

Solano Subbasin Groundwater Sustainability Virtual Town Hall Meeting Summary



June 1, 2023 | Held virtually via Zoom, 5:30 pm - 7:00 pm Pacific Time

Objectives and Background

1. Provide an overview of the State of the Solano Subbasin
2. Share context - the Sustainable Groundwater Management Act (SGMA), the Solano Subbasin Groundwater Sustainability Plan (GSP) and associated work toward Projects and Management Actions (PMAs)
3. Share information about related irrigated lands and water conservation programs
4. Answer questions and share opportunities to get involved

Virtual Town Hall Agenda and Recording

View the Town Hall agenda [here](#).

View the video recording of the Town Hall [here](#).

Participation Summary

Registrations: 112

Participants: 67

Outreach Summary

The Solano Subbasin Virtual Town Hall was announced in a number of forums to raise awareness of the event and encourage participation by community members. A newsletter and two e-blasts went out to a listserv of 557 subscribers. Event flyers were distributed to community partners including the Vacaville Chamber of Commerce, Dixon Resource Conservation District (RCD), and Solano Groundwater Sustainability Agency (GSA) Collaborative for distribution to their networks. The event was created on Facebook and posted for local groups including Dixon 411 and the Rio Vista Community Bulletin.

Participant Poll Responses

Virtual Town Hall participants were asked to respond to four poll questions via Zoom. Polls were offered in both English and Spanish. The poll questions asked how many Town Halls they have attended, how participants heard about the Town Hall, if they had seen or commented on the Solano Subbasin GSP or the most recent Annual Report, and if they are a landowner in the Solano Subbasin, ways they are adjusting their practices following the wet winter.

Presentation Highlights

Below are highlights from each section of the Virtual Town Hall.

Welcome, Introductions, and Meeting Overview

Chris Lee, Solano County Water Agency and the Solano Subbasin GSA representative, welcomed participants on behalf of the Solano Subbasin GSA and the other GSAs who worked to develop the Solano Subbasin Groundwater Sustainability Plan (GSP). The meeting was simulcast in Spanish and recorded.

Jenn Fox, Ag Innovations and the Solano Subbasin Community Engagement Team, thanked everyone for joining. She emphasized the importance of community involvement and invited those on the call to introduce themselves as well as where they lived and worked using the chat feature. Participants included from local farms, local landowners, and staff at Resource Conservation Districts, and public agencies. The meeting included presentations on implementation of the Sustainable Groundwater Management Act in the Solano Subbasin, an overview of current groundwater and surface water conditions in the Solano

Subbasin, updates on implementation activities and related conservation efforts, and ways to stay involved. The meeting also included significant time for question/answer.

Throughout the meeting, links to information were shared via the chat, including the [2022 Annual Report](#), the [State of the Subbasin](#), [SolanoGSP.com](#) and its subpages, which provide information about the GSP.

Sustainable Groundwater Management Act and the Solano Subbasin

Chris Lee provided an overview of the Sustainable Groundwater Management Act (SGMA), including the requirement to create a GSP in the Solano Subbasin. Chris described the Solano Subbasin's geographic boundaries and the five Groundwater Sustainability Agencies (GSAs) that worked together to create the GSP: City of Vacaville GSA, Sacramento County GSA, Solano Irrigation District (SID) GSA, Solano Subbasin GSA, and Northern Delta GSA.

The GSP was submitted to the Department of Water Resources (DWR) in 2022. DWR has two years to review and evaluate the GSP. Chris shared the timeline for implementation of the GSP, which is a long term process over the next twenty years and beyond. Implementation activities include monitoring and data management, outreach, annual reports and five-year updates, regional coordination, exploring grant opportunities, and project and management actions.

State of the Solano Subbasin

Nick Watterson, Principal Hydrogeologist at Luhdorff & Scalmanini Consulting Engineers (LSCE), gave an overview of current hydrologic conditions in the Subbasin. The Annual Report for water year 2022 summarizes groundwater conditions and activities in the Subbasin from October 2021 through September 2022; and was submitted to DWR in April 2023.

