



10/29/2025

California County Café

– Specializing in Drought Resilience



Welcome and Setting Intention

Julia Ekstrom – California Department of Water Resources

On the Menu

Welcome and Setting Intention

→ The C3 Process – Reminder

→ Statewide SB 552 Status

Theme for Today: **Community Groundwater Monitoring**

→ Sharing and Discussion

Closing

The C3 Process

- **Desired outcome** – Network and exchange ideas and resources among counties.
 - Increase the understanding of SB 552 intent and requirements.
 - Learn about different implementation approaches, practices, and experience.
 - Compare identified resource needs and share funding opportunities.
 - Improve coordination with other agencies and interested parties.
- **Our format** – Information exchange among counties to share information and approach to SB 552 implementation. (Café gatherings and Office hours)
- **Intended audience** – County staff.

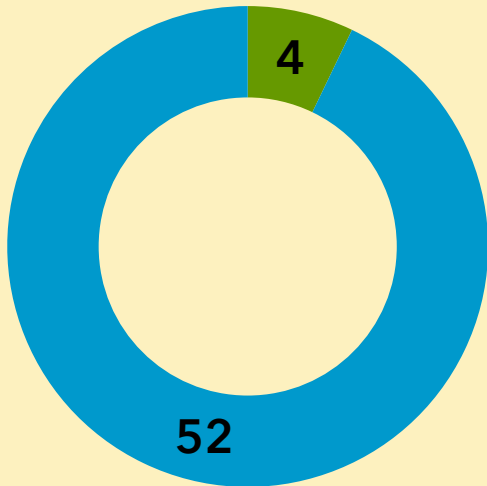
Appreciate others listening in but focusing on staff who are responsible for developing the DRP and implementing.

Essentials of the C3 Gathering

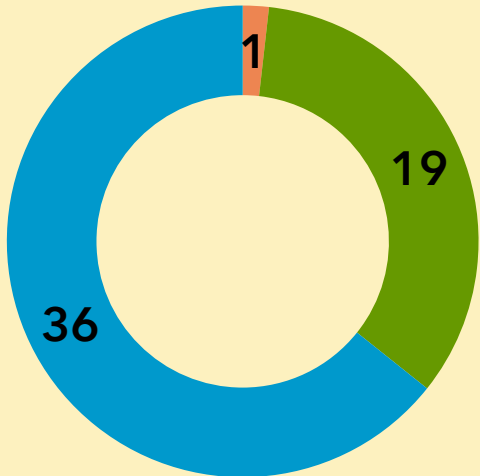
- ✓ Join the conversation – share your experience and learn from other perspectives and experiences.
- ✓ Make a connection – use the chat to connect with other participants.
- ✓ County focused – While all are invited to join, this gathering will focus on supporting county staff.

Statewide SB 552 Status

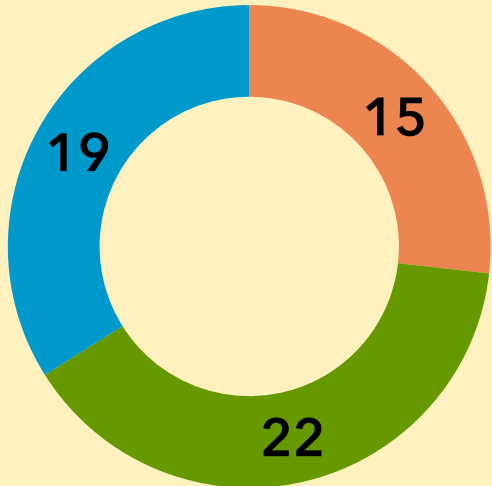
Task Force Formation



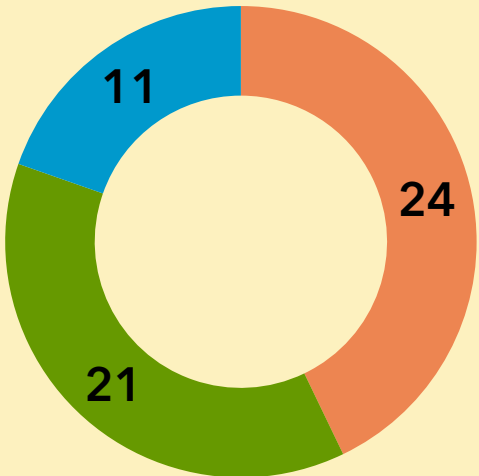
Risk Assessment



Response Actions and Mitigation Strategies



County Drought Resilience Plan Development



Not Started In Progress Completed

Congratulations Santa Barbara for completing your plan!

Source: 10/28/2025 data based on input from 56 counties enrolled in DWR's assistance program. One County returned to 'In Progress' due to staffing issues. Exclusions: The City and County of San Francisco are covered by other requirements, and one has not enrolled in DWR's assistance program.





Community Groundwater Monitoring Presentations

Zoe Kanavas, DWR

Mitchell Buttress, Sonoma County Water Agency

Community Groundwater Monitoring

Your Experience

Has your county explored or implemented any groundwater monitoring efforts?

→ San Luis Obispo, Santa Cruz, Placer, Madera, Butte, and Sonoma (Monterey exploring)

What are you monitoring for? Groundwater level and some water quality

Do you know of any groundwater-dependent communities (e.g., schools, small water systems, or domestic wells) in your county that may be interested in groundwater monitoring?

→ Santa Cruz, Shasta, San Mateo, San Luis Obispo, and Madera

Community Groundwater Monitoring Challenges

What challenges do you anticipate/experienced in starting groundwater monitoring efforts in your county?

- Community participation
- funding/resources
- Data privacy concerns/trust
- Data interpretation for non-basin areas/Finding a way to synthesize the data such that it is useful for management decisions
- Technical Expertise
- Where I live, there is a lot of competing demands between agriculture and domestic use
- Staffing capacity
- Limitations of existing wells
- Our county acts as three separate GSAs
- Outreach

Community Groundwater Monitoring

Your Questions

What would you like to hear from other counties about groundwater monitoring efforts?

