Siskiyou County Groundwater Sustainability Agency
Butte Valley Advisory Committee Meeting
MEETING SUMMARY

Meeting date/time: March 5th, 2020 I 3:00 p.m. – 6:00 p.m.
Location: Dorris City Hall, 307 S. Main St., Dorris
Key contacts:
-Matt Parker, County Natural Resources Specialist I mparker@co.siskiyou.ca.us I 530.842.8019
-Rich Wilson, Sacramento State University Senior Facilitator I r.wilson@csus.edu I 415.515.2317
-Laura Foglia PhD, U.C. Davis Technical Team Lead I lfoglia@ucdavis.edu I 530.219.5692

MEETING RECAP

- **Public Comment.** Public comments were interspersed throughout the meeting, particularly during the SGMA water quality sustainable management criteria (SMC) discussion.
- **District Staff and Other Updates.** Matt updated the committee on new member seats that are being filled, namely tribal and environmental.
- **Development of Sustainable Management Criteria – Water Quality.** Laura Foglia and Thomas Harter, of the SGMA technical team, presented and helped the committee advance its discussions on sustainable management criteria for groundwater quality in the Butte Valley groundwater basin. Committee members put forward a range of questions, comments and suggested considerations.
- **Butte Valley Groundwater Model.** Laura Foglia provided a brief presentation that focused principally on water budget estimates using the IDC demand calculator developed by DWR 20 years ago. The technical team will spend more time reviewing the groundwater flow model at the April committee meeting.

SUMMARY OF ACTION ITEMS

Action Item	*Responsible Party*	*Status/ Deadline*
Bring back maps look at and further clarify acreage for different crop types. Greg will follow-up with the county to get additional information from them.	Technical team Greg Herman	Next meeting
Follow up with key individuals in Butte Valley to further refine applied water rates for different crops.	Technical team	Next meeting
Prepare and distribute a draft meeting summary.	Rich Wilson	November

Next meeting: April 16th, 2019 from 3:00 – 5:00 pm. Due to current circumstances surrounding covid-19 the meeting will be held online with Zoom technology. More information will be forthcoming.

View Siskiyou County's groundwater website for posted meeting materials.

MEETING SUMMARY

Agenda Review

Facilitator Rich Wilson reviewed the meeting agenda then turned to GSA staff and the technical team. No questions or concerns about the agenda were expressed committee members.

Public Comment Period

At the outset, members of the public may comment on items not on the consent agenda. The public is asked to wait until the appropriate item to comment on issues directly related the current meeting agenda. No questions or comments were received by the public at this time of the meeting.

District Staff and Other Updates

Matt Parker informed the group that GSA staff will provide a recommendation on filling open Butte Valley Advisory Committee seats, namely tribal and environmental.

Development of Sustainable Management Criteria (SMC) – Water Quality

Dr. Laura Foglia provided a recap of the sustainable management criteria (SMC) development process which was introduced at the previous advisory committee meeting. She reminded the group that it will assist the technical team in building a "thermometer" (i.e., the SMC) for six sustainability indicators described in SGMA. This will entail work defining undesirable results and associated measurable objectives, thresholds to avoid, and triggers which, if reached, would suggest the system is in declining health and may require some kind of management response to stay healthy.

Water quality was introduced at the January 2020 advisory committee meeting, and remained the focus of much of the discussion at this meeting. At the prior meeting, committee members explored what an overall sustainability goal might look like, as it relates to water quality, as well as other indicators. The technical team, Laura noted, will provide policy options for setting and maintaining water quality criteria. She asked that the committee weigh in on what policy should be used, and that this input will inform what is sent to the GSA Board for consideration. Ultimately the technical team, with guidance from the advisory committee, will need to develop SMCs for each SGMA indicator, bring them forward for review and consideration by the GSA Board, and have these indicators represented in the Butte Valley Groundwater Sustainability Plan (GSP).

Dr. Thomas Harter followed Laura's introduction and began leading the water quality discussion. Work on water quality is very complex, he noted, and it's easy to get lost in technical details. He reminded the committee of its central charge to provide the technical team, and ultimately the GSA, with overall direction and input on the GSP goals and contents, including SMCs for each SGMA indicator. It is the technical team's responsibility to provide the corresponding technical details.

The advisory committee, Thomas stressed, is not expected to provide technical expertise. Rather, the committee is positioned to provide policy guidance on desired groundwater basin conditions, undesirable results to avoid, and management actions that, if or when needed, will keep the system healthy. Thomas introduced several foundational questions to explore early in developing SMCs, including for water quality:

- What data is available and what kind of monitoring network will be used to track the health of the groundwater system?
- Where we don't have monitoring, shall the GSP provide direction on where and/or how to expand and build a more comprehensive network?
- What is the desirable "temperature" for the water quality SMC "thermometer"? What "temperature" is considered "too high", i.e., constitutes an undesirable result?
- What does it mean if the thermometer (i.e., the SMC) shows the temperature is getting too high (i.e., system health is declining)?

