



MEETING MINUTES – Merced GSP

SUBJECT: Merced GSP Stakeholder Committee Meeting #14

DATE/TIME: June 24, 2019 at 9:30 AM

LOCATION: Castle Conference Center, 1900 Airdrome Entry, Atwater, CA

Stakeholder Committee Members In Attendance:

	Representative	Community Aspect Representation
<input type="checkbox"/>	Alex McCabe	City of Livingston
<input type="checkbox"/>	Arlan Thomas	Merced Irrigation District Advisory Committee (MIDAC), growers
<input checked="" type="checkbox"/>	Ben Migliazzo	Live Oak Farms, growers
<input checked="" type="checkbox"/>	Bill Spriggs	City of Merced, Merced Irrigation District
<input checked="" type="checkbox"/>	Bob Salles	Leap Carpenter Kemps Insurance, insurance industry and natural resources
<input type="checkbox"/>	Brad Robson	Buchanan Hollow Nut Co. Le Grand-Athlone Water District, growers
<input checked="" type="checkbox"/>	Breanne Ramos	Merced County Farm Bureau
<input checked="" type="checkbox"/>	Brian Carter	D&S Farms, growers
<input type="checkbox"/>	Carol Bonin	Winton M.A.C.
<input checked="" type="checkbox"/>	Daniel Machado	Machado Backhoe Inc., construction industry
<input type="checkbox"/>	Darren Olguin	McSwain MAC
<input checked="" type="checkbox"/>	Frenchy Meissonnier	Rice Farmer, rice growers
<input checked="" type="checkbox"/>	Galen Miyamoto	Miyamoto Farms
<input checked="" type="checkbox"/>	Gino Pedretti III	Sandy Mush Mutual Water Company
<input type="checkbox"/>	James (Jim) Marshall	City of Merced
<input checked="" type="checkbox"/>	Joe Scoto	Scoto Bros Farms / McSwain Union School District
<input type="checkbox"/>	Ladi Asgill	East Merced Resource Conservation District / Sustainable Conservation
<input checked="" type="checkbox"/>	Jean Okuye (alternate to Ladi Asgill)	
<input type="checkbox"/>	Maria Herrera	Self-Help Enterprises
<input type="checkbox"/>	Mark Maxwell	University of California, Merced
<input checked="" type="checkbox"/>	Maxwell Norton	Retired agricultural researcher
<input checked="" type="checkbox"/>	Parry Klassen	East San Joaquin Water Quality Coalition, growers
<input checked="" type="checkbox"/>	Rick Drayer	Drayer Ranch, Merced cattlemen
<input checked="" type="checkbox"/>	Simon Vander Woude	Sandy Mush Mutual Water Company, dairies

Meeting Minutes



1. Welcome, Introductions, and Agenda Review
 - a. Charles Gardiner (Catalyst) welcomed the group and reviewed the agenda items for the meeting.
2. Coordinating Committee Update
 - a. Alyson Watson (Woodard & Curran) provided a summary of the previous Coordinating Committee (CC) meeting in May 2019:
 - i. CC discussed and decided not to have management areas.
 - ii. When looking to fill data gaps, identified that a new methodology to determine minimum thresholds may be needed for representative wells with limited or no historical data and/or no domestic wells within a 2-mile radius.
 - iii. Discussed minimum threshold for salinity, such as in areas where TDS is higher, it is not currently considered an undesirable result due to blending and current management practices.
 - iv. Discussion on water quality and additional constituents beyond TDS: decision was to circle back to Merced County Division of Environmental Health. The Sustainable Management Criteria chapter has been updated accordingly.
 - v. For depletions of interconnected surface water, GSAs will be developing a methodology in the next few years before the 2025 update. In the interim, groundwater level thresholds will be used.
 - vi. Discussed the management action in the water allocation framework section of the projects chapter and discovered a misunderstanding and a need for clarification on transferring water between developed and undeveloped land.
 - vii. A Special Session of the CC was called to discuss the definition of developed supply. The estimate of canal seepage is the only item used in estimated developed supply. MIUGSA requested not to change the numbers, but consider other sources in the future, such as leaking pipes/canals. The CC agreed to update the working definition.
 - viii. Question: Is recharge part of developed supply? Answer (W&C): It would be in the future, but this would be part of the other items to be investigated in the future.
 - ix. Comment: SC wants to make sure can get comments and input. Response (W&C): Should have meetings in parallel. CC are looking to SC for input. Right now, need to look at what critical input is needed to get to a Plan. Some issues will have to be delay to get draft completed and approved.
 - x. Question: For developed supply, if I overwater my almonds who does that water belong to? Answer (W&C): That is the question at hand. In some other basins undergoing adjudication, this has been determined in a way that recharge for beneficial use has been awarded back as developed supply. Otherwise, the questions are to whom (the agency or the person who purchased the water) does the credit go, how, and how to determine how much.
 - xi. Question: Does that mean we need to look at a crop level? Answer (W&C): We could set up a documentation process that considers this for establishing credit.