The primary sources of water supply in the Solano Subbasin are surface water, both from the Delta and the Solano Project from Lake Berryessa, and groundwater. In 2022, surface water was about two thirds and groundwater comprised about one third of the total water used in the Subbasin. This is consistent with the historical average. Lake Berryessa's surface water storage declined during the drought from 2021-2022 but has rebounded considerably over the last winter. Pumping increased over the last several dry years. While groundwater pumping will vary from year to year, the Subbasin is working to buffer periods of higher need with periods of recovery through groundwater recharge.

Nick noted that there are many activities happening with multiple entities to support groundwater sustainability. Main areas of work include expanded monitoring and outreach, implementation grant funding, and multi-benefit project planning to enhance recharge and water supplies, mitigate flooding, and buffer future dry periods.

Most multi-benefit projects aim to implement groundwater management and stormwater management in the Northwest Focus Area. The Solano Collaborative is coordinating with landowners and other water managers that are interested in implementing projects and management actions. There are multiple monitoring wells in the Northwest Focus Area tracking early data showing increased water groundwater levels over the last winter.

Hydrology and SGMA Discussion

Following these presentations, participants were invited to ask questions via the Zoom Question/Answer function. Jenn Fox, Ag Innovations, and the Solano Subbasin Community Engagement Team, moderated a discussion about the hydrology and SGMA in the Subbasin. Below is a summary of answers provided live, followed by written answers.

Question: What percentage of the [surface water] storage is from Berryessa vs the delta?

A: On average about 60% of the surface water is from the Delta and about 40% is from Lake Berryessa. Surface water as a whole comprises about 70% of water use in the Subbasin.

Question: On the trends in water storage slide, how was groundwater determined ? Covering what geographical area?

A: There are multiple ways that we estimate the changes in groundwater storage: a groundwater model we've constructed to best represent conditions in the Subbasin. This includes calculating all inflows coming into the Subbasin and outflows leaving the Subbasin. We also look at water levels in wells and generate a representation of what the water table looks like that can be compared over time. Much of the calculations of groundwater utilization are estimates. There are well meters in urban areas but not in residential or agricultural areas, which can pose a challenge when calculating groundwater use estimates.

Question: How do you facilitate groundwater monitoring?

A: Most groundwater monitoring occurs with wells, either through measuring water levels or testing groundwater samples. If you are interested in having a well you own monitored, we can discuss the potential for that further. Please let me know if this is not answering your question.

Question: How long does it take for water from a wet year to recharge the sub basin?

A: It depends on location and proximity to surface water ways. There are two different aquifers in the Subbasin: one is deeper and takes a much longer time to recharge. The other is shallower and is where most of the groundwater use comes from. We see influence on that shallow aquifer more quickly. It also depends on proximity to surface water bodies. Surface water is a source of recharge to the groundwater system. In wells that are very close to surface water ways we can see recharge almost simultaneously, but the deeper you go in the aquifer the longer it takes to recharge.

Question: Has there been any indication from the DWR's actions on other areas' [Groundwater Sustainability Plan] GSPs whether Solano's plan will be acceptable?

A: We are waiting but based on how DWR has responded on some of the Plans it has already reviewed and accepted, we think we are in good shape in Solano Subbasin. Our technical team has worked on other Plans that have already been accepted that have used a similar model. We have tried to identify and explain things according to the SGMA regulations based on the information that came out first in DWR's review of GSPs in critically overdrafted subbasins, including the sustainability criteria, monitoring and tracking, and data gaps to be filled in the future.

Question: Is there water exchange between the aquifers comprising Solano Basin and neighboring basins?

A: Yes, groundwater flows in both directions across basin boundaries to and from neighboring basins.

Question: you spoke of two depths for the groundwater recharge. What depths are those in feet?