- Creative solutions for **partnering with local stakeholders**
- What **challenges** do you face with your groundwater monitoring program? What **tools or technical support are needed to reduce cost?**
- How they implement their efforts and **any special programs** they maintain/use.
- How the **data is used and what type of privacy assurances** are given to the participants, **funding**, challenges and lessons learned
- **Data management** and what they are doing with the data.
- How to deal with **property that changes ownership** and staying on top of keeping those wells in the program
- **Incentives** for participation

Community Groundwater Monitoring Program

Partnering with communities to build
groundwater knowledge and resilience

California County Café

Wednesday, October 29th, 2025

Presented By: Zoe Kanavas CA Department of Water Resources



Why Groundwater Monitoring Matters



Science-Based Decision Making

→ Local data can result in solutions tailored to real, local conditions



Safe, Reliable Water Access

→ Spot problems early and keep wells running



Long-Term Groundwater Sustainability

→ Track trends and protect future supply



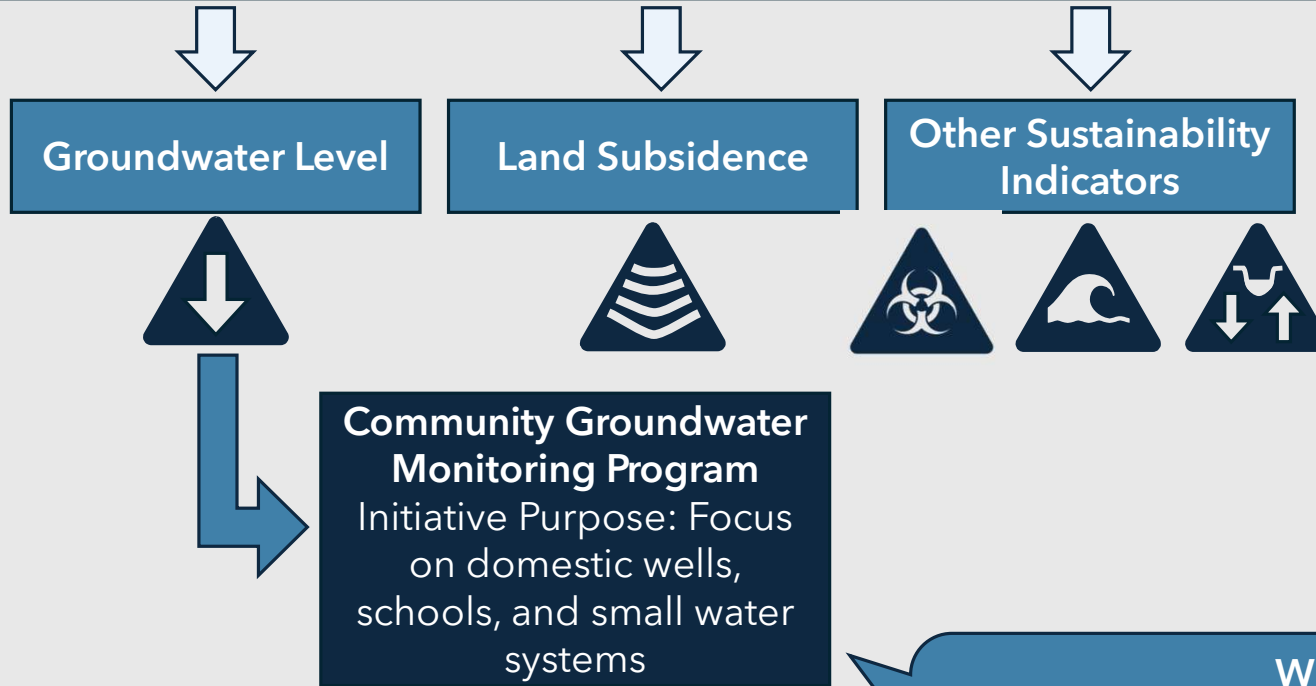
Stronger Community Drought Resilience

→ Prepare, respond, recover from shortages faster – together

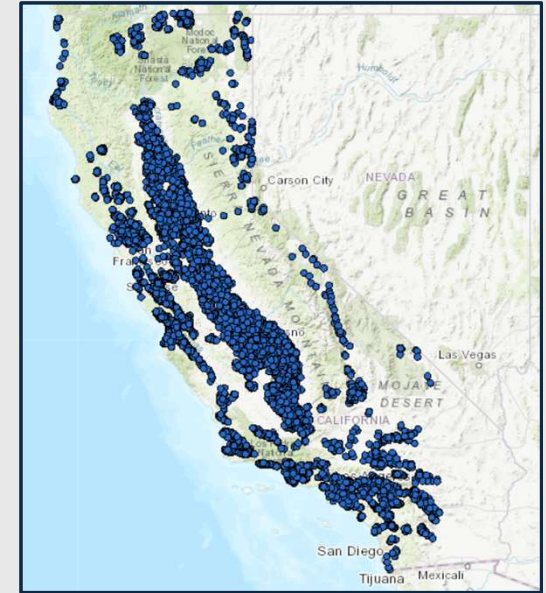


DWR's Statewide Groundwater Monitoring Enhancement