- xii. Comment: There's a lot more developed supply than Stevinson and MID; there are hundreds of riparian farmers from Merced creeks that are not being accounted for. Answer (W&C): What we have talked about is whether the supply can be measured. Will need to be able to measure this to count it.
 - 1. Question: What happens if a farmer has a riparian right and has a ditch and conveyance, and they have losses? Answer (W&C): This could be considered recharge, but there needs to be a mechanism to have participants estimate and document their losses.
- xiii. Comment: SC will need to be involved in who gets the water that is lost to deep percolation.
- xiv. Confirmation from group: The SC should continue meeting separately while CC is continuing planning. This will be especially important in the first few years of plan implementation as this period involves crucial decision-making topics.

3. Presentation by Woodard & Curran on GSP development

a. Next Steps in GSP Development

- i. July 22nd for next meeting, will have a Notice of Intent (NOI) that says the GSAs will consider for adoption a GSP at least 90 days following NOI (will be publishing NOI around July 19).
- ii. Schedule plan:
 - 1. Aug/early Sept: walk through comments from public with the GSAs
 - 2. Oct: putting together final draft
 - 3. Nov/Dec: adoption hearings
 - a. TIWD will adopt, MSGSA will adopt, and MIUGSA has an MOU (individual agencies will adopt)
 - 4. Jan: deadline for submitting GSP to DWR but have a small amount of buffer for this.
- iii. Question: Is the NOI a legal requirement? Answer (W&C): The GSAs do have to notify. This is similar to noticing public workshops. Each agency will also go through their notification processes in the fall.
- iv. Question: Are all GSAs about at this stage? Answer (W&C): Consultant team has only seen one GSP that is out and complete (Paso Robles).

b. Sustainable Management Criteria

- i. Alyson Watson (Woodard & Curran) reviewed current summary of sustainable management criteria MOs, URs, and MTs per sustainability indicator.
- ii. Comment: Have heard from other basins about the subsidence and a consultant from Chowchilla-Madera thought the subsidence MT in Merced was too high. Answer (W&C): We have an agreement that we are on a parallel track and that we need to continue coordination with adjacent basins, but Delta-Mendota GSAs are still coordinating internally.



1. Comment: Another Subbasin is using groundwater level (GWL) as a proxy for subsidence. Response (W&C): DWR feedback provided to Merced team indicated the need for direct subsidence measure instead.
- iii. Comment/question: Surprised that subsidence minimum threshold is not 0. Answer (W&C): The subsidence minimum threshold cannot be 0, as the Subbasin will continue to experience subsidence because this has already been set in motion (though it's expected to decrease over time).
- iv. Water Quality: Comment was received to add minimum thresholds for more constituents. The GSAs can choose to add constituents but need feedback from SC group. GSAs circled back with Division of Environmental Health and got their feedback, which was consistent with the proposed minimum threshold approach. SGMA does not specify which WQ constituents must have MTs.
- v. Question: Will other constituents be considered? Winton and Atwater have been identified as having water quality issues. Response (W&C): In the 2025 update, the GSAs will review all of the indicators and can update.
 1. Charles Gardiner (Catalyst): If there is an identified WQ problem, are you suggesting the GSAs take actions to manage this? Self-Help Enterprises (SHE): We would like GSAs to take this into account for indicators.
- vi. Leadership Counsel comment: Wondering if would be important to take into account nitrates, etc. because recharge could increase contaminants.
 1. Comment: With new domestic well testing, now all new wells have to be tested for nitrates. This could answer that question.
 2. Comment: State Water Board and DWR are going to have to figure out if it's more valuable to put more water in the ground and potentially more (prev. existing) nitrates, which comes back to the impacts and benefits of recharge. Really this occurs at the level of the state. As for what the SC and GSAs can do, they can notify, can model and show what can happen. Not sure what you can do other than notify.
 - a. Additional comment: If applicable, projects will have to go through CEQA.
 3. Comment: Who determines who gets to decide what the acceptable risk is for increased nitrates with groundwater recharge? Someone needs to figure out those policy issues. However, right now our only solution is to dilute our aquifers.
- vii. Suggestion from MSGSA: Add third element to methodology for groundwater elevation Minimum Threshold OR remove wells that may have suspect data/conditions. Third element would be to use simulated GWLs where historical data shows GWLs may have already dewatered shallowest domestic wells or where modeling shows GWL may drop below the 2015 level.
 1. Alyson Watson explained the distribution of calibration wells.
 2. Clarification from MSGSA: Did not want to be limited to factors of shallowest domestic well in 2 mile radius or the 2015 level. A third element would give more flexibility, especially if we don't know what it's going to look like. MSGSA has talked about linear demand reduction. It could be that wells continue to drop and could drop below the 2015 level. Many of the wells are occurring in the MSGSA area.
 - a. Comment: We need to include that third element, because we are limiting ourselves with the current method. Response (W&C): If there is concern



in using the model in these locations, we could instead remove these 2 wells.