A: The two principal aquifers exist in the Subbasin. The shallower (Alluvial Aquifer/Upper Tehama zone) is where most groundwater production occurs. Very generally this shallower aquifer is typically at depths between 50-500 ft. There is a deeper aquifer (Basal Tehama zone) that typically is at depths greater than 1000 feet.

Related Efforts in the Solano Subbasin

Related activities support water management and water conservation in the Subbasin. Presentations included updates from the Dixon Resource Conservation District (RCD), Solano County, Solano Irrigation District GSA, and City of Vacaville GSA.

Irrigated Lands Regulatory Program

Martha McKeen, Program Coordinator, Dixon RCD

Solano RCD and Dixon RCD assist growers through the Irrigated Lands Regulatory Program (ILRP). ILRP aims to prevent agricultural runoff (such as fertilizers, pesticides, sediment from irrigated fields) from impairing surface and groundwater. For more information, visit: <http://www.dixonrcd.org/irrigated-lands>.

One Water Management Framework

Misty Kaltreider, Water and Natural Resources Program Manager, Solano County

One Water brings together entities throughout Solano County to coordinate on water management. This is an integrated approach across various water sectors to develop a framework for the county. Over the next year and a half, Solano County will be collaborating with agencies and municipalities throughout the county to create the framework which will develop nature-based solutions to various water challenges facing the county. Email OneWater@Solanocounty.com for more information about One Water.

Solano Irrigation District GSA

Cary Keaton, General Manager, Solano Irrigation District and SID GSA representative

Solano Irrigation District typically pumps between 8,000 and 10,000 acre feet for agricultural purposes per year. This year, due to the abundance of surface water from rainfall, SID was able to reduce that to about 2,000 acre feet. A public water system in the Northwest Focus Area of the Subbasin and near Lake Solano has been on the decline for many years. This is the only water supply for 37 SID customers. SID received an EPA grant of \$2.8 million to drill a second well to help support and sustain that water system.

City of Vacaville GSA

Justen Cole, Director of Utilities, City of Vacaville and City of Vacaville GSA representative

The City of Vacaville has a recycled water program, which is used to repurpose water that is being discharged into Alamo Creek, which feeds into the Delta. The goals of the program are to diversify the city's water portfolio, offset groundwater pumping, and maximize the return on investment into the water treatment facility. Recycled water uses include: downstream diversions, industrial use, agricultural uses, and urban irrigation. Other uses that require more treatment and technology include indirect potable reuse (injecting it into groundwater wells), direct potable reuse, and environmental habitat for instream augmentation. The program is currently in the preliminary planning phase. A recommended recycled water portfolio - which will determine the scope and size of the project - is being developed.

Funding

Chris Lee gave an overview of funding for GSP implementation. Under SGMA, local agencies take on the burden of paying for GSP implementation. Each of the GSAs in the Subbasin pay their share. The Solano Subbasin GSA developed a charge study to explore ways to pay for the GSP, which informed a Proposition 218 process last year. Landowners within the GSA are paying a flat rate for SGMA compliance, which will remain in effect for the next five years. Fortunately, the Subbasin has been preliminarily awarded a grant from DWR through Proposition 68 for about \$4.4 million for GSP implementation costs.

Question and Answer Session

Throughout the meeting, participants were encouraged to share questions and comments. Jenn Fox, Ag Innovations, and the Solano Subbasin Community Engagement Team, moderated a question and answer session. The questions and comments below are verbatim questions as typed by individual participants; followed by a summary of answers provided live and answers shared with all via the Zoom Q/A feature.

Question: Why were the \$1.7 million monies used up over the 5 years to formulate this plan and administration? Was there a forward projection used for these monies that could have included and offset any property owner's fees? Are there any funds/grants that are being researched to exclude any and all property owner's fees?

A: The Subbasin has been preliminarily awarded a grant they applied for from DWR through Proposition 68 for about \$4.4 million for GSP implementation costs. Once the final announcement from DWR is made and a grant agreement is in place, we're going to reexamine the flat rate charge we have for the Solano Subbasin GSA and look for ways to defray local costs. All five of the GSAs contribute funds to pay for implementation.

