

Sonoma Valley Groundwater Sustainability Agency
Advisory Committee Meeting, February 11, 2020
Meeting Summary

Sonoma Valley Groundwater Sustainability Agency Advisory Committee Meeting

Meeting Notes

Date/Time: February 11, 2020 | 3:00 p.m. – 5:30 p.m.
Location: Valley of the Moon Water District Office, 19039 Bay Street, El Verano
Contact: Ann DuBay, Sonoma County Water Agency, SVGSA Administrator
 Email: Ann.DuBay@scwa.ca.gov Phone: (707) 524-8378

Action Items

Send out one-page 'leave behind' draft for AC feedback	ANN	2/21
Provide feedback to Ann regarding one-page 'leave behind' document	AC	3/10
Add 'land-use' to the meeting schedule	MARCUS	3/10
Clean up RMP maps legend to reflect AC comments	STAFF	3/10
Amend process chart to 'close the loop' and make an adaptive management cycle	STAFF	3/10
Add 'no net decrease in groundwater levels' to the AC SMC input	STAFF	3/10
Email any additional comments/ideas regarding groundwater levels' measurable objectives and minimum thresholds	AC	3/10
Send Prop 68 rural residential campaign RFQ to Vicki and Caitlin for review	ANN	2/21
Staff will provide recommendations regarding Management Areas	STAFF	3/10

Sustainable Management Criteria Summary: Additional input provided at meeting

Significant and Unreasonable Effects/Minimum Threshold Suggestions	Issues/Questions
No net decrease in groundwater levels (Petaluma Advisory Committee suggestion).	
Minimum thresholds should be related to existing wells.	Do we need to go higher than rural wells (to create a buffer for environment)? Table until we get to Groundwater-Surface water interaction. Water budget could help define this.
Minimum thresholds could be based on the rate of changes (both positive and negative) of groundwater levels.	Could be developed using future projections. The rate of change will vary depending on the RMP.

Measurable Objectives	Issues/Questions
Base measurable objectives on future projections.	Develop a two-stage process for measurable objectives (stage one could be stabilization and stage two could be increased Groundwater levels).
Management Areas	
Zones of depletion could be management areas.	Could create a soft boundary or buffer around the zones of depletion, with different actions/consequences.
Management areas could be deeper zone versus shallow zone.	

Next Meeting: March 10, 2019, 3:00 p.m. – 5:30 p.m., Valley of the Moon Water District, 19039 Bay Street, El Verano.

Sonoma GSA Website: <http://sonomavalleygroundwater.org/>

Call to Order

Roll Call was taken.
No public comment.

Chairman Allebach recapped the January Board meeting, noting that Director Rabbitt stated the Board is not looking for recommendations on Sustainable Management Criteria that are “fully baked”. Chairman Allebach followed up with the Board for more direction, and a discussion of what decisions will be made by the Board and the role of the Advisory Committee in providing research and recommendations to the Board.

In response to an Advisory Committee question, Allebach noted the Board was not critiquing the Advisory Committee work, it was a general question from the Board on the process.

Agenda Review

Facilitator Tim Parker discussed the 2020 meeting schedule, and noted the next meeting is March 10. No questions or comments from the committee.

Action Items and Meeting Summary

All action items are complete, but two: (1) The one-page draft ‘leave behind’ is not completed but staff is working on it, and hope to send out a draft in the next week.; and (2) the summary statistics on groundwater-level trends are not completed and will be provided prior to or at the next meeting.

On meeting summary, there were two comments: Page 9 – Roger Pierce should be Roger Peters and “80%” should be “50%”.

Question: At the last meeting, I asked the question if land use would come up, I look at the schedule now and don’t see it. Was it said in a different way?

Response: Future land use and potential groundwater demands will be incorporated into the groundwater flow computer model for groundwater conditions in the basin. The Proposition 68

grant includes the formation of an all-basin working group on land-use and population growth. We are still in process in developing what that work group would look like.

Question: When we get to that point, will it be a staff level recommendation or will we bring in the community voices to hear from them on land use types and see what it looks like? The city of Sonoma and the County are starting their general use processes, and it would be useful to connect with them.

Response: We will send back to staff to see how it will work out, and where it will fit.