Initiative Purpose: Maintain, improve, and expand monitoring network



Current Monitoring Network



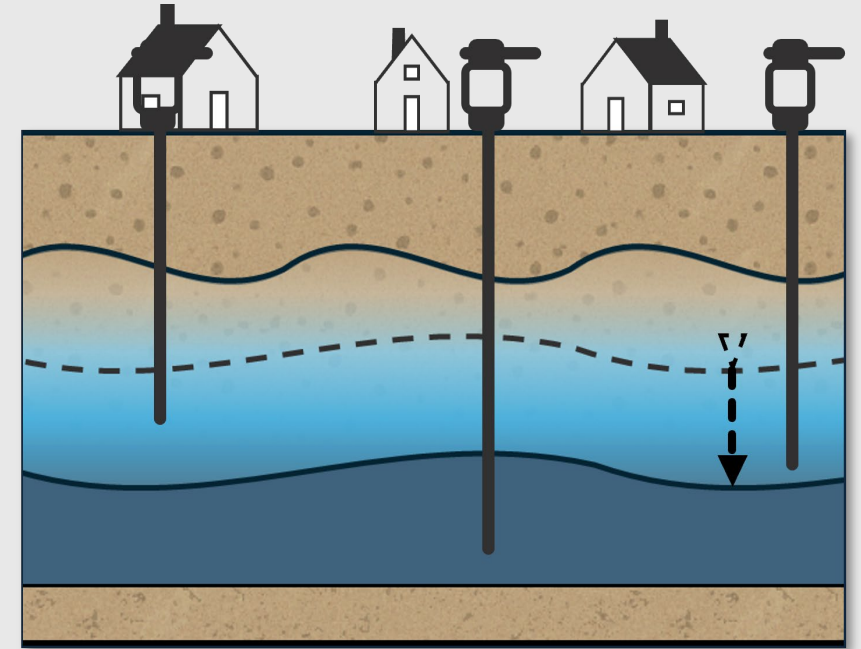
Why this matters:

- ✓ SB 552 monitoring requirement for small water systems
- ✓ Builds local data to inform county drought task forces
- ✓ Strengthens collaboration between DWR, counties, and communities



What is the Community Groundwater Monitoring Program?

- Voluntary program for domestic well owners, schools, and small water systems
 - Offers training, equipment, and support
- Monitor groundwater *levels* – **not use**
- Builds **community knowledge** and statewide monitoring coverage
- Flexible to meet **local needs** and **interest**



Domestic Well Owners: How it Works

Levels of Participation

Level A: Learn

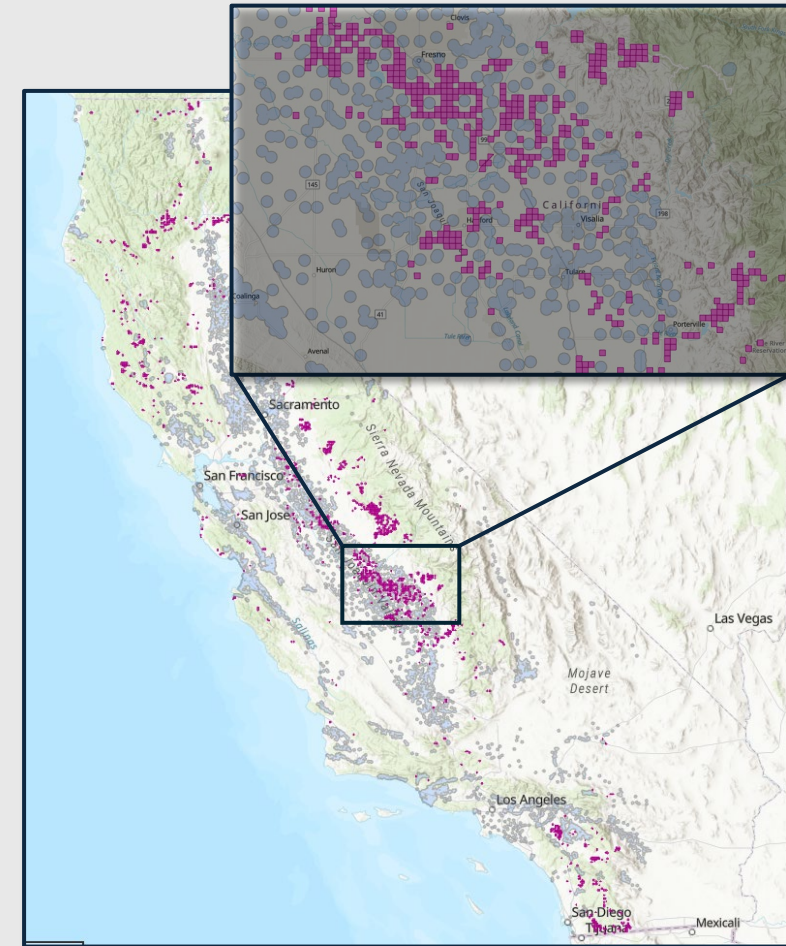
- Receive training and educational materials
- Understand your well & local groundwater conditions

Level B: Contribute

- Receive training and educational materials
- Long-term monitoring equipment loan
- Participant collects data and share with DWR

Level C: Collaborate

- Receive training and educational material
- Access agreement
- DWR collects and manages data



Priority areas for domestic well monitoring.

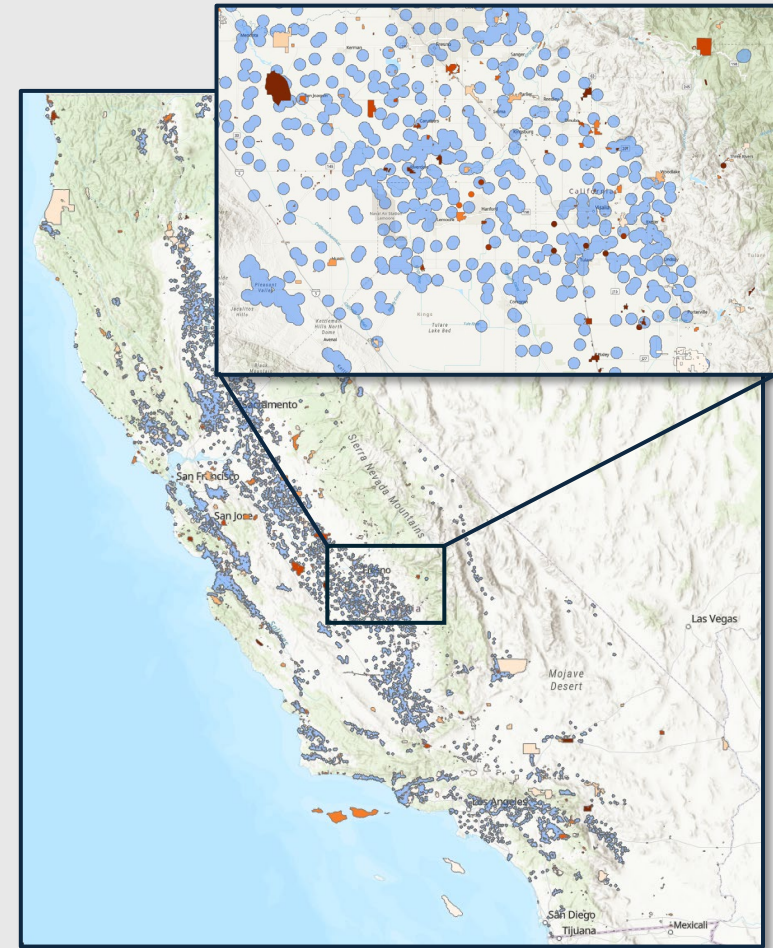
Based on Water Shortage Physical and Social Vulnerability scores, current monitoring coverage, and well density.