3. Question and clarification from Marco at MID: MercedWRM is set up on quarter mile basis. Have already looked at existing data. Problem is that there are some stratigraphy issues in a particular area and the model results do not match some existing data. We have data analysis in the model, done in 3 dimensions, and have calibrated with adjacent wells. There are areas where we need some refinements. Funding is the issue, and we have not been allowed to charge to complete this refinement. We have done what we can for now. Model has the capacity, but we don't have the data to do that data analysis. Would be closer to a ~\$100k effort to refine the model.
 4. General consensus after discussion: Use the methodology as originally proposed but remove these two wells from representative wells and highlight need for future refinement.
- c. Monitoring Networks & Addressing Data Gaps
- i. Alyson Watson (Woodard & Curran) reviewed the status of the monitoring networks and data gaps for each sustainability indicator.
 - ii. Comment: The Rail Authority has some data/work for subsidence. We could refer to some of that.
 - iii. Comment/clarification for follow up: We could look at whether additional SJRRP control points could be added.
 - iv. Comments regarding the metering program:
 1. Comment: Should connect with ITRC to get input.
 2. Comment: Electric magnetic meters – not as expensive, have to get data myself and is accurate.
 3. Comment: Want to have flexibility in what meters can be used.
 4. Comment: Would be cheaper to be able to use existing meters and have folks go out to monitor, rather than replacing them with other meters.
 5. Comment: Always in favor of the lowest level of tech, and in favor of lowest maintenance cost.
 6. Comment: At minimum, have a minimum of “You have to have a meter. And if you don't have one, you need to get someone to go out there” (those are the people who should pay fines that pay for the staff to go out for meters).
 7. Comment: There are some subbasins down south that are not doing any metering but are using satellite data. Response: You are in that case estimating crop demand and not use, and it is not as accurate and is difficult to ground truth (have looked into and discussed).
 - v. Other issues/comments:
 1. Comment: On depleted streamflow, it's a little more complicated. Answer (W&C): We're using GWLs as a proxy. Given the location of our wells, we recognize more work needs to be done.
- d. Plan Implementation



- i. Comment: The GSP Implementation costs should have a careful thought process.
- ii. Assumptions made when estimating implementation costs:
 1. Consultant team is reaching out to GSAs on administrative costs.
 2. Assume CC would continue meeting quarterly and boards to meet bi-monthly.
 3. SC: Keep meeting? Quarterly? Term limits?
- iii. Comment: Have SC meet every other month and on the “off” month without SC, have members attend a CC meeting.
- iv. Question: What do the first few years look like? Answer (W&C): There are a lot of significant open items that will need to get refined right away.
- v. Comment: These are huge decisions that may need input soon rather than next quarter. We may want to focus on setting recurring meetings based on important topics.
- vi. Comment: Up to this point, we’ve tried to set the table and the important stuff and in the next 5 years you’ll need folks that are on the ground to provide an opinion on whether things are working.
- vii. Comments: If we meet quarterly, have to look at how many hours. Also, farmers cannot commit to an all-day meeting.
- viii. Alyson (W&C): There has to be a commitment at the CC to take input from this meeting.
- ix. Comment: Still think we’re duplicating too much by having separate SC and CC meetings. Might be better to have full scope of what everyone is thinking/perspective.
 1. Clarification: the SC group is not set up as a voting body, but with intent to get broad range of input.
- x. Feedback: What has been seen is that this feedback from the SC is presented well to the CC and is taken into consideration.
- xi. Comment: Could have SC meeting staggered to occur with a few days in between SC and CC so that this provides a window to incorporate and make a more formal giving of feedback to the CC.
- xii. Clarification from Alyson (W&C): For projects and management actions: If a GSA raises funds for a project this can increase their allocation. Assumption is that GSAs will have own financing plan.
 1. Clarification: MSGSA not implementing Prop 218 process for projects. Instead, it is a per-acre fee for GSP development, implementation, and GSA administration.

4. Public Outreach Update

- a. Charles Gardiner (Catalyst) provided a summary of the May 2019 public workshop: good discussions, not a large turnout, also provided local perspective of what was occurring in Atwater and Winton.
- b. Confirmed: Would not do a meeting in August, would have a combined GSAs meeting that we are currently scheduling with GSAs.

5. Interbasin Coordination Update

- a. Currently scheduling a meeting with Delta-Mendota for late July.