Meeting summary was unanimously approved, with proposed edits.

Sustainable Management Criteria: Potential Representative Monitoring Point (RMP) Network

Marcus Trotta, technical staff, reviewed the working schedule and reminded the committee of terminology (see presentation). Staff is currently working on the water budget and making refinements to the groundwater flow computer model with Montgomery & Associates.

Management areas are something we feel will be best discussed as we complete the development of the SMCs, and determine what makes sense for this basin. We need to determine exactly where we will monitor for this process. SGMA has a lot of requirements on where the monitor points are.

There are two types of monitoring networks. One is the full network with all monitoring points in both shallow and deep aquifers. This shows how groundwater moves throughout the basin, trends in the basin, and storage in the basin. The other network, the Representative Monitoring Point (RMP) network is a subset of the full network and is especially important for SGMA compliance. This is where you set minimum threshold and measurable objectives. The potential RMP network development required a review of the entire existing monitor network, including assessing and developing a plan for data gaps. Additional wells could be selected for different indicators. The wells identified that we are discussing today are regarding the lowering groundwater levels SMC. Some monitoring wells can be used for more than one Sustainability Indicator.

Question: Is there well criteria to select for in determining certain SMC's? For example, in a depletion area, we might not want a monitoring well in the central area.

Response: This monitoring well network will adapt and improve over time.

Question: Is the monitoring well criteria of looking at chronic lowering of groundwater-levels the result of Sonoma Valley being categorized as a high priority basin? Is that forcing use to have that criteria?

Response: No, we will have to address all six Sustainability Indicators, not just the chronic lowering of groundwater criteria.

Mitch Buttress (technical staff) reviewed proposed RMP network for lowering of groundwater levels. Buttress noted that we are proposing both a shallow and deep network. There are a 101 wells with measurements in the last 10 years in the entire existing network. Some wells have no information on depth, screening, etc., and we are reviewing all existing wells. There is a narrow selection of wells that meet all the SGMA criteria:

- It's best to use a dedicated monitoring well (but if there aren't dedicated monitoring wells in a specific area, other types of wells in the RMP network can be included in the RMP network).

- Focus on wells that are owned by public agency (so won't lose access if ownership changes), but private wells will be considered, too.
- Look for wells that are representative of the trends, seasonal variation, etc. of other wells in the area.

Using these criteria, they have developed a proposed RMP network of 13 shallow wells and eight deep zone wells. In addition, the Prop 68 grant would provide four proposed multi-level monitoring wells. They would be added as additional points in the future. Additionally, initial data gap areas are identified on figures within the packet that would need to be filled as additional funding opportunities come up.

Question: How many wells are in the Sonoma Valley basin?

Response: There are close to 1,500 wells in Sonoma Valley.

Question: Are some of the monitoring wells in the RMP near waterways? Are they representative of the whole RMP area?

Response: Yes, the wells that were drilled by DWR for the Technical Support Services are shallow wells near Sonoma Creek. More wells are in the shallow zone than the deep.

To develop the monitoring zones, for each representative monitor points we created a polygon (shape) around that well. We came up with those using the mid-points between proposed RMPs, then refined using physical features as appropriate (for example, using Sonoma Creek to divide east/west). We have total depth information for approximately 1,100 of the approximately 1,500 known supply wells in the Subbasin. In addition to calculating the shallowest supply well depth in each monitoring zone, the 98th percentile shallowest supply well depth was calculated to remove potential outliers, and to focus on what is representative of the zones. We also calculated the average depth of supply wells in each monitoring zone. With the SGMA Prop 68 grant opportunity plus additional DWR technical support services, we hope to have construction of additional monitoring facilities to fill in data gaps.

Question: On page 10, where does it say vicinity areas?

Response: This is the mid-point in the polygon, in order to calculate statistics we had to draw a polygon for the areas.

Question: It's not a specific area?

Response: It is the whole area in the polygon (shape).

Question: When this is complete, will you be able to identify real future monitoring wells? Identify gaps in monitoring wells?

Response: Yes. We will probably want to propose future monitoring wells to help fill in data gaps.

Question: As far as deep zone RMP, I didn't see on the map where the depletion areas are. Are there wells in the areas we want them?