Small Water Systems: How it Works

Monitoring Options

- **SB 552 compliance:** helps schools & NTNC schools meet the new groundwater monitoring requirement
- **Equipment provided at no cost** – either:
 - Electronic sounder, OR
 - Pressure transducer + telemetry set-up
→ Equipment depends on well suitability
- Prioritizing gaps in monitoring coverage, but **open to any interested systems**, especially those vulnerable to water shortage events

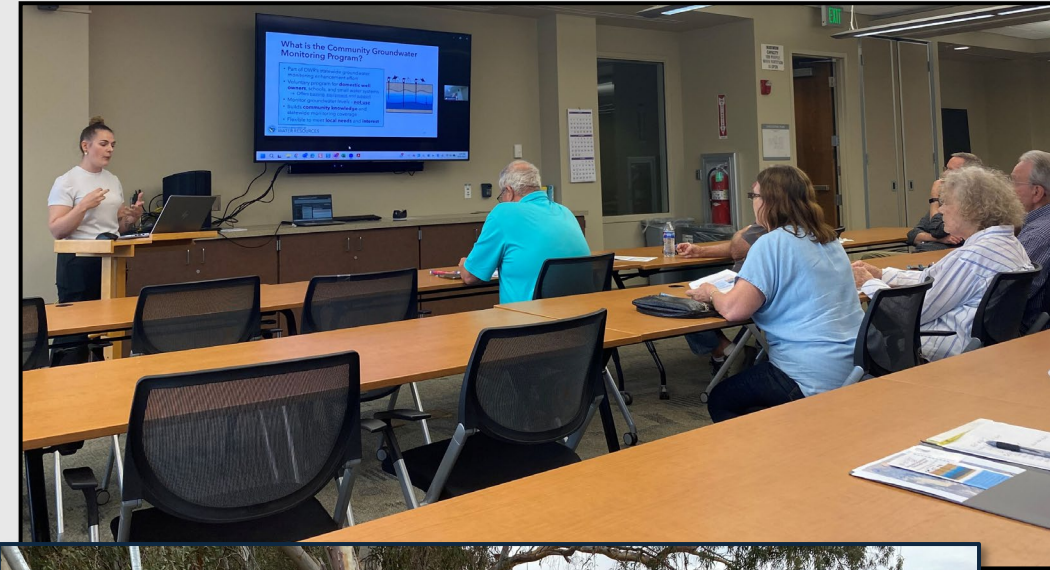


Priority areas for small water systems groundwater monitoring.
Based on current monitoring coverage.



Local Partnerships underway

- Domestic well community pilot
 - Co-led with Sacramento County DWR in the **South American Subbasin**
 - Community meeting held last month
 - Site visit this last Monday
- Small water system pilot
 - Partnering with **Rolling Acres** (small water system in Yolo County)
 - Testing equipment setup, data stream, and support needs



Partner with Us to Expand Groundwater Monitoring in Your County

- **Be the next pilot:** DWR is looking for counties interested in partnering
 - Help us identify domestic well communities, schools, or small water systems
 - We provide outreach materials and equipment
- **Share feedback** to shape program expansion and align with local drought resilience goals

Interested? Contact Zoe at
zoe.kanavas@water.ca.gov

 **Community Groundwater Monitoring Program**

Program Overview for Domestic Well Owners

Groundwater is a vital but hidden resource, making it difficult to plan for and manage. This effort helps communities uncover what's happening underground to guide better decisions. Your participation will create a clearer picture of local conditions and support a secure water supply future for your community.

What is the Community Groundwater Monitoring Program?

The Community Groundwater Monitoring Program is a voluntary effort led by the California Department of Water Resources (DWR) to better understand and protect local groundwater. By partnering with domestic well owners, the program measures groundwater levels (not water use) to help communities spot problems early, learn more about their groundwater supply, and enhance data collection in areas at higher risk for shortages and dry wells.

Why Your Participation Matters

At no cost to well owners, this groundwater monitoring opportunity will help provide real benefits for domestic well communities:

- **Spot problems early:** detect declining groundwater levels before they affect your well
- **Understand your water:** learn about local groundwater conditions and long-term trends
- **Support drought planning:** groundwater level data helps DWR and other agencies plan and respond to drought

Ways to Participate

The Community Groundwater Monitoring Program offers two ways for domestic well owners to understand and track groundwater conditions best for you:

Level A: LEARN	Level B: MEASURE
Explore and understand your well	Measure and track groundwater levels
☒ Receive training materials	☒ Receive training materials
☒ Understand your well & local groundwater conditions	☒ Borrow monitoring equipment for long-term data collection

Data Privacy and Sharing

What's measured: This program records groundwater levels (the depth to water, not how much you pump). It does not track water use or pumping.

What's private: Personal details such as your name, address, and contact information are not shared. Only non-identifying information (including well location, depth, and screen depth) is made public.

