Solano Subbasin Groundwater Sustainability Virtual Town Hall Meeting Summary

May 19, 2025 | 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. Interactive discussion about groundwater recharge
4. Answer questions and share opportunities to get involved

Virtual Town Hall Agenda and Presentation

View the Town Hall agenda in English and Spanish here.
View the presentation slides in English and Spanish here.

Visit our Events Archive at Solanogsp.com to access all materials from this event and past town halls.

Participation Summary

Registrations: 62
Participants: 45

Outreach Summary

The Solano Subbasin Virtual Town Hall was publicized in multiple forums to raise awareness of the event and encourage community members to participate. A newsletter and two e-blasts went out to a listserv of 627 subscribers. The event was shared on Facebook via local groups, including Dixon 411 and the Rio Vista Community Bulletin. It was also shared by community-based organizations such as the Dixon Resource Conservation District (RCD) and the Solano Farm Bureau.

Participant Poll

Virtual Town Hall participants were asked to respond to five poll questions via Zoom polls in both English and Spanish. The poll asked how many Town Halls participants have attended; how participants heard about the Town Hall; if they know what SGMA stands for (which was asked to remind speakers to not use acronyms); if they have seen the Solano Subbasin Groundwater Sustainability Plan or the most recent Annual Report; and if they are landowners in the Solano County Subbasin, to share something about groundwater recharge practices they are interested in and/or practicing.

Presentation Highlights

Below are highlights from each section of the Virtual Town Hall. Throughout the meeting, links to information were shared via the chat, including more information on SGMA, Solano GSP, the 2024 Annual Report, State of the Subbasin Infographic, well inventory, and SolanoGSP.com

Welcome, Introductions, and Meeting Overview

Alex Rabidoux, Assistant General Manager at Solano County Water Agency and with Solano Subbasin GSA, welcomed participants on behalf of the Solano Subbasin GSA and the other GSAs who worked to develop the Solano Subbasin GSP. The meeting was simulcast in Spanish and recorded.

Jenn Fox, Senior Facilitator at Ag Innovations, thanked everyone for joining. She emphasized the importance of community involvement and invited those on the call to use the chat to introduce themselves, share where they live or farm, and how they heard about the Virtual Town Hall. Participants included local growers and landowners, staff at RCDs, and public agencies. The meeting included

presentations on the implementation of the Sustainable Groundwater Management Act in the Solano Subbasin, an overview of current groundwater and surface water conditions, a panel discussion on multibenefit projects, updates on implementation activities and related conservation efforts, and ways to stay involved. The meeting also included significant time for questions and answers.

Sustainable Groundwater Management Act and the Solano Subbasin

Alex provided an overview of SGMA, including the requirement to create a GSP in the Solano Subbasin. Alex described the Solano Subbasin's geographic boundaries. GSAs that worked together on the GSP include: reclamation districts, the City of Vacaville GSA, Sacramento County GSA, Solano Irrigation District (SID) GSA, Solano Subbasin GSA, and Northern Delta GSA.

Alex shared a timeline: the GSP was submitted to the Department of Water Resources (DWR) in 2022, and DWR approved the GSP in January 2024. He described long-term goals and implementation activities, which include outreach, monitoring, and data management, annual reports, and a comprehensive update every five years, regional coordination, and work on Projects and Management Actions (PMAs).

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 2024 summarizes groundwater conditions and activities in the Subbasin from October 2023 through September 2024 and was submitted to DWR in April 2025. The primary sources of water supply in the Solano Subbasin are surface water (from the Solano Project and the Delta) and groundwater. In 2024, surface water was about two-thirds, and groundwater comprised about one-third of the total water used in the Subbasin

Nick shared that weather conditions during the water year, supply from a precipitation standpoint, and demand drivers, such as temperature, relate to groundwater use. Lake Berryessa's storage capacity is about 1.6 million acre-feet. The lake was at capacity and spilling out for about 90 days this year. Since 1991, the Subbasin has had relatively stable groundwater levels with a slight increase in storage. In 2024, groundwater pumping was ~150,000 acre-feet, similar to the previous water year. This is largely due to the wet year, as increased precipitation reduces demand for groundwater supplies.