Thomas began showing maps and explaining how the technical team used available well data to produce a list of water quality constituents for consideration by the advisory committee. He described two primary sources ("monitoring networks") of available data:

- public supply wells and
- monitoring wells at known contamination sites.

He then described the SWRCB GAMA site as a useful resource that compiles water quality data from a wide range of sources and compiles it in one location that is accessible to the public. This site, he noted, is where the technical team acquired much of the information that it is now presented to the committee.

At the prior meeting, the advisory committee looked at available Butte Valley water quality data and brainstormed an initial list of water quality constituents that are important to the group. The technical team was then tasked to prepare a shortened list based on their concerns (i.e., with respect to their respective stakeholder groups) what's important to monitor and manage in the valley. In addition to reviewing available data on the GAMA site, the technical team, Thomas noted, also looked at recently submitted GSPs from around the state to see what water quality parameters these plans are considering.

Prior to opening up group discussion, Thomas described the role and responsibility of various state and federal agencies that already have legal mandates related to water quality. He used an example from Orange County to describe the role of the GSA vis-à-vis these existing regulatory agencies and how the local GSA can play a proactive role in monitoring the local groundwater basin, measuring the system's "health", and seeking guidance or support, when needed, from other agencies which have enforcement or other capabilities that the GSA may not possess or necessarily hold primary responsibilities. Seen in this context, he noted, the GSA can serve an important role as a local steward of groundwater resources in Butte valley.

Thomas summarized by asking the committee how well it understands the presented material. The technical team, he noted, would like to secure additional input on how to develop a locally appropriate and effective water quality SMC for Shasta valley. Committee members offered a range of questions and comments. The technical team provided most responses, with, at times, GSA staff and the local Water Board staff weighing in on the discussion.

- Comment: What do heavily impacted GSPs look like. What have they concluded and what are they doing to move forward?
    - Response: Regarding water quality constituents, it depends partly on how much data is available. For example, one GSP the technical team looked at had a sparse data set. They decided to look at nitrate moving forward but they don't currently have data so couldn't set an SMC. Another area, Salinas Valley, has a public water supply network, monitoring wells at hazardous waste sites, but they also have networks from ag and domestic wells. They have a list of about 12 constituents and for all of these they developed SMCs. They are a basin with a rich data set, and they included these four existing monitoring networks (public/hazardous waste site/ag/domestic) in their plan. Butte valley, in contrast, does not have an existing ag or domestic well monitoring network that they have there.
- Comment: I suggest the technical team look at Ridgecrest or Owens Valley. They are high deserts, much like this valley.
- Question: Is there a wide range in how GSPs are looking at their issues?
    - Response: Yes, it's all over the place.
    - Additional question: Who makes the decision to determine if their work is sufficient?
    - Response: GSPs are submitted to DWR for review and evaluation. Recently submitted GPS are currently in a public comment period. DWR will consider comments and take a deep look at Plans and decide how to move forward.
- Question: How are you going to control naturally occurring elements?
    - Response: Some naturally occurring constituents get mobilized in the subsurface because of human activities. It's a matter of being aware of them as part of outreach, planning and management efforts. The GSA is the local steward of groundwater quality. Its main role is to promote awareness of these issues. And if doing recharge, for example, to consider whether these groundwater management projects affect any constituents of concern, including naturally occurring elements.
- Comment: In looking at the well data you are presenting, it seems 30 years of percolation is enough to let things go through system. In old days stuff like nitrate was cheap, so people applied it liberally and then used a lot of water to push it through.

Public comment

- Question: If the state stepped in to monitor, is there a bill-to-pay coming from the state?

  - Response: Yes, it is my understanding it comes from the state. For example, the Regional Water Quality Control Board has a hierarchy of enforcement tools. If nothing is done, polluters may receive a cease and desist order.

Thomas briefly described how the technical team narrowed down a list of constituents to consider in Butte valley. He reviewed each individual constituent, then described if and why it may be important to consider in the Butte Valley GSP. He reminded the group that the local GSA is like the steward of groundwater in Siskiyou County, including Butte Valley. The GSA has a responsibility to look out for any problems. So the GSA is less an enforcement agency and more a proactive steward: watch the system, conduct studies as needed, and then, also as needed, get other agencies involved. He then opened up group discussion.