Where it's shared: Groundwater level data from the program can be better understood groundwater condition library, and the [CNRA Open Data Platform](#).

If you have any questions or are interested in participating, contact Zoe Kanavas (zoe.kanavas@water.ca.gov) or Bryce Russell (bryce.russell@water.ca.gov).

 **Community Groundwater Monitoring Program**

FAQ - Data Collection, Submission, and Use

We understand your privacy is important. Participation is entirely **voluntary**, and your personal information will be protected. While basic well details are needed for technical analysis, your name and contact information will never be made public unless you explicitly choose to share them. This FAQ explains what information is collected, how it is used, and how it benefits your community.

What information will be made public?

This program measures groundwater levels (the depth to water, not how much you pump). The following information will be publicly available:

- Well location (latitude, longitude, ground surface elevation)
- Groundwater level measurement (depth to water, date and time of collection)
- Basic well construction details (total depth, screen depth)

Note, if your driller submitted a Well Completion Report to DWR, this information is already public.

How is my privacy protected?

Your data will be anonymized - personal information such as name, street address, and contact information will not be shared, meaning individual well owners cannot be identified.

Where will the data be submitted?

Data will be submitted to California Department of Water Resources (DWR) through the Sustainable Groundwater Management Act (SGMA) Portal Monitoring Network Module (sgma.water.ca.gov/portal). Instructions for data submission will be provided in a separate document.

Where can the public view the data?

The basic well information and groundwater level measurements submitted will be made publicly available through the following platforms:

SGMA Data Viewer


sgma.water.ca.gov/webgis

Water Data Library


well.water.ca.gov

CNRA Open Data Platform


data.cnra.ca.gov

Can local GSAs use this data?

Yes. Groundwater Sustainability Agencies (GSAs) may use the data if the well and data collection method meet the requirements of their monitoring networks and SGMA legislation (tinyurl.com/SGMALegislation).

How will this data benefit the community?

Collecting and sharing groundwater level data helps communities in several ways:

- Understand how wells respond to weather, pumping, and drought.
- Inform local planning for drought response, community development, and well mitigation.
- Provide early warning of declining water levels and potential dry wells.
- Track groundwater trends over time to protect supplies for future generations.

Who can I contact with questions?

If you have any additional questions, reach out to Zoe Kanavas (zoe.kanavas@water.ca.gov) or Bryce Russell (bryce.russell@water.ca.gov).

Outreach materials for domestic well owners



CALIFORNIA DEPARTMENT OF
WATER RESOURCES



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GROUNDWATER SUSTAINABILITY AGENCIES



LEVEL UP!

VOLUNTARY WELL MONITORING
PROGRAM

Mitch Buttress, Hydrogeologist,
Sonoma Water

Sonoma County's 3 GSA basins encompass:

~ 170,000 acres
(15% of Sonoma County)

~ 350,000 residents in the basins
(72% of Sonoma County)