Nick shared a graphic of wells monitored in the subbasin, including Representative Monitoring Site (RMS) wells tracked with specific metrics defined in the GSP. Nick described that during the water year 2024, all but three of the wells in the RMS network had increases in groundwater levels or no significant change. Trends over the last 20 years show some slightly declining groundwater levels in the Northwest focus area. Given these trends, more attention and implementation activities are on the Northwest focus area. In other parts of the subbasin, there are very stable groundwater levels. Nick also noted that the Solano Project continues to play an important role in water use and levels in Solano County.

Water quality monitoring continues to focus on several key constituents, including nitrate, arsenic, and chromium-6, which are relevant to drinking water quality. Nitrate, often originating from septic systems, fertilizers, or agricultural activities, is tracked primarily through data collected from wells under the Irrigated Lands Regulatory Program. Nick shared maps, where red markers indicated concentrations exceeding drinking water standards, mostly in agricultural or rural residential areas. For arsenic, a naturally occurring constituent in groundwater, available data is limited to public supply wells, and elevated levels are mainly found in the southern part of the subbasin. The drinking water standard was recently lowered for Chromium-6, another naturally occurring constituent. Elevated concentrations are seen in areas such as Dixon and Vacaville, typically at greater depths, posing particular challenges for urban water providers relying on deep groundwater sources. The Groundwater Sustainability Plan references some of these issues, alongside other regulatory programs that focus on water quality.

As part of the GSP implementation, significant efforts have been made to improve understanding of which areas of the subbasin rely on groundwater versus surface water. While some of this information was available during GSP development, further refinement was identified as a key need. With support from a DWR GSP Implementation Grant, this work has been carried out through a highly collaborative process involving stakeholders such as Solano and Sacramento County RCDs and the Irrigated Lands Regulatory Program. This collaboration has led to more well monitoring locations, up-to-date data, and processes to maintain data quality and consistency in coordination with county agencies.

Ongoing efforts focus on enhancing groundwater recharge and building long-term resilience in the face of future climate uncertainty. Emphasis is being placed on multi-benefit projects that not only support groundwater replenishment but also provide additional advantages, such as stormwater management and habitat improvement. While current groundwater conditions remain strong, proactive planning and investment are necessary to maintain sustainability over time.

Discussion

Jenn described that there would be multiple question-and-answer (Q/A) opportunities. She invited participants to submit questions via the Zoom Q/A feature. She also asked panelists questions that had come in through the chat feature.

Question: How are groundwater trends in the Solano Subbasin compared to other areas?
Answer: In comparison to other regions, groundwater conditions in the Solano Subbasin—and the Sacramento Valley more broadly—are generally in much better shape than those in the San Joaquin Valley, which faces more severe overdraft issues. While some subbasins in the Sacramento Valley may still require work to achieve or maintain sustainability, they are not experiencing the same level of critical depletion. That said, increasing pressure on water resources remains a concern, and the focus is not only on current and past conditions but also on ensuring the region is well-prepared to adapt to future challenges and long-term sustainability needs.

Question: The state of California has a stricter standard than the national standard for Hexavalent Chromium. Can you say more?
Answer: The difference between the federal and state standards for Hexavalent Chromium (Chromium-6) largely stems from health-based considerations set by regulatory agencies. California's more stringent standard of 10 parts per billion was initially introduced several years ago, later paused due to concerns about the lack of economic analysis, and has since been reinstated. This lower threshold affects a significant number of water systems statewide, not just those in the Solano Subbasin. The presence of Chromium-6 in local groundwater is largely due to regional geology, and several nearby communities, including Vacaville, Davis, and Winters, are facing challenges in meeting the stricter state standard.

Panel on Groundwater Recharge and Sustainability

Jenn introduced the panelists, who would describe current multibenefit projects. Jenn summarized that the 2024 Town Hall included a panel featuring Austin Miller, who discussed the work in the Sacramento area to provide recycled water for agricultural and habitat conservation purposes; and Kelly Huff and Tommy Bottoms discussed recharge and cover cropping efforts.