6. Public Comment on Items not on the Agenda

- a. Leadership Counsel provided a comment and letter to the Merced Subbasin GSAs. Representatives attending CC meeting communicated some of the recommendations including recommendation to set minimum thresholds based on the anti-degradation policy at the state level (per Bill 1968), with level set at best water quality since 2015. Where minimum threshold exceeds public health goals, the GSP should include a policy to strive for water quality improvements to meet relevant public health goals. This letter has been attached as an appendix to the meeting minutes.
- b. Public Comment: Need more public to show up and attend meetings. Fox26 had a program that featured the Friant Dam entities – camera panned to audience and there was no audience. No one was there. Has to be a means to get people to care.
 - i. Leadership Counsel: Really good point to get more people to attend. Have heard from folks that should have more meetings in the evenings so working folks can attend.
- c. Additional comment/input from Breanne Ramos: Secretary Sonny Purdue from the USDA will be at the Los Banos Fairgrounds in the Germino Building Town Hall from 12:30-1:30pm, June 28th.

7. Next Steps and Next Meeting

- a. Sustainable Management Criteria draft chapter expected on the 28th to the SC group, everything else in Public Draft July 19th
- b. Shared focus of July meeting (see slide).
- c. Adjourn to next meeting.

**Next Regular Meeting
July 22, 2019 at 9:30 a.m.**

Castle Conference Center, 1900 Airdrome Entry, Atwater, CA
Information also available online at mercedsgma.org

Note: If you need disability-related modification or accommodation to participate in this meeting, please contact Merced County, Community and Economic Development staff at 209-385-7654 at least 48 hours prior to the start of the meeting.



Larry Harris, Turner Island Water District GSA #1
Mike Gallo, Merced Subbasin GSA
Nic Marchini, Merced Subbasin GSA
Bob Kelley, Merced Subbasin GSA
Daniel Chavez, Merced Irrigation-Urban GSA
Justin Vinson, Merced Irrigation-Urban GSA
Stephanie Dietz, Merced Irrigation-Urban GSA

June 21st, 2019

Re: Concerns and Recommendations to Ensure that Merced Subbasin GSP Protects Vulnerable Drinking Water Users

Dear Merced Groundwater Sub-basin Coordinating Committee members,

Our organization works alongside low income communities of color in the San Joaquin Valley and the Eastern Coachella Valley to advocate for local, regional and state government entities to address their communities' needs for the basic elements that make up a safe and healthy community, including clean, safe, reliable and affordable drinking water, affordable housing, effective and safe transportation, efficient and affordable energy, green spaces, clean air, and more. We have been engaged in the Sustainable Groundwater Management Act (SGMA) implementation process because many of the communities with whom we work are dependent on groundwater for their drinking water supplies, and often have already experienced groundwater quality and supply issues. Historically, communities we work with have not been included in decision-making about their previous water resources, and their needs have not been at the forefront of such decisions. In 2012, California recognized the Human Right to Drinking Water as a statewide goal. Now, because of SGMA's requirements for a transparent and inclusive process, groundwater management under the new law has the opportunity to include disadvantaged communities in decision-making and create groundwater management plans that understand their unique vulnerabilities and are sensitive to their drinking water needs.

We are concerned that drinking water impacts and disadvantaged community input have not been adequately analyzed and incorporated into the draft GSP, and recommend the following actions to ensure that drinking water is protected, especially for the communities whose drinking water is severely at risk from groundwater management activities, and who are the least able to pay for solutions for clean and reliable drinking water.

Development of Sustainable Management Criteria



In order to “consider the interests of”¹ disadvantaged communities in developing sustainable management criteria, GSAs must address the impacts of the six sustainability indicators, engage residents of disadvantaged communities to understand their groundwater issues and needs and get input on how to shape sustainable management criteria, and analyze the impact of preliminary minimum thresholds on drinking water users before establishing minimum thresholds.

Under SGMA, *all sustainable management criteria must be based on the GSA’s determination of what will cause a “significant and unreasonable” impact on each of the six sustainability indicators.*

² This determination of what is “significant and unreasonable” must be based on the needs of all beneficial users.³ Without first consulting beneficial users, including disadvantaged communities, to understand what groundwater impacts those individuals and communities want to avoid, the GSA cannot make a valid determination of what is “significant and unreasonable”, and thus cannot set valid sustainable management criteria.

In the Merced subbasin, GSAs and consultants had initial discussions at the first few stakeholder committee meetings about the general impacts that stakeholders on the committee wanted to avoid as they developed the GSP. On August 27th, 2018, consultants began more concrete conversations on the minimum thresholds, proposing groundwater levels minimum thresholds at the lowest historical elevation, plus a buffer, unless this would dewater no more than 25% or the shallowest nearby domestic wells. Consultants also proposed a second methodology that could protect more wells by establishing the minimum threshold at the level of the shallowest well, or the 25th percentile level, whichever was higher. For groundwater quality, consultants proposed only doing a minimum threshold for total dissolved solids and not other contaminants despite their knowledge that the subbasin has water quality issues from nitrates, DBCP, 123-TCP and other contaminants⁴, and that their groundwater management activities could impact the concentration and location of those contaminants. Our organization and Self-Help Enterprises both voiced concerns with these thresholds, both in their substance and also because they were not based on a participatory determination of what stakeholders in the subbasin consider to be “significant and unreasonable” impacts from the sustainability indicators.