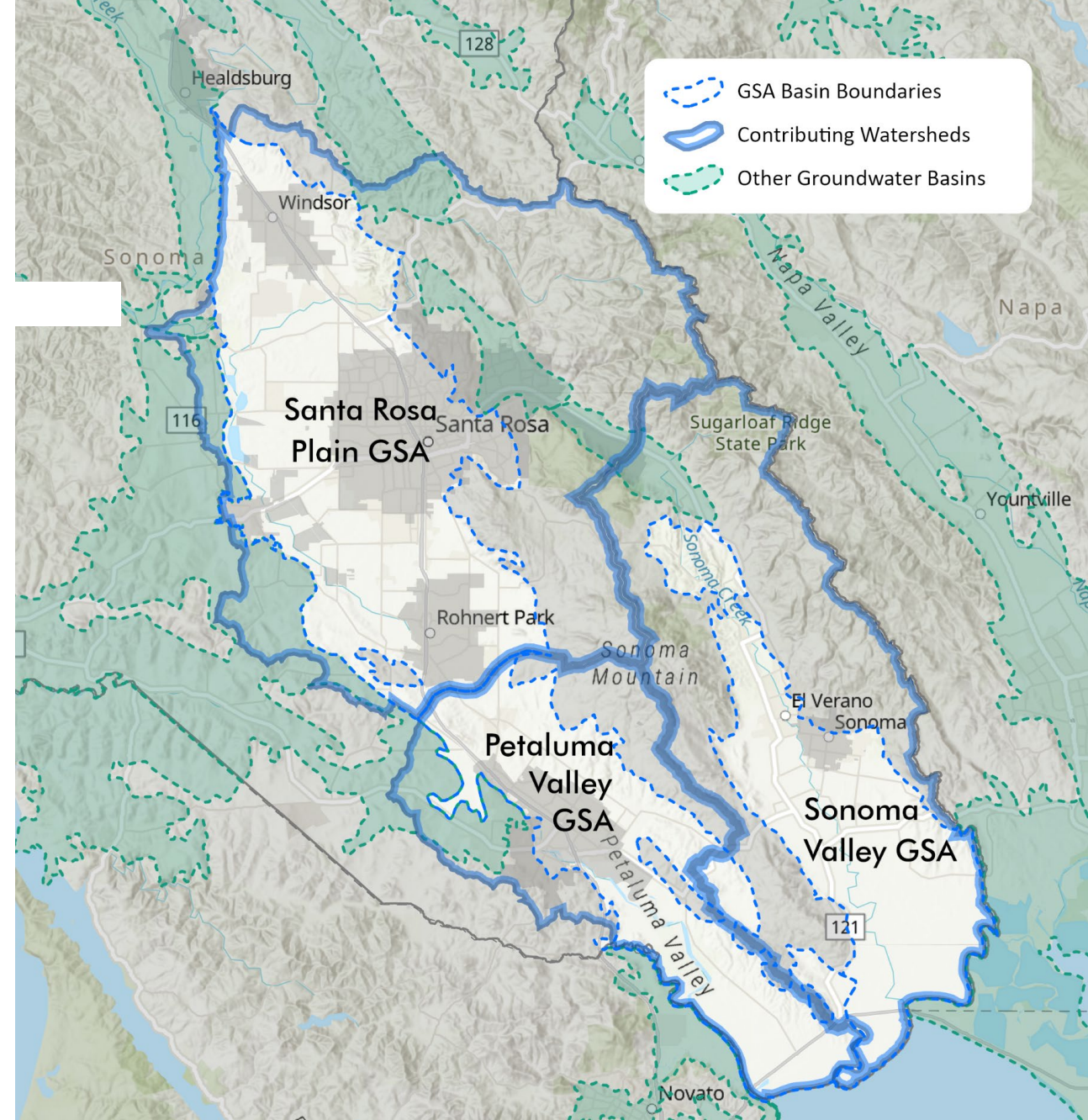
~ 112,000 parcels

~ 9,300 rural residential groundwater user parcels

Prime vineyards, dairies, crop and pasture lands

Municipal, institutional, commercial, and industrial
uses

Sonoma County has the **largest number of wells (>40,000) per capita** in California



Why do community programs?

It will take the whole community working together to build a sustainable water future.



Principles for Engagement with the Community

- Aim to foster a common understanding of groundwater conditions
- Existing networks and trusted communicators can be leveraged to engage with groundwater users
- Trust is earned through direct contact, listening and responding to stakeholders, and transparently sharing data
- Align information and technology with stakeholders' understanding and conventions



Join the Sonoma County



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GROUNDWATER
SUSTAINABILITY AGENCIES

Voluntary Well Monitoring Program **LEVEL UP!**

Measure your well water levels twice a year & contribute data to the local sustainable groundwater management database

Benefit from access to short and long-term trends in your aquifer via an online graphical data dashboard

The data you contribute helps build a more accurate picture of community groundwater resources

Measure 2x a year: April and October **SIGN UP TODAY**



Voluntary Well Monitoring



Funding for this project has been provided in full or in part from The Budget Acts of 2021 and 2022 and through an agreement with the State Department of Water Resources. (SGMA GSP Implementation Grant)

LEVEL UP!: SonomaCountyGroundwater.org/voluntary-monitoring

LEVEL UP!

Voluntary Well Monitoring Program

Challenge: Limited monitoring wells → gaps in groundwater data.

Approach: Invited well owners to measure and share groundwater levels. Explain how this information benefits them and their local groundwater basin.

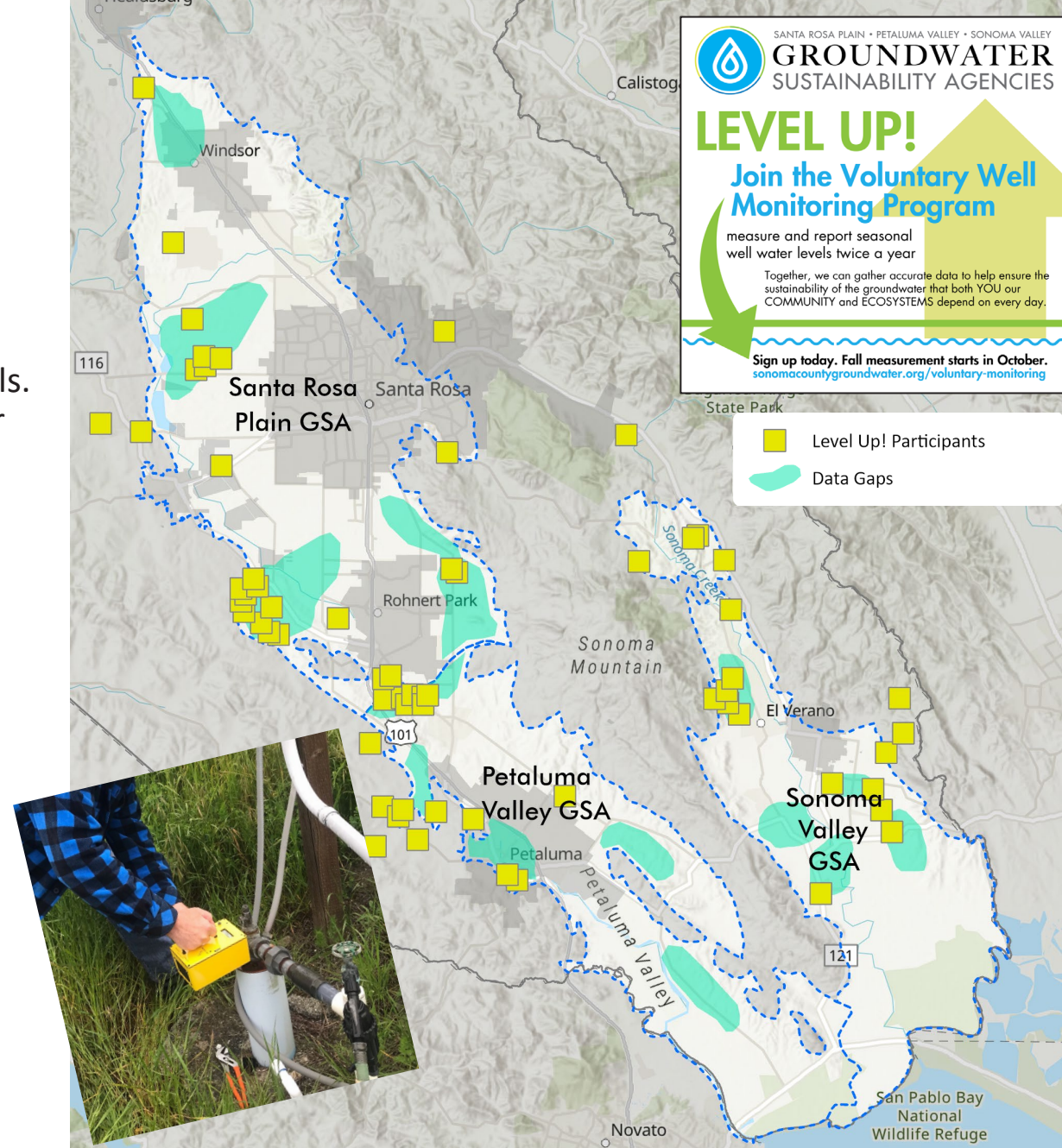
Outreach: Target outreach to people in data gap areas, utilize on-the-ground outreach contacts for support.

