

Part 0. Recommendation Declaration

To be submitted to the DRIP support team prior to commencing work on Part I.

Recommendation Proposer

DRIP Member name, member type (state/non-state) and any partners (DRIP members or external) in development of proposed recommendation.

Suzanne Pecci, public member with a domestic well as the sole source of drinking water; member of a Domestic Well Advisory Groups formed under the SGMA which has an interest in developing and implementing a Well Protection Program for the Local Community thru partnering and with coordination.

Recommendation Idea

Provide a brief (no more than 150 words) description of the idea for a recommendation.

The goal of this recommendation is to foster the organization of local community-based well monitoring programs with the objective of monitoring domestic wells and gathering well data for inclusion in regional and statewide databases. This would be accomplished by providing technical assistance and a funding mechanism. A key element of this program would be to support domestic well community engagement by fostering education, awareness, and developing responsibility for wise water use at the individual level. Regarding education, it would aim to establish community wide understanding of the following: significance of groundwater levels, water quality, value of well maintenance and repairs, and development of funding sources.

This local effort would be a partnering opportunity between domestic well communities, GSAs, NGOs, other beneficial users, land use agencies and the private development sector. The program may also help develop and implement water policies and actions protective of local domestic well communities water levels and water quality, so that it provides proactive, funded support to domestic well communities throughout the drought lifecycle.

Focus Area

Drought Relevant Data Drought Narrative **Drought Preparedness for Domestic Wells**

Intended Benefit to the Drought Risk Management Cycle (Please check all that apply)

- Mitigation, Preparation and Capacity**
- Forecasting and Monitoring**
- Response
- Recovery

Part I: Recommendation Overview

Recommendation Title

Technical Support and Funding for a Community Well Monitoring Program

Description

In one or two paragraphs, please provide a brief overview of the recommendation and how it addresses the Focus Area problem statement. Supporting documentation to include an overview of existing trends, the reasons for urgent action, and people currently impacted.

A Community Well Monitoring Network (Community Network) is described as a group of private well owners, usually pumping from the same aquifer, that join or create a network to monitor water levels and/or water quality. This is driven by a variety of reasons which often include: perception of, or quantified threat to, water quantity and/or water quality; an interest and to gain a better understanding of the hydrogeology; or an interest in sustainable management of their water resource.

Contributing factors for the need for a Community Network are the often-decreased staffing and ability of regulatory and science-based agencies to meet monitoring needs of a community. Establishing a Community Network is a recognition of the value it brings to water resource management and supports the community understanding of the competing demands of a local shared resource.

Impacts

What are the expected outcomes or benefits of this recommendation, and how will it specifically enhance drought resiliency in California?

The concept of a Community Network is a proactive program that involves the engagement of a domestic well community to educate on their individual responsibilities to service and maintain their private wells. It provides an opportunity to encourage private well owners to take a personal interest in water levels and quality in their wells in addition to fosters community interest in collaboration and sharing of data to support shared drought resiliency and recovery. This is based on understanding competing demands on a shared water resource and is a proactive effort to complement SB 552.

What are the anticipated impacts or consequences of not adopting this recommendation?

Today there is a significant and acknowledged lack of data on groundwater levels related to domestic wells. If this recommendation is not adopted, it would likely contribute to continued well dewatering issues spanning multiple areas in California. This was chronicled in the most recent drought ([Wells still drying up despite California groundwater law – CalMatters](#)) which described how thousands of well shortages occurred in areas of California that had not previously had these issues.

An example of sustainable water management efforts by GSAs and community members in rural areas are in the South American Subbasin (SASb) and the Cosumnes Subbasin. This is a large, diverse community of private wells comprised of agricultural and agricultural-residential along the Cosumnes River/Deer Creek that has approximately 3,000 to 5,000 private wells. This area is not considered to be

a “disadvantaged community” and has a regional goal to develop new homes on thousands of acres of agriculture land.

In this area, the potential consequences of not adopting proactive community monitoring include the potential of public attention on the dichotomy of wells going dry and residents relying on bottled water and tank trucks delivery for a large rural population while at the same time newly constructed homes are connected to a permanent water source. This highlights the tension of land use planning and the need for housing development, which is often at odds with sustainable use of water resources. We have a rural population which can understand competing water demands and cause and effect. A Community Network is a collaborative action which is supportive of proactive and preemptive water planning and management to implement SB 552 drought resiliency and recovery.

Implementing Parties and Partners

Who would be the implementing agency or entity (potentially multiple)?

Homeowners’ Association, Community Neighborhood Organizations, SGMA Advisory Committees, County Water Agencies, Municipal water providers, and GSAs.

Which existing entities (e.g., departments or other agencies, private or nonprofit groups, community-based organizations) will the implementing agency or entity need to partner with for successful implementation of this recommendation?