Response: It's in the black polygons. There are three around the perimeter of the area. We noted it as a gap area.

Question: In the shallow RMP, there is one depletion area where we would want a monitoring well. I believe the shallow zone is sustainable if we get rain. On map handout, the density shows a big wide area of the basin where much of the use is. It is important to get RMP measurements there in the thick of the areas.

Response: Yes, we looked at that. Well #328 is right in the heart of the area, one more monitoring well is proposed with the Prop 68 grant, and two wells were selected in the high density areas- we tried to cover that if we had the wells

Comment: It seems like you did a good job measuring the wells and it was scientifically rigorous. You figured out the best ones. Good job.

Comment: On the maps, the legend for the RMP with the circles that show up on the map is confusing (they show up as triangles). Also, the legend should be clearer on the declining areas. The subbasin blue line is hard to see. I'm not sure you need it.

Response: We can clean it up.

Comment: The word polygon is not a regular English word.

Question: There was discussion in the past about two earthquake faults which both run through the depletion area. Would the faults contribute to the depletion in that area? Are you doing anything in the studies to monitor on either side- any continuity or linkage in the area?

Response: Yes, we took that into consideration with Prop 68 grant. On each side of the fault we lack data.

Question: I don't see anything south of the depletion area. Do you believe that will be a projected area of analysis, and the faults play a part of the sustainability of the watershed?

Response: Yes, the potential impact from the fault is more prevalent on the east side of the fault. The Rogers Creek fault is outside the basin. The fault system out there is primarily along the boundary of the subbasin. Getting better information is a recognized data gap.

Comment: Could you please clarify the larger polygon area on well 161. Are those the only monitoring wells in the area?

Response: We didn't have a lot of choices of monitoring wells in that area. I don't think there's a ton of groundwater use in the bottom of the basin. It looks as if the polygons are bigger.

Question: Do some of the larger areas have pretty variable groundwater levels?

Response: The two proposed Prop 68 wells would cut that area in half. These areas are not set in stone, they are adaptive and will improve as we move forward.

SMC Lowering Groundwater Levels

Marcus Trotta reviewed the process flowchart and reported that staff is translating statements into representative monitoring points. Next step is running scenarios with computer models, growth model and achieve thresholds. If goals are achieved, we move forward, we run scenarios, we simulate projects and actions.

Comment: In the Overview Development of SMC flowchart slide, the last 5-year update is a way to close the circle. The arrow on the gold box could go back to review and refine model / metrics, close the loop as needed. It is a very useful adaptive management cycle. The Advisory Committee provided new input on SMC Lowering Groundwater Levels. Staff noted that the handout packets includes a table of feedback from the Advisory Committee on what could be minimum thresholds.

Question: Does this list include the comments from Petaluma Valley GSA? We discussed no net decrease in groundwater levels.

Response: No, but it can be included in running list. Please email us comments.

As we are focusing on lowering of Groundwater Levels Sustainability Indicator, we are summarizing what we saw as three general considerations that came out of initial Advisory Committee criteria on how we can set Minimum Thresholds (MT) and Measurable Objectives (MO):

1. Water supply well depth or production needs.
2. Historical conditions – lowest level or some percentile of historical low.
3. Future projected conditions with changing climate/ demands.

A comment was shared regarding surface water connection. Staff noted it will be convening a sub group to look at surface water connectivity to the environment across all three basins.

Question: So does that mean we can circle back to incorporate that information?

Response: Yes, that would be my recommendation.

Suggestion was made to use future projections for Measurable Objectives and groundwater levels in existing wells for Minimum Thresholds. Trotta recommended we look separately at areas with declining groundwater levels (generally the deeper zones) and areas where it has been stable over time (shallow zone). He showed two hydrographs, one well from shallow network point and another from the deeper zone showing declining trend.

Question: We have data for about half the wells in the basin. Should we do any analyses in terms of production? If you use percentile of depth ranges would it change? Looking into the future, do you need to change the threshold based on that?

Question: If we are looking at an RMP for one area, are we thinking of how to set criteria for that well in that area?

Response: Yes.