Subsequently, the Merced Subbasin GSAs hosted several workshops at which they asked the public for feedback on what they considered to be significant and unreasonable impacts. Our organization and Self-Help Enterprises worked with GSA consultants to ensure that workshops were accessible to disadvantaged communities, and that the presentations would go beyond presenting updates and be geared towards soliciting meaningful feedback. After the workshops and several more conversations with the Stakeholder Committee in April and May 2019, at which Leadership Counsel and Self-Help Enterprises stressed the importance of protecting drinking water for disadvantaged communities, consultants are now proposing that groundwater levels minimum thresholds be set at the depth of the shallowest well in the 2-mile radius around each monitoring well, or if the water levels are already below that level then setting

¹ Water Code sec. 10723.2

² CCR sec. 352.28(a), 354.30(b), 354.26(a)

³ CCR sec. 352.28(b)(4)

⁴ Merced Subbasin Groundwater Sustainability Plan Current and Historical Groundwater Conditions



the minimum threshold at 2015 levels. We believe public and stakeholder feedback on “significant and unreasonable” impacts to drinking water informed the improvements to the groundwater levels minimum threshold have come from, but it is still not clear what impact the 2015 levels will have on nearby drinking water users, or how many wells will not be taken into account that are outside the 2-mile radius around monitoring wells. For groundwater quality, despite our feedback that consultants look at addressing all contaminants, the GSAs still only propose a minimum threshold for total dissolved solids. There has been no meaningful discussion with the public or stakeholders about whether this will cause “significant and unreasonable” impacts to drinking water resources for beneficial users.

*In order to effectively “consider the interests of” all beneficial users, GSA committees must analyze how preliminary sustainable management criteria will affect drinking water users before reaching proposed final sustainable management criteria.*⁵ Our experience demonstrates that once recommendations are made at the committee level, it is difficult to reassess those recommendations once they reach the governing board, so such a decision cannot overlook impacts on the most vulnerable groundwater users. Before asking committees to make recommendations to GSA staff, committees must be equipped with information about how potential minimum thresholds will impact access to drinking water for domestic well owners and communities on small community water systems. To date and to the best of our knowledge, the Merced subbasin GSAs have not conducted an analysis of how drinking water will be impacted by the groundwater quality and groundwater levels minimum thresholds proposed by consultants. Specifically, we request that the GSAs ensure that an analysis be done of the impact to domestic well users and small community water systems from the proposed minimum thresholds for groundwater quality and groundwater levels. With this drinking water impact analysis, the stakeholder committee can be equipped with the necessary information to determine whether impacts from these proposed minimum thresholds will be “significant and unreasonable.”

The GSP development process must be representative of the interests of all beneficial users named in the Act. When board members do not come from disadvantaged communities or understand the unique groundwater needs of such communities, as is the case more often than not, *it is imperative for the agency to reach out to disadvantaged community members for input* before making key decisions such as recommending or proposing draft sustainable management criteria. The Merced GSAs’ consultants have worked with Leadership Counsel and Self-Help to do outreach to disadvantaged communities for workshops, and have regular calls with our organizations to coordinate outreach to disadvantaged communities. At GSA meetings, to which community residents’ schedules prevent them from coming, Leadership Counsel and Self-Help Enterprises helps provide feedback on GSP development on behalf of community residents. We are grateful that the GSA consultants actively reach out to us for suggestions on how to do such outreach, and hope that our organizations have been able to help the GSAs and

⁵ California Department of Water Resources, Sustainable Management Criteria Best Management Practices, p. 9. The GSP must discuss how groundwater conditions at a selected minimum threshold could affect beneficial uses and users. This information should be supported by a description of the beneficial uses [of] groundwater and identification of beneficial uses, which should be developed through communication, outreach, and/or engagement with parties representing those beneficial uses and users, along with any additional information the GSA used when developing the minimum threshold.



consultants learn how to do more effective outreach to disadvantaged communities in the area. As the GSAs develop their sustainable management criteria and projects and management actions, they must ***show that they are meaningfully implementing the input*** that they are receiving from disadvantaged communities and disadvantaged community advocates regarding their drinking water needs.