Where We Are Now:

- 133 well owners engaged, 84 fully enrolled across three GSAs.
- Data being incorporated into basin-scale models and displayed anonymously on a public interactive ArcGIS dashboard.
- Participants report increased awareness of groundwater trends.

Lessons Learned:

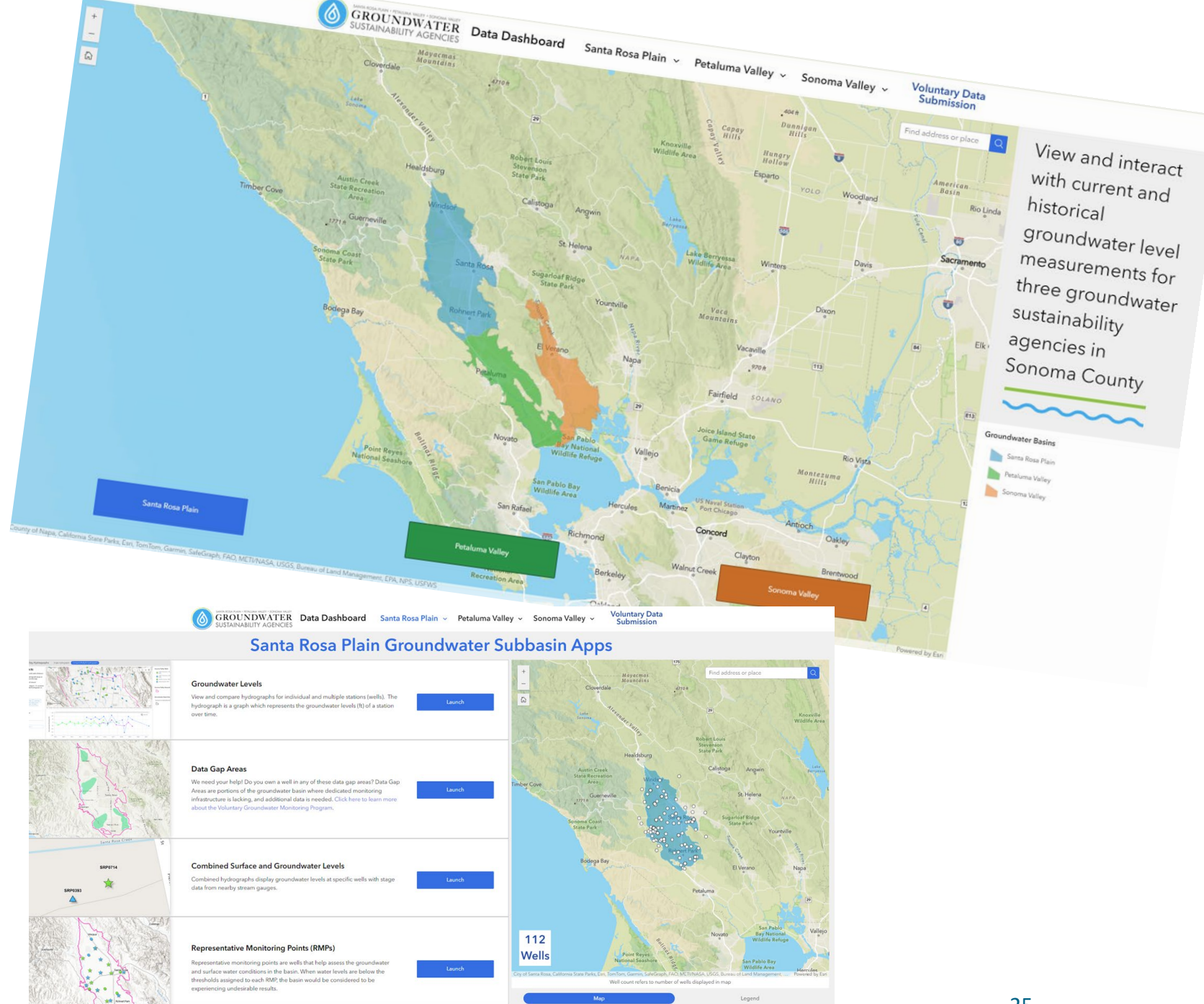
- Trust and transparency drive participation.
- Training and easy-to-use tools matter.
- Consistent marketing and communications are key to prolonged engagement.



Sonoma County Groundwater Data Dashboard

Groundwater-level data available for wells in the Groundwater Sustainability Plan (GSP) monitoring networks.