All stakeholders sharing water resources within the aquifer and political boundary as well as GSAs and NGO’s. NGO’s with environmental goals and an associated interest of resiliency associated with monitoring and protective actions to protect surface water levels in streams and waterways and interconnected waterways have water level concerns similar to water levels in shallow domestic wells. Many of these groups are active in the [Groundwater Collaborative \(cagroundwater.org\)](http://cagroundwater.org).

Describe the coordination required by federal, state, local and tribal governments to successfully implement this recommendation.

A key challenge in implementing this recommendation revolves around funding. It was stated at the Drought Preparedness for Domestic Wells workgroup meeting on June 4, 2024 that there may be federal or state funding available for projects and actions for implementation of SB 552. This will be a key consideration in completing Part 2 of this template. Coordination with federal agencies would be required to disperse funds and provide technical assistance and oversight.

Overall coordination with existing entities is dependent on the level of regulatory authority required to be involved. It is assumed that local government would play the major role in coordinating with the Community Network—most notably the county who is the implementing agency of SB 552.

Collaboration with GSAs is already prescribed in the SGMA regulations and a significant amount of the implementation of Community Network would be required by the GSA’s who develop the GSPs. It is a goal of the Community Network to inform the GSP refinement and be a precursor to adopt corrective actions. Collaboration could be through the Community Advisory Committee. Local adoption of this Community Network would need to be tailored to the structure and needs of each specific community.

Alignment with Other Initiatives

How does the recommendation align with and/or leverage existing state efforts, concurrent public or private initiatives?

The Community Network will need to align with a diverse set of local stakeholders, most notably related to SGMA. The Community Network could also align with local and private activities and initiatives to include science activities in schools, Future Farmers of America, etc. Community Networks should align with land use agencies and inform the General Plans and Municipal Code amendments especially where development is driven by the large number of bills from the Senate to remove barriers to dense development that may be impactful to domestic well communities. Local network monitoring data should be added to LAFCOs' Sphere of Influence in areas where expansion and development about domestic well communities, where water supply is not identified, and where water and sewer infrastructure extensions are not part of the approval requirements. It is also assumed that local monitoring data would be reported to State agency authorities, especially if they are providing funding or technical assistance to set up the local networks.

Implementation Time Frame

Approximately how quickly could the proposed recommendation be implemented? Factor time needed to develop, design, permit, construct (if applicable). Select one timeframe:

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

Part II: Implementation Considerations

Necessary Steps & Measuring Success

What are the key steps to adopt and implement action?

The following is a general list of key steps and considerations to support the implementation of a pilot program.

1. **Research related pilot programs** and other community-based groundwater monitoring programs to inform pilot approach (including pilot size, data sharing and transparency issues, engagement, and funding)
 - Engagement of the broader community should include an education of domestic wells owners on their responsibility to repair and maintain their wells.
 - Data would ideally be shared via an open platform accessible to all domestic well owners populated with the community water level open data, general information and resources for domestic well owners, and options to opt-in the Community Well Monitoring Network
 - Related pilot programs include:
 - i. [Yolo Subbasin GSA Groundwater Monitoring Program](#)
 - ii. [Sonoma County's Level Up! Voluntary Well Monitoring Program](#)
 - iii. [Napa County's Voluntary Well Monitoring Program](#)

2. **Develop criteria and process** for selecting a pilot study area (partnership opportunities, existing monitoring efforts)
3. **Identify and define the pilot community** where the community network will be centered
 - Identify the regional issues driving monitoring
 - Develop Community Outreach and Participation Plan
 - Identify partners (Determine point of contacts, existing relevant task forces/committee/agencies working in the area)
 - Define roles and responsibilities for those involved in the project (including GSAs/NGOs/State Agencies/Community members)
4. **Review existing groundwater level monitoring**
 - Extent of current monitoring (what wells are already being monitored? What types of equipment is used? Who owns that equipment and how much does it cost?)
 - Data collection and use (What type of data is being collected? Who is using the data and how? Who can access the data? Is there an Access Agreement and Monitoring Consent Form in place? Are there existing guidelines a data collection protocol in place?)
 - Data gaps: Identify spatial data gaps → use to determine where to target outreach
 - Establish baseline groundwater levels
5. **Prepare Pilot Guidelines** that explain monitoring and data reporting activities (how to use the monitoring equipment, the monitoring frequency, data reporting options, etc.). These Guidelines should be developed in a way that allows application in other regions/monitoring programs.
6. **Convene a Planning Committee** of network partners to develop a Communication and Engagement Plan that include goals, objectives, and operation of the program tailored to local needs.
7. **Launch the monitoring program**
 - Outreach, monitoring kickoff event, first major training, collective data collection event
 - Network check-ins - Frequency could be quarterly as the Monitoring Network is establishing and greater community participation in the network is achieved to a predetermined “ideal” size. Frequency of community outreach once established could correspond to the semiannual collection corresponding to GSA monitoring in Spring and Fall depending on the continuing level of public participation. Network check-ins could also be held at planned community social events- bar-be-ques, social events at local wineries.
8. **One-year-in evaluation and update**
 - Evaluation period to assess the need to adaptively manage components of the Program (evaluate level of participation, added value of additional data collected)

To help monitor progress and success, what thresholds and reporting can be identified to reflect successful implementation?

