels will increase in the Sacramento River, which will negatively impact water salinity and agriculture in Solano County.*
 - *Some also expressed concern about deportation of surface or groundwater by local water agencies instead of leaving water in the Solano Subbasin.*
- DWR is requiring locals to manage groundwater, without giving locals the necessary tools. We need more groundwater storage capabilities.
- Businesses and individuals are extracting water too quickly and there is a lack of public education regarding resource management and sustainability.
- There needs to be equal accountability between urban users and agricultural users.
- Solano Irrigation District is not a water agency that looks out for agriculture on the GSA board.
- Urban water use should be considered as a "permanent crop" because it uses as much water as agriculture.

Recommendations for Managing Groundwater

- Instead of developing and paving land, maintaining open land could be credited.
- When developing land, use porous concrete. Future requirements for development may require porous concrete and other measures to support recharge.
- Credit landowners for participating in research and allowing them to have their wells tapped for data collection.
- Reduce stormwater runoff and recycle stormwater back into the system by leaving fields to fallow after harvest.
 - Re-use or recharge sewage treatment plant water.
- Utilize compost in agricultural land and rangeland to increase organic matter and increase percolation.
- Research the impacts of bio-solids on soil filtration.
- If water is exported, there should be a credit system or funding to mitigate that water loss.
- Flood control can play a role by determining best practices for storing flood water to be used during drier seasons.
 - Divert stormwater on agricultural land for infiltration and recharge.
 - Work on permits allowing diversion of flood water from Putah Creek and other creeks for groundwater recharge.

- Old wells can be converted into injection wells. This idea may require some technical engineering because extraction wells and injection wells are designed differently.
- Land should never be left bare, even in farming, it should at least be planted with a cover crop.
- State funding for basins and other structures to catch excess water on farms and other landowners sites.
- Use existing drainage facilities to move water from areas of excess to drier areas.
- Stop utilizing canals, ditches and other methods of instant capture.
- Recognize that groundwater and surface water are intrinsically connected and need to be managed together.

For further information on SGMA, local conditions, Frequently Asked Questions and prior public input workshop proceedings, visit:

<http://scwa2.com/sgma>