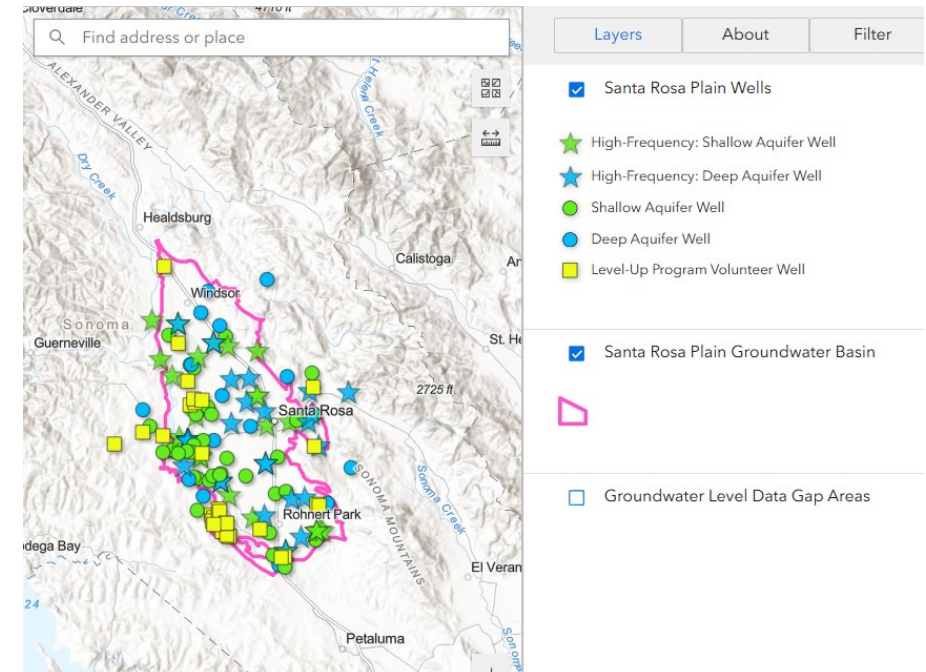
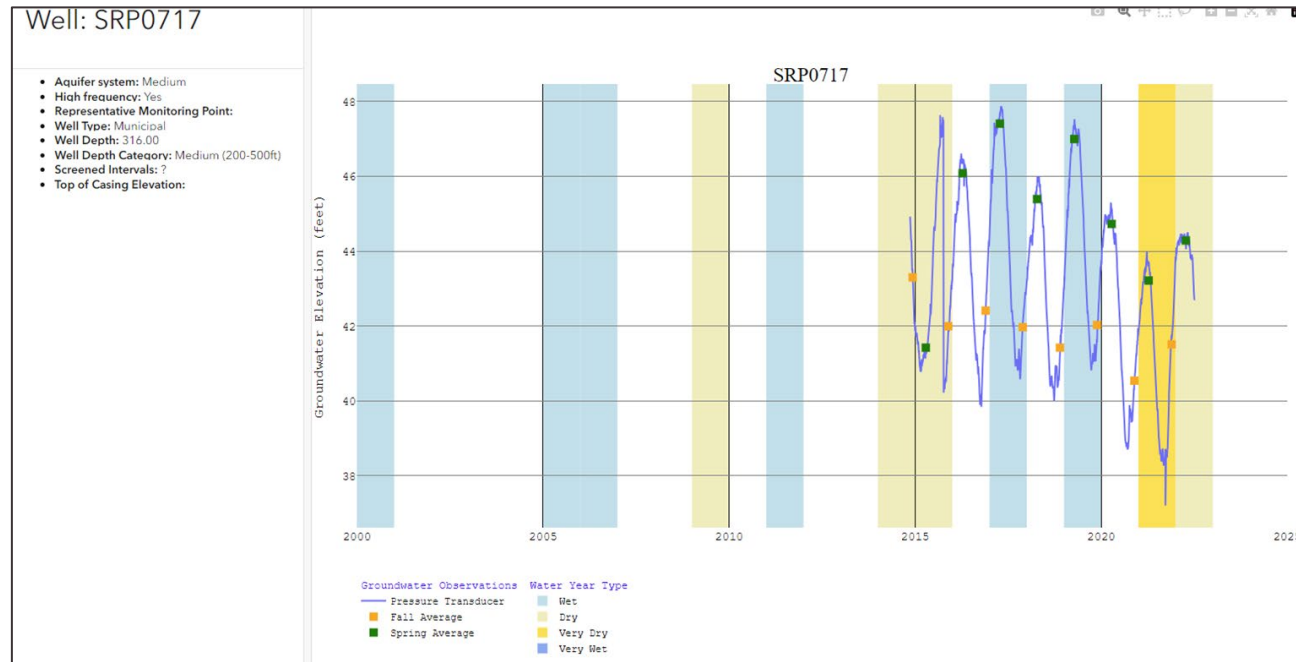
- Volunteer wells are added to the data hub as they are enrolled in the program.
- Zoom in and click on a well to see the groundwater-level hydrograph, which shows seasonal changes in groundwater levels.



Sonoma County Groundwater Data Dashboard

- Users can view one or compare multiple hydrographs
- Privacy protections in place – no private well owner personal information accessible on the dashboard website or shared with state agencies
- Local groundwater managers are looking at this data all together to build overall sustainability in our aquifers

**Launch Data
Dashboard**



The GSA and groundwater users have a shared responsibility to sustainably manage our aquifers. Community programs build stewardship mindset.



Questions & Discussion

Mitchell Buttress, Hydrogeologist

Mitchell.buttress@scwa.ca.gov

Pamela Van Halsema, Outreach

pamela.vanhalsema@scwa.ca.gov

More Information on Sonoma County GSAs
& Programs



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GROUNDWATER SUSTAINABILITY AGENCIES

Thank You!

Data Management a Key Component

Challenge: Information silos across multiple programs and three GSAs make tracking and communicating with participants time intensive and hard to manage.

Approach: Merge parallel database systems for each program and process together into one relational database CRM (constituent relationship management software). Select software (Freshworks), design data fields and functions, map workflows, data clean up, build system

Where We Are Now:

- System is now in use with LEVEL UP! Participants, interested parties lists and key stakeholders.
- Automated messaging for LEVEL UP! Participants has been initiated
- The GSA newsletter is also created and sent via this platform



The Sonic Water Level Measurement Tool

Uses acoustic air signals to measure the depth to water.

Accurate water level measurements

- Easy to use
- Self-contained, battery operated tool
- Obtain measurements in seconds
- Avoids cross-contamination



Upcoming County Discussion Opportunities

November 19th, 9-10am: Office Hours

→ [Registration link](#)

No gathering in December

Follow-up questions?
Feedback to share?
Fill out this survey!



<https://forms.office.com/g/A4MS6VZHBd>



Closing – Thank you!

Next steps – we will follow up with an email to counties for future gatherings, ppt, invitation to share in upcoming gathering.