Alex described that groundwater projects can provide multiple benefits, including recharging during dry years, reducing flooding and wet periods, improving habitat, and improving soil health. Alex highlighted collaborative efforts with to explore groundwater sustainability solutions in the Northwest Focus Area, which lacks surface water supply. One key strategy being considered is stormwater reuse, taking advantage of runoff that flows roughly eastward and often contributes to flooding. The group is also exploring ways to optimize existing infrastructure to support groundwater recharge.

Amy King from Solano RCD shared an overview of collaborative efforts to address water movement challenges while enhancing groundwater recharge and building water supply resilience. Strategies under

consideration include revegetating the upper watershed, particularly areas impacted by the LNU fire, as well as installing detention basins, repurposing tailwater return systems, and expanding vegetative cover to slow stormwater runoff and improve infiltration. The focus is on using existing infrastructure where possible and maximizing co-benefits such as improved soil health, carbon sequestration, wildlife habitat, and livestock shade. Recent progress includes securing funding through the Healthy Soils Program, led by the Solano County Farm Bureau, to implement these practices on productive lands.

Spencer Bei emphasized the importance of telling the story of the subbasin to foster understanding and synergy among diverse groups within the subbasin. He highlighted how collaborative efforts—ranging from city coordination to agricultural practices—contribute to sustainable water use. Spencer praised the foresight of previous generations in developing the Lake Berryessa watershed and dam, which provides critical surface water that reduces reliance on deep well pumping. He also emphasized the importance of efficient water reuse and maintaining vegetation on the land throughout the year, either through permanent pasture or cover crops to promote infiltration, reduce runoff, and enhance soil health. Spencer highlighted the importance of storytelling about what's happening in the subbasin.

Discussion

Jenn directed participants' questions to the panel:

Question: What are the latest developments on the State Water Board's effort to require unimpaired flows in Putah Creek and maintenance of a minimum pool level in Lake Berryessa, and the potential effects on surface water availability?

Answer: The State Water Board's proposal to require 55% of unimpaired flows from rivers like Putah Creek into the Bay-Delta has raised serious concerns among Solano County water agencies. Local agencies and elected officials have been actively engaged and highlighted potential impacts on urban and agricultural water users. The community has participated in numerous meetings, submitted formal letters, and emphasized the region's successful water management practices under the Putah Creek Accord, now approaching its 25th anniversary. While communication from the State has been quiet recently, an update is expected later this year. Solano agencies remain vigilant, and there is support for alternatives, such as the Healthy Rivers and Landscapes program, which aims to fund science and monitoring.

Question: What's going on with subsidence in Yolo County?

Answer: The person who asked the question was referred to Yolo experts for detailed information on subsidence in Yolo County. LSCE is not aware of major subsidence concerns in Yolo County; however, all basins experience some natural, seasonal ground movement due to fluctuations in groundwater levels. Solano Subbasin benefits from high-precision GPS monitoring and coordinating with Yolo Subbasin.

Question: Can you share another example of multibenefit projects?

Answers: Spencer shared that farmers in the region are constantly balancing sustainability with economic viability; the two must go hand-in-hand. In addition to cover crops, the strategic use of crop rotation involves choosing crops such as corn, wheat, hay, pasture, or alfalfa based on soil health benefits and market conditions. In orchards, growers may manage the "middles" (spaces between tree rows) by allowing vegetation to grow, which helps with winter rain infiltration, limits runoff, and enables equipment access during wet months. These practices reflect a thoughtful blend of stewardship and business acumen common among local farmers.

Amy shared the importance of engaging with rural residential landowners. For example, larger parcels with varied topography often present low-effort, high-reward opportunities for establishing native plants and improving water retention. Planting native perennial grasses in roadside buffers or natural dips in the land can enhance infiltration and support vegetation through dry summers with minimal maintenance. These site-specific, practical interventions—tailored to the land's features—can deliver significant environmental benefits and are accessible on nearly any property, regardless of size.