Comment: I'm usually able to get into the detail but feel like a deer in the headlights with all the graphs and numbers. Is there a clear direction that points to what is good for whom? Then from there we start to modulate our interest. Some will want the line higher and some lower. Having difficult time placing the tail on the donkey. Would appreciate direction from staff -- not just map and graph terms.

Response Tim Parker: I prefer it comes from staff and not the facilitator. They can provide technical input, but I think this is where we are heading. You're going to get more comfortable as we go through this process. You'll see some ideas, then see a strawman and this will go to the Board. The Board will want to have some thought on the recommendations.

Comment: It would be helpful if the Advisory Committee representatives could discuss where their stakeholder interests would like the line. We have to understand how that impacts the stakeholders.

Comment: That is the key to understand the implications of what is going to happen. I can say for the environment, higher groundwater is better.

Trotta then discussed when you might want to look at different types of criteria. For example, if you have stable groundwater levels, you might want to use groundwater levels as your measurement. You

may not want to use historic data if you don't have a lot of wells with long histories. While future projections provide flexibility and methodology for areas with little history, there are inherent uncertainties. It may make sense to set measurable objectives using criteria based on past hydrology or a past time period, or at a time of most recent drought. Different variations could use historical data to set minimum thresholds. For shallow zone, a combo of historical data and groundwater levels would make sense from a technical standpoint.

Question: If using the historic lowest level as an alternative, is there anything in the science to say the lower you get the harder it is to recover? Do you create more danger by choosing levels that low?

Response: You would want to use that criteria when you have long data sets. Then you can look at lows, see how they recover when the rain comes.

Comment: I would be curious to see a full basin versus where we are today. What is the estimate of how long it would take to get back to a full basin and where we are starting from to see undesirable conditions? Do we have an understanding of conditions we are starting out from?

Response: We can only really work with the historical data we have. For the shallow aquifer system, we are seeing that based on the connection to the creeks that the shallow aquifer is full or close to full in many areas. It's hard to go back further than our historical records and look at specific conditions.

Comment: Where are you going to have a cut-off for historical data? I'm curious about the establishment of normal baseline and how you arrived at baseline. When will we hear a description?

Response: In the next two months.

Comment: Where do you get your information from? What would happen for this scenario? (This is in El Verano, which is not recovering during rain.)

Response: We looked at deeper aquifer wells. Here we have the shallowest deep zone well 260ft. Then a 98% of shallow well nearby. Kind of same considerations. You wouldn't use this to set a Measurable Objective but a Minimum Thresholds. Using historical conditions for declining wells, we could potentially be dropping below minimum threshold.

Setting thresholds higher would require developing and funding projects and actions to meet thresholds. Using future projection conditions and using the model to see out 20 years.

Comment: I have difficulty wrapping my arms around the subject. What's the goal, what's driving it? We live in a desert. Groundwater is a luxury and maybe we should look into the general plan land use projections. Is the groundwater a viable source we can depend on? I'm driven by general plans, viticulture, it wasn't a viable industry, and has grown and protected residential growth in the valley tremendously. I would love to see projects about how much water we need in the next 20 years.

Comment: We use 5% of the water that moves in to the Pacific, maybe we should look more at that. I have a planning background and work with general plans for 200+ cities, but I think that the more I look at this seawater intrusion, it's a big deal. I think it is a red flag we need to address. I would be interested in looking at the numbers.

Response: We will certainly be having those discussions soon. We will need to include that in the models for the future. What is sustainable in the future will depend on the threshold. Are there other water sources, better ways to use water, capture water, action and projects we would look at?

Comment: To me it makes sense to have minimum thresholds set to existing wells. We should ensure that existing wells don't go dry. The conversation is in relation to future projections. Different desires, also we may disagree about what kind of minimum thresholds. How much growth should be in projections?

Comment: Thresholds, the water budget, even if cursory, are we going to have to be conservative or liberal with the budget to set a threshold? A 30,000 foot view would help.

Response: We are hoping to have a broader bracket to present at next meeting. The following meeting will have more depth.

Comment: Stewardship, this is all about stabilizing things and try to patch it up. It occurs to me, it is a steep process. That the GSA will still be here after we are all gone. The surface aquifer should try to steer toward usage, then recharge the deep, rather than keep on draining deep aquifer. For the Borrego example – conservation is a critical part. The minimum needed to support overall beneficial use, those who have straws in the aquifer need to conserve.