Question: Please give us a profile of water users you are hoping to have finance your efforts? Categories and descriptions of the various water users.

A: The Solano Subbasin GSA levies a flat rate charge for all landowners within the geographic boundaries of the Solano Subbasin GSA. This is a flat rate per acre owned by each landowner.

Question: Is there any effort underway to reduce building growth in Vacaville and the Solano sub basin area?

A: Solano County has a very robust General Plan that really encourages agriculture and encourages growth in the cities and urban urban areas only. As part of One Water we want to explore multi-benefit projects or management actions to support the General Plan moving forward. The City of Vacaville Board of Supervisors has also adopted a General Plan for improved development in Vacaville. There isn't any action to actively stop development. There is a plan in place for development approval that includes the areas just East of Leisure Town Road.

Question: When might we start DOING something in the realm of projects and management actions? (PMA's). Seems like time's a wastin' - as well as precious water that could be banked in our aquifer and maybe - over time - even build those reserves instead of just sustaining them.

A: Submitting the GSP was the first step. The next step is recognizing the projects and management actions we can take in the Subbasin. The Recycled Water Program for the City of Vacaville is one example. Is currently in the preliminary planning process, and we've identified potential customers; it won't happen overnight.

We are also looking at groundwater recharge through stormwater. Many activities are getting started. It will take time to implement projects. Projects depend on funding coming through. The Proposition 68 grant application to DWR includes support for projects and management actions under consideration.

Another example is recent coordination with Sustainable Conservation, which is working as a contractor through DWR. Sustainable Conservation is exploring the value of recharge along the floodplain and are actively engaging with landowners where monitoring has been taking place over a period of time. Sustainable Conservation is submitting a final paper to DWR, which will support exploration of potential activities to augment recharge in the Subbasin.

Question: Why are we closing the Siskiyou dam? Can we build more dams and reservoirs to store water during drought years?

A: The State is looking at possibilities of reoperation of current infrastructure, as well as other infrastructure that would support advanced planning for extended drought conditions and the variability of the climate extremes. With the Governor's recent Executive Orders, the State aims to

encourage recharge and expedite permitting so that recharge projects can be implemented more quickly. DWR is looking at ways the State can be more resilient to weather extremes in the future.

Question: This is a done deal? We will be monitored on what we do use from our own Wells? We will be paying for our water even when we did not sign up for the previously water district out in English Hills. This angers me

A: Unfunded mandates are unfortunate. Protecting our agricultural communities and providing drinking water are very high priorities. To do this, we need to make sure that we are meeting all State mandates. The Groundwater Sustainability Plan is one of those ways that we maintain local control. It's unfortunate that we have to pay for it locally, but if the State did come in, they would be recouping their costs as well, and likely making you pay more. We're trying to avoid that and maintain local control. And we are trying to protect water resources so that water is available for future generations.

Next Steps and Ways to Stay Involved

Suzannah Sosman, Ag Innovations and the Solano Subbasin Community Engagement Team, extended appreciation to all participants for their interest and engagement. Engagement is critical throughout GSP implementation. She encouraged everyone to visit the [SolanoGSP.org](https://solanogsp.org) website, and links to the GSP, Annual Reports and funding information, previous meeting notes and recordings, sign up for the GSP newsletter, information on upcoming events, and Frequently Asked Questions. She shared additional ways to get involved:

- Attend an event in partnership with a local Resource Conservation District
- Attend individual GSA Board Meetings
- Visit solanogsp.com, join the Solano GSP newsletter list, and stay engaged
- Review the GSP at: <https://sgma.water.ca.gov/portal/gsp/preview/117>
- Fill out the feedback survey which was shared with Virtual Town Hall participants
- Visit <https://groundwaterguide.com/>, which also includes information in Spanish.
- For more questions about outreach, contact Guadalupe@aginnovations.org