Question: For groundwater recharge, are you looking at percolation basins, injection wells, or other

methods? Have any promising sites been identified thus far?
Answers: LSCE shared that the Subbasin is evaluating a range of groundwater recharge methods, including percolation basins, injection wells, dry wells, and the use of natural landscapes or existing infrastructure like tailwater return systems. While injection wells offer the advantage of quickly delivering water to deeper aquifers, they are currently of lower priority due to maintenance challenges and limited capacity. The team is focusing more on recharge through basins and natural systems, seeking to repurpose existing features where possible. LSCE emphasized the importance of tailoring approaches to local hydrogeology and avoiding unintended impacts on other users. Several promising concepts are emerging as the team continues to refine its priorities.

Additionally, Alex highlighted the potential to utilize high-flow spill events from Lake Berryessa for recharge. In years like the most recent, when an estimated 56,000 acre-feet of unused water spilled from the Lake for 87 consecutive days. There may be opportunities to divert similar excess flows through existing drainage or distribution systems for recharge purposes in the future. While such events are not annual, optimizing the use of these episodic flows could provide local benefits and contribute to Solano County's broader recharge strategy.

Groundwater-related Programs Around the Subbasin

Misty Kaltreider, Solano County Water Resources Program Manager, shared the County's integrated One Water Framework, which promotes multi-benefit water projects that treat all water sources—stormwater, groundwater, and agricultural use—as part of a connected system. The framework encourages collaboration to improve groundwater sustainability, reduce flooding, and support agriculture. It will guide future planning in unincorporated areas and serve as the foundation for a utilities master plan.

Solano County is also developing a Drought Resilience Plan to protect small water systems and domestic wells, supported by a regional Task Force. Solano County is also launching an Agricultural Initiative, through the state-funded Sustainable Ag Lands Conservation (SALC) grant, to preserve working lands and strengthen local food systems. These efforts reflect the County's commitment to sustainable water management and drought preparedness.

Martha McKean, Dixon RCD, shared resources and information about the Dixon-Solano Water Quality Coalition. Over 119,000 acres—about 98% of eligible irrigated land in Solano County—are enrolled the Irrigated Lands Regulatory Program, which aims to protect water quality from agricultural runoff and groundwater contamination. Landowners are responsible for implementing best practices, reporting, and completing education requirements (attendance at this meeting qualifies).

She highlighted the Coalition's collaboration with local agencies to share data, support nitrate testing for drinking water wells, and promote practices that protect water quality long-term.

Zoom poll question/answer

The group was asked for open-ended answers to a Zoom poll question: If you are a landowner in the Solano Subbasin, please share something about groundwater recharge practices you are interested in and/or practicing. Two replies were received:

- "Keeping the ground covered all year, both cover crop and the crop is most important. In upland areas, contour swales can be installed in small drainages to rehydrate the soil."
- "Capture rainwater in a seasonal pond. Would love to use a cover crop."

Next Steps and Ways to Stay Involved

Jenn encouraged participants to explore groundwater resources, including links for the July Sustainable Groundwater panel hosted by Community Alliance with Family Farmers (CAFF) and the Center for Land-Based Learning and DWR's Dry Well Reporting System.

Jenn showed a timeline of the long-term SGMA process and goals to maintain sustainability in the Subbasin. She encouraged participants to visit the SolanoGSP.org website, links shared in the chat, and to get involved in additional ways, including:

- Attend an event in partnership with a local RCDs
- Attend individual GSA Board Meetings
- Visit SolanoGSP.com, join the Solano GSP newsletter list
- Attend Town Hall Meetings
- Stay engaged with beneficial user groups
- Visit https://groundwaterguide.com/, which also includes information in Spanish.
- Learn more about the Solano County One-Water efforts: OneWater@SolanoCounty.com

Jenn extended her gratitude to the panelists, growers, agencies working on water sustainability, and all those who attended the 2025 Virtual Town Hall. She encouraged participants to share feedback and ideas. Links to feedback surveys were shared in English and Spanish. Participants were encouraged to contact Guadalupe@aginnovations.org with additional questions and ideas.