- Evaluation of pilot progress and success should include opportunities to understand the level of participation and interest, what information is gained through the program to address local/regional water related issues, and how to scale this pilot to other regions in the state.
 - Engagement and partnerships. Examples include:
 - Meeting and event attendance

- Meetings may have a “social element” to attract and maintain participant interest. Meeting agenda could include demonstrations and discussions by well experts in the area on well maintenance, repair, regulations, etc.
 - Number of domestic well owners expressing interest in learning more on participating?
 - Extent of monitoring program
 - Number of new monitoring wells added to the Network
 - % of land covered
 - % of domestic wells where monitoring is being done
 - Number of well measurements submitted to local and state officials
 - Evaluating for added value
 - What additional information is gained?
 - How is data being used?
 - Some potential data uses include: additional measure to evaluate the sufficiency of Minimum Thresholds and Measurable Objectives set in the GSP, local land use policies, County Environmental Management Department regulations
 - Should this be expanded beyond the pilot?

Potential Challenges

What issues or challenges might arise during implementation (e.g. authority or need for additional authority, funding or revenue streams, public awareness and perception, technical, interagency coordination)? List these hurdles and offer a brief description of how to address/mitigate them.

- Data security, transparency and confidentiality
 - May be addressed through explanation and demonstration of data anonymization
- Coordination between involved parties; division or share of responsibilities
- Technical ability to interpret groundwater level data
 - May be addressed through “citizen scientist” training and collaborations with nearby universities
- Potential data visualization and how that is integrated with existing efforts that may be related (GAMA, SGMA data viewer)
- Public buy-in; communicating the value of participating in the program

Are there foreseeable potential negative consequences or unintended impacts associated with implementing this recommendation?

- Data privacy
 - Connection to property value/ family dynamic impacts from known water supply issues
 - This can be address through data anonymization.
- Potential local tension arriving from concerns of monitoring groundwater levels
 - This can be addressed by sharing examples from successful community monitoring programs and providing opportunities to engage with experts.
- Disengagement and lack of continuity of program participants
 - This can be addressed through creative public engagement or “perks”, potentially including free water quality testing or rebates on water saving devices.

Funding

What are the potential (estimated) costs to implement the recommendation? Is there both an implementation cost and ongoing costs? Briefly describe any assumptions behind the estimate.

- Capital cost and ongoing maintenance cost of monitoring equipment
 - Typical cost of sounder ranges from \$1,000-\$1,500
 - Cost of coordinating meetings; estimated \$12,000 for 6 meetings
- Cost of communication/outreach
 - Cost of gathering participant and setting up information Portal/Dashboard; estimated \$12,000
 - Cost of Project assessment and development; estimated \$250,000
- Cost of operating and maintaining a database; estimated \$50,000

What potential existing and/or future funding sources or mechanisms are available (e.g., grants, general fund, bond funds, rate payers, philanthropic foundations, etc.)? Does the recommendation require funding from the state and potentially matching funds?

- SWRCB GAMA program
- SWRCB SAFER program
- DWR Sustainable Groundwater Management Grant Program
- Rural Community Assistance Corporation Household Water Well Loan/Grant Program
- UC Davis Environmental Health Sciences Center Pilot Projects Program
- City or County grant programs

Seed funding from the state or another source to support the implementation of pilot would improve the chances of this pilot creating an effective/successful pilot, but is not necessary if there is local funding otherwise available for community members. Such funding could ensure the state's continued involvement and assistance with making data publicly available as part of a larger service of monitoring groundwater levels in California.

Equity and Outreach

How does this recommendation align with established agency equity policies and how might the recommendation address any specific equity or justice concerns, as defined by the DWR Racial Equity Vision, during its implementation?

- Connecting with members of the public; ensuring Human Right to Water
- Providing monitoring and reporting equipment to members of the public who it would be challenging to afford to participate in the program

What sort of outreach is necessary for the successful implementation of the recommendation? Describe the target audience and the methods of outreach needed (e.g., communication, technical or financial assistance, partnering assistance).

- Program advertisement
 - Potential outlets include community and neighborhood associations/groups, local newspapers and public notices, City and County newsletters and websites, billing statements and property tax notices, local online news organizations and podcasts, multi-cultural organizations, local fairs and events, local water district billings.
- Network communications
 - Potential outlets include through community and neighborhood associations, GSA public board meetings, public executive committee meetings, dashboard and websites devoted to domestic well owners.
- Public meetings
- Initial Program efforts for public outreach needed to provide reasons to participate, including benefits to sharing data