- Question: Can we have criteria for drinking water and separate criteria that are used for crop irrigation?
  - Response: Yes, in relation to setting your triggers and thresholds, and perhaps based on what type of wells are in a particular area.
  - Additional question: So Ag. wouldn't be held to a drinking water threshold? If an area is just for irrigation and not drinking water you could have different thresholds, measurable objectives and triggers?
  - Response: SGMA allows for different management zones. Also, SGMA does not override any existing SWRCB water quality or federal water quality regulations.
  - Question: If there is a geographic area that is primarily Ag but just a few drinking water wells, does everyone in that area have to abide by drinking water standards?
  - Response: Yes, this is how SWRCB sees it. One possibility is to say the GSA will attempt to secure funding to monitor and allow wells to maintain water quality.
  - Comment: Drinking water will take precedence no matter what we do.
- Comment: When a well is on, it creates suction. Then you have a nearby septic system. A challenge for us is that Ag gets blamed but you actually have all these individual septic systems creating a problem.

Thomas paused at this stage and asked the committee how well they understand the role of the GSA. He also encouraged the committee to think about actions or management responses when contaminants get to a trigger or threshold level, and to ensure that potential actions are in the GSP. Taking this approach can provide the GSA a mechanism to raise funds to, when necessary or desired, conduct appropriate investigations/studies. Open group discussion again followed.

- Comment: I assume our GSP will include some existing standards.
- Comment/question: Southern California valleys are more impacted than any place in Butte Valley. How are these people being served?
  - Response: Some maximum contaminant load (MCL) standards are adjusted, meaning the MCL is set to a lower level than where it historically was. Sometimes there was no MCL before at all. That is one issue. On nitrate, the

state and regional water boards issue discharge requirements/permits, as the valleys you mention all have nitrate issues and are following regulatory programs.
    - Additional comment: Based on the data you are showing about nitrate in Butte Valley , it appears that the issues from 30 years ago are diminishing. Perhaps this suggests we may be in reasonably good shape.
- Comment: During certain times of year nitrate levels can rise or fall when we get rain. So when setting up our monitoring network, we should consider this and talk about when we want to conduct monitoring.

Building on this last comment, Thomas inquired as to whether the committee thinks it should work with the existing monitoring network (public supply wells, hazardous waste site monitoring wells, "Option A") or build out this existing network and add an expanded network ("Option B"). One proposal, he noted, could be to have a network that spans the area that include both domestic and ag wells and thereby provide a cross section of data. Measure once a year. Maybe twice a year for nitrate. Or maybe every two or three years. Generally, the committee expressed support for building out the monitoring network. A range of questions and comments interspersed the conversation:

- Question: Are wells currently being monitored at Mt. Hebron?
    - Response: Yes.
- Comment: Water sample tests can be done on individual wells. Have to look at everything. Test sample range from between $200-$400.
    - Response: The GSA could perhaps seek out a grant to cover costs of a network of 10-12 over five years
    - Discussion: Guidance from committee is that the GSP recommend at least 5-10 new monitoring wells (this could be existing ag or domestic wells) that are monitored at regular intervals and make up a new, additional network.
- Question from GSA staff: How does the committee feel about illegal cannabis growing? It's become a big issue in Shasta. Some on that committee are asking the GSA to do long-term monitoring over time of chemicals that are employed in the cannabis industry. Impacts may not be showing up now, but many feel it is important to monitor.

- Comment: Where most of this is happening in this community is outside the purview of this GSA.
    - Response (GSA staff): The GSA can still monitor what's coming into the basin, especially to protect the basin. We need a baseline and ability to inform SWRCB if we are seeing impacts from illegal contaminants.
    - Additional response (technical team): GSP could frame what are projects and management actions that are being put in place when you find there is an issue. But it's not GSA's duty to clean up contamination.
- Comment: When state granted GSAs money to do all these activities, we never see a financial report?

  - Response: The GSA would be happy to bring a budget of what's gone on. Though what could be shown at any given meeting would be from a few months ago.
- Comment: I'd like to make sure we don't get penalized down the road for not implementing a plan for which we don't have the proper funds. Don't want to develop a plan that commits us to a monetary expenditure. Additional committee member comment: But we also need to include what we want to get done in order to be able to access needed funds.

GSA staff Matt Parker checked in to see if the technical team secured the input in need to prepare draft water quality indicators. Thomas and Laura replied that the MCL thresholds for the constituents of concern could be used. They further suggested to perhaps have a trigger at about 80% of MCL, and also consider long-term trends (i.e., if a trend is upward, that's also a threshold and spurs action/response). The technical team suggests to look at both numbers (concentration) and trends (in concentration). Additional questions and comments followed:

- Question: Do we skew data to go with an average?
  - Response: Complicated question not easy to answer.

- Comment: MCLs seem to be oriented towards drinking water. One of our options would be to supply 200 people with bottled water and raise the MCLs for farming operations. This might be a wise option rather than put multi-million dollar farming operations out of business.
  - Response: Regulatory authority over polluters resides within the responsibilities of the Regional and State Water Boards. As mentioned earlier, the GSP may act as a facilitator between parties (polluter, state and federal agencies) in its stewardship role for groundwater quality.