Groundwater Quality Minimum Threshold Recommendation

Groundwater quality has been a particularly complex issue for GSAs. In determining how they will set their sustainable management criteria for groundwater quality, GSAs have considered many factors, including the state Maximum Contaminant Levels (MCLs), other agencies monitoring and regulating groundwater contaminants in the region, areas where MCLs are already exceeded, and ways that groundwater management could impact the concentration and movement of groundwater contaminants.

We understand the complexity of setting groundwater quality SMC that are accurate, attainable and measurable, and we are eager to work with the Merced subbasin GSAs to ensure that groundwater management does not increase groundwater contamination, especially where groundwater is being used as a drinking water source. Consultants for the Merced subbasin GSAs have stated they would only be monitoring for total dissolved solids. Given the need for a concrete minimum threshold that strongly protects the human right to drinking water, we recommend that the Merced subbasin GSAs instead implement the following minimum thresholds:

- Minimum thresholds for water quality should be set at the best water quality since 2015 for each constituent.
- Where the minimum threshold exceeds the public health goal for any constituent, the GSP should, at a minimum, include a policy to strive for improvements to water quality to the point of meeting the relevant public health goal(s).

The reasoning behind these minimum thresholds is that the GSA is tasked with avoiding any undesirable results, and contamination of groundwater and other drinking water sources is a “significant and unreasonable” impact to the resource that we all need to drink, cook, bathe, grow food, and more. Accordingly, minimum thresholds must ensure protection from and prevention of contamination of groundwater and other drinking water sources. DWR instructs GSAs to look to existing groundwater regulatory programs and water quality standards.⁶ Many GSAs have proposed incorporating the existing MCLs into their minimum thresholds, however reliance on an MCL is not sufficiently protective of drinking water sources, and does not prevent contamination of our critical resources. An appropriate standard in the context of groundwater protections is the state’s anti-degradation policy, which is used by the SWRCB and regional water boards, and does not allow for further contamination of groundwater based on the best quality of the water since 1968.⁷ In the SGMA context, it is key to prevent further

⁶California Department of Water Resources, Sustainable Management Criteria Best Management Practices, p. 15.

⁷ *Asociacion de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Bd.* (2012) 210 Cal.App.4th 1255, 1268.



degradation of groundwater quality to protect drinking water. We are asking the GSA to specifically look at protecting the highest quality of groundwater achieved since 2015, based on the year that SGMA was passed. Another rule commonly used in environmental law is the precautionary principle, which prohibits activities that could cause harm when the amount of potential harm is unknown. We urge the GSA to use these two rules, combined with seeking to remediate groundwater to the public health goal, as laid out above, to ensure that groundwater management does not cause degradation of groundwater quality.

GSAs should monitor all primary drinking water contaminants, as well as chrome-6⁸, which is known has significant health effects but is undergoing a new process to set the MCL because of procedural flaws. It is widely known that the San Joaquin Valley experiences widespread water quality issues from nitrates⁹, DBCP^{10 11}, 123-TCP¹² and other contaminants, and the GSA's groundwater management activities could impact the concentration and location of those contaminants. Where relevant, GSAs should also consider monitoring for PFOA and PFOS as the EPA has established a Lifetime Health Advisory for them due to their potential impacts on drinking water systems.¹³ This should especially be considered in the Merced Subbasin as they have they have identified these as emerging contaminants in their "Current and Historical Groundwater Conditions" Draft GSP Chapter. GSAs should also monitor contaminants that are proven to increase from groundwater management, such as arsenic and uranium,¹⁴ increased contamination from recharge,¹⁵ movement of contaminant plumes from groundwater pumping, and other groundwater management activities.¹⁶

Water Quality Considerations for Groundwater Management Actions

⁸ Hausladen, Debra M., et al. "Hexavalent chromium sources and distribution in California groundwater." *Environmental science & technology* 52.15 (2018): 8242-8251.

⁹ *Addressing Nitrate in California's Drinking Water: With a Focus on Tulare Lake Basin and Salinas Valley Groundwater: Report for the State Water Resources Control Board Report to the Legislature*. Center for Watershed Sciences, University of California, Davis, 2012.

¹⁰ Peoples, S. A., et al. "A study of samples of well water collected from selected areas in California to determine the presence of DBCP and certain other pesticide residues." *Bulletin of environmental contamination and toxicology* 24.1 (1980): 611-618.

¹¹ Loague, Keith, et al. "A case study simulation of DBCP groundwater contamination in Fresno County, California 2. Transport in the saturated subsurface." *Journal of Contaminant Hydrology* 29.2 (1998): 137-163.

¹² Burow, Karen R., Walter D. Floyd, and Matthew K. Landon. "Factors affecting 1, 2, 3-trichloropropane contamination in groundwater in California." *Science of The Total Environment* 672 (2019): 324-334.

¹³ "Drinking Water Health Advisories for PFOA and PFOS." EPA, Environmental Protection Agency, www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos.

¹⁴ Jurgens, Bryant C., et al. "Effects of groundwater development on uranium: Central Valley, California, USA." *Groundwater* 48.6 (2010): 913-928.; also see "Groundwater Quality in the Sustainable Groundwater Management Act (SGMA): Scientific Factsheet on Arsenic, Uranium, and Chromium," found at

https://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/293/attachments/original/1559328800/Groundwater_Quality_in_SGMA_Scientific_factsheet_on_arsenic_uranium_and_chromium.pdf?1559328800

¹⁵ Ground Water Recharge Using Waters of Impaired Quality (1994) <https://www.nap.edu/read/4780/chapter/3>

¹⁶ Moran, T., & Belin, A. (2019). *A GUIDE TO WATER QUALITY REQUIREMENTS UNDER THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT*. Retrieved from <https://purl.stanford.edu/dw122nb4780>.



To establish causality between groundwater management activities and groundwater contamination, GSAs should look to (1) whether there has been a correlation in groundwater management activities and an increase in contamination that could result from groundwater management activities, (2) relevant scientific studies that show proven mechanisms by which causation can be established between groundwater management activities and groundwater contamination, and (3) data and samples collected showing a causal nexus in the case at hand.

Finally, in order to effectively protect drinking water resources, GSAs should establish Management Areas in areas that are more vulnerable to groundwater contamination, such as communities with many shallow wells and communities that cannot afford to install drinking water filters or treatment facilities.

Groundwater Levels Minimum Threshold Recommendation

GSAs must protect drinking water, and must consider the needs of disadvantaged communities and domestic well users in creating their GSPs. The California legislature has stated that the use of water for domestic purposes is the highest use of water,¹⁷ and passed the Human Right to Drinking Water in 2012.¹⁸ After the passage of SGMA, GSAs now have the responsibility to protect drinking water through groundwater management. If they choose to allow individuals to keep pumping at the expense of severe drinking water impacts, that is a groundwater management decision that violates their obligation to protect drinking water resources. GSAs must therefore have strong minimum thresholds that protect all drinking water wells from dewatering.

Minimum thresholds are the most pivotal measure for how a GSA will prevent impacts from a sustainability indicator. This is the point that a GSA must avoid, and could necessitate state intervention. There is some flexibility, however; for groundwater levels, DWR shows in its Sustainable Management Criteria Best Management Practices guide that it will allow a GSA to dip below its minimum threshold for groundwater levels in some cases, as long as its GSP will ensure that it comes back up and towards its measurable objective. Therefore, GSAs should strive to set minimum thresholds at levels that they seek to avoid.

GSAs should set minimum thresholds for groundwater levels at the level of the shallowest existing wells in use, with a buffer above the depth of the top of the screen. If GSAs choose not to do so, they must take on the responsibility for the wells that do go dry from this policy choice. If proposed minimum thresholds allow wells to go dry, a GSA must conduct a drinking water impact analysis to evaluate how many drinking water wells will go dry, set management areas for shallower minimum thresholds where there are more concentrated shallow domestic wells, and ensure that drinking water is protected by implementing preventive actions such as digging deeper wells and assisting with

¹⁷ Water Code sec. 106.

¹⁸ Water Code sec. 106.3



consolidation projects. It is important to note that prevention, not mitigation, is the only way to effectively protect drinking water resources.

Consultants for the Merced subbasin GSAs are currently proposing that the groundwater levels minimum thresholds be set at the depth of the shallowest well within a 2-mile radius of monitoring wells, or if the water levels are already above that level then setting the minimum threshold at 2015 levels. We request that the GSAs set all minimum thresholds at a level to provide a buffer above the depth of the top of the screen of the shallowest well. The buffer must be adequate to ensure that the shallowest well does not go dry due to a short or medium-term exceedance of the minimum threshold. The GSAs should only disregard wells that they can prove are not in use.

In setting groundwater levels minimum thresholds, GSAs should also set minimum thresholds high enough as to avoid groundwater contamination from overpumping. They should also set minimum thresholds that ensure that rural communities have equitable access to groundwater resources, and have enough for current needs and future growth. GSAs must also factor in the increased costs of pumping and installing new wells if groundwater levels decrease, and avoid additional costs in groundwater access for low income communities dependent on groundwater for drinking water resources. GSAs should also set minimum thresholds for groundwater levels that will prevent subsidence from occurring and disrupting infrastructure that is critical to the health and safety of vulnerable communities, such as private wells, roads, and homes.

Monitoring Network

Broadly, the GSAs must develop actionable steps to fill data gaps and monitor groundwater levels and groundwater quality. In order to protect drinking water resources, monitoring networks should be closely monitoring impacts on drinking water. In particular to water quality, GSAs should monitor for contaminant concentrations quarterly, and increase monitoring to every month if a water quality test detects higher contamination concentration than the previous water quality test. Testing should also robustly monitor plume migration especially given the high number of water users in the Merced subbasin.

As a result, the GSP should fund a water quality testing program for strategically identified domestic wells to complement data from small water systems and disadvantaged communities in order to fill existing data gaps as well as begin to identify contaminant plumes. To track these concerns the GSA should place monitoring wells near DACs and clusters of domestic wells.

We look forward to providing further recommendations on the monitoring network in the future.

Transparency and Inclusivity

As public agencies, GSAs are subject to the requirements of the Ralph M. Brown Act, which requires transparency of public agencies through notice of meetings and prior posting of agendas, posting of meeting minutes after meetings, and public access to meeting materials upon request by a member of



the public. In addition to Brown Act requirements, GSAs must also adhere to the specific public participation and inclusivity requirements for GSP development laid out in SGMA. SGMA expands the public participation requirements of GSAs to also “*encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan.*” (Water Code sec. 10727.8) To assist in GSAs complying with this requirement, DWR has published guidance on public notice and engagement, highlighting good practices for effective engagement. Both the letter and spirit of SGMA communicate that GSAs must conduct GSP development in an open and inclusive way.

A best practice to ensure authentic, meaningful input as required by SGMA is to post meeting materials before the meeting, so that these materials are available to the public for feedback and engagement. The Brown Act requires these materials to be made available after the meeting upon written request of the public. Paired with SGMA’s requirements for robust community engagement, the most effective way to ensure that the public is aware of what will be talked about at meetings, and to access critical GSP development information despite not being able to attend one meeting, is to post all meeting materials online before the meeting. The Merced Subbasin GSAs send out meeting notices with an agenda, and have an easily navigable website that contains meeting agendas, presentations and minutes for each meeting. However, the GSAs would facilitate more effective public engagement at the meetings if they were to post meeting presentations ahead of time, so that attendees could view the discussion items and data before the meeting.

GSAs should also ***dedicate sufficient funding to ensure meaningful, effective, and accessible engagement of the public.*** We, along with Self-Help Enterprises, have worked with the Merced subbasin GSAs’ consultants to improve outreach to disadvantaged communities. We have helped give input on several workshops, and have helped conduct outreach for those workshops. We have also kept community residents informed about GSP developments at community meetings. Self-Help has conducted translation and interpretation at meetings to ensure that Spanish-speaking residents can meaningfully engage at GSA workshops. However, we note that the Merced subbasin GSAs’ consultants said that there was not enough funding for translation. Having food at evening meetings is also key to ensuring that residents who have worked all day can come to meetings, so the GSAs should allocate funding for food at public workshops. Given the type of outreach that is necessary in order to engage disadvantaged communities, the GSAs should also hire bilingual staff or consultants who can help conduct door-to-door outreach, attend community meetings, translate materials, and interpret at all GSA meetings. In creating annual operating budgets, GSAs should prioritize funding for these necessary outreach activities.

Projects and Management Actions

Projects and Management Actions are a crucial part of the GSP, since they demonstrate how the GSA plans on attaining the sustainability goals that they have set out. Therefore, GSAs should set specific timelines and triggers for projects.



We look forward to commenting further on recommendations for projects and management actions that will protect drinking water for the most vulnerable groundwater users.

Groundwater Markets

We have engaged in many discussions around the state about groundwater markets, and continue to warn against them. Commoditizing precious drinking water resources is dangerous and inequitable, since it lets those with more purchasing power have access to more water, and more likely than not will lead to concentrations of over-pumping by large agribusinesses, leaving nearby communities without drinking water. Furthermore, given all GSAs' severe lack of data on domestic wells and water use in their service areas, and our region's lack of understanding of how a market could impact groundwater use and subsurface groundwater flows, implementing groundwater markets now would be precipitous and reckless.

We know that Merced subbasin GSAs are considering doing a groundwater market, and consultants have communicated at meetings that they will be taking at least five years to collect the data and understand the impacts of a groundwater market for the Merced subbasin. We encourage the GSAs to take time to gather extensive data on existing groundwater resources and drinking water needs and analyze the potential impacts to drinking water before considering implementation of a groundwater market. We look forward to giving more feedback on the potential of developing a groundwater market in the Merced subbasin in the future if the subbasin decides to consider such an action.

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We look forward to speaking more in depth with consultants and the coordinating committee about our recommendations. We hope that the Merced subbasin GSAs will consider the above recommendations, and hope to collaborate with the GSAs to ensure that the GSP protects the subbasin's most vulnerable drinking water users.

We are also in communication with the Department of Water Resources about current GSP development activities in the San Joaquin Valley, and hope to successfully work with GSAs, communities and DWR to ensure that groundwater management is equitable and sufficiently protective of vital drinking water resources.

Sincerely,

Leadership Council for Justice and Accountability