Comment: The elephant in the room, not on the chart is the tourism industry. Heavily promoted use on the basin. The other consideration is that people come to live and visit the community because of the environment. If the surface environment were to fail then other business would fail along with it, ag, wine, tourism would be impacted severely. Is picking a rural well going dry as an indicator or is it something higher than that? A way to maintain our general way of life. Many in Australia have water use plans to sustain the environment first and resident as a second tier user. The environment is protected for heritage. It's a principle.

Comment: I just think the right way to tackle surface water is to use the multi-basin group. Right now talking about groundwater levels and surface water it is easy to see connections.

Comment: I agree with different management areas. The basin is unique.

Question: Concern about water level is that we can't revisit in a couple years. Have we explored looking at a rate on incline/decline in level?

Response: That would be a threshold in 10 years. Maybe look at the current rate of decline, say for example a foot per year.

Comment: That is what Petaluma said, no net decrease.

Comment: I think that just restricting users will hurt more than a rate of change in an absolute level.

Question: Are you thinking about the deeper aquifer zone?

Question: For every RMP we are going to come up with a different Minimum Threshold?

Response: Each RMP will have its own unique Minimum Threshold, however, it would be nice to come up with a consistent methodology for setting those Minimum Thresholds.

Question: How do you set the boundary for depletion areas? We keep coming up against it. I suggest we set a self-made boundary. With two lines, one inside the basin and one within the band around it, then you have to show where the well would be.

Response: A boundary buffer zone?

Comment: Users would have to demonstrate whether they should be included or excluded from the depletion areas.

Tim Parker: Can you do a clarification that speaks to deeper aquifer to shallow aquifer? How many people are leaning toward different management areas?

Response: Four hands raised

Response: They are not required. Could staff come back with a recommendation?

Comment: Are management areas undesirable? Must the SMCs be the same for all of the basin and not by management area? In the management area, the well density graph tracks depletion areas in wide parts of the basin, then the east side with saline issues. These are definite management areas, plus El Verano.

Response: This is how SGMA defines Undesirable Results. If you set up different management areas, you can have different monitoring approaches and different minimum thresholds and measurable objectives, however, Undesirable Results must be defined consistently across the entire basin. I have seen management areas applied in other basins for areas that are going to need more projects and funding needs. A more common way is that areas have different GSAs and they want their own monitoring network. We will come back to the next meeting with pro/cons of different management areas.

Tim Parker: What do you need from staff? An email to the team with what you need to think about for your own constituent group. Any final comments?

Ann DuBay: On the Groundwater User Registration Program, Santa Rosa Plain Board meets Thursday to look at form. Once their comments are incorporated, a beta electronic version will be developed and shared for comments.

Trotta: Grant application is recommended for funding. \$1million for each basin to fund deep monitor wells, form work groups, PRMD well data organization. Use ad hoc group recommendations. Rural residential outreach component.

DuBay reported that she is working on an RFQ for rural residential campaign outreach – Vicki Hill and Caitlin Cornwall will help review.

Fred Allebach provided an analogy comparing 80% to New York, with the disadvantaged communities being a tiny Rhode Island, but we need to reach consensus. How are we going to finesse? I feel like Rhode Island.

Comment: I am a member at large but rural residential owner, it doesn't mean I am not interested in DACs, I am concerned about that, too, and there are rural residential well owners who are also low-income. I'm with you- you're not alone.

Adjournment

Attending

Fred Allebach, Chair, Sonoma Water appointee

Caitlin Cornwall, Vice-Chair, environmental interests

Jim Bundschu, North Bay Water District appointee
Norman Gilroy, rural residential interests
Vicki Hill, At-large community interests
Taylor Serres, Sonoma RCD appointee
Matt Stornetta, Agricultural interests
Jane Whitsett, City of Sonoma appointee
Ken Johnson, At-large community interests

Staff

Tim Parker, facilitator
Ann DuBay, administrator
Marcus Trotta, technical staff
Mitch Buttress, technical staff
Andrea Rodriguez, outreach staff