- Question/comment: How do we know that exceedance is not based on some individual's septic tanks? Ag could get hurt even if it's not the cause of the problem. Underlying parameters should be put in GSP that take these kinds of things into consideration.
  - Response: The idea is to first understand a problem before coming to unfounded decisions on how to fix it. The GSA would first want to look at the cause of the problem. Perhaps GSA undertakes study to figure out source and then take appropriate actions in engaging with potential polluters and relevant agencies.
  - Additional comment: Thinking of "Option B", perhaps for nitrate you expand the network and put monitoring wells outside of septic areas to see what's happening in those areas. Others agree wells are needed in these other areas.
- Comment: Last time, the committee raised the idea of monitoring sodium because of crops for crops.
  - Response: Technical team took it out because there was no data and because measuring TDS typically provides a good indication whether sodium may or may not be an issue.

- GSA staff comment: Having a short list of constituents doesn't have to be a limiting factor. If something else becomes a concern, it can be added and monitored.
- Question: Is the county going to always be seeking grants?
    - GSA staff comment: Yes. The county doesn't want to charge folks for SGMA related work, so we're always going to be looking for funding.
- Comment: For setting thresholds, "Option D" (using average/medians and trends) would be my choice. But I would indicate for every issue that parameters are required to make a decision (i.e. more specific than just looking at medians and averages).
    - Response: Again, GSA monitors and once some problem is identified, an action can be taken, with the first step being work (e.g., a study or review) to better understand the situation and then decide what management response is warranted.
- Question: Does it just have to be one option? Seems we need to draw from various options? We don't need to shorten the list, we just need to prioritize the list. Right now we know nitrate is a concern. The septic system is probably a huge contributor.
    - Question from GSA staff: So define how and when we monitor it?
        - Response from committee member: Yes.

Thomas and Laura at this stage checked in with the committee to see if there were any other questions, concerns, ideas or suggestions?

- Question: Did we decide the frequency of monitoring?
    - Response: Hearing from group monitor nitrate on more frequent basis. At least on an annual basis.
        - Committee member response: That's fine but you need to pick the right time. Don't do when there is runoff.
- Comment: Perhaps it's important to always measure when the groundwater level is the same.
    - Response: Maybe when we measure groundwater levels we could assess quality at the same time.

- Comment: We still need to talk about what we do if triggers or thresholds are exceeded.
    - Response: Perhaps do initial studies, identify vulnerabilities, address in a step-by step-process to better understand the problem.

Butte Valley Groundwater Model

Laura noted that the technical team will spend more time reviewing the groundwater flow model at the April committee meeting. The brief presentation at this meeting focused principally on budget estimates using the IDC demand calculator developed by DWR 20 years ago. IDC is a component of this model created to understand how much water is used for irrigation and pumping. The technical team has used IDC to look at water budgets for each field in the basin, in total about 40,000 acres of irrigated lands. Committee members put forward a range of questions and comments. Members commonly built on each other's comments.

- Question: How did you determine irrigation levels for strawberries.
    - Response: Initially the technical team received feedback that estimate were low, so the technical team conducted outreach calls with key people in the valley to help adjust figures.
    - Additional comment: Seems you strawberry acreage is too high. It's never exceeded 4,700 acres. This year it may not be more than 3,000 acres.
    - Additional comment: It takes close to four acre feet of water to grow strawberries, so your estimate is likely still too low.
    - Additional comment: It's important to remember that just because a farm has a certain amount of acreage, it doesn't mean they are growing on all those acres.
- Comment/question: Alfalfa acreage might also be high. A past water budget you presented showed 32 acre for alfalfa, now we see 23? How and why did this occur?
    - Response: Satellite data was used in the past. This data doesn't make any distinction between different crop types. The technical team doesn't yet have more assessment via different methods since then. We may need additional information on acreage from committee members and the interested public.
- Question: Isn't there a county report that provides all this information?
    - Other committee member response: There are different offices that look at different parts of the county. If you can get the different data before it is combined then it's easier to use for something like this. Greg will follow-up and call the county about this.

- Comment: You're amount of applied water estimates are also low on garlic and onions.
- Question (Thomas Harter): Are the applied estimates for grain and hay right?
    - Committee member response: It's probably less than what you have. We only irrigate maybe twice.
    - Additional member response: Grain may not be too far off. Grain and hay may be more similar to alfalfa. You have to take into account the rainfall difference in Scott valley and Butte valley.
- Question (Thomas Harter): Did the technical team get the applied water estimates on carrots about right?
    - Committee member response: It's maybe 32-36 inches total.

A number of additional questions surfaced during the course of the presentation around where water comes from and goes in the system, declining water tables, how to show trends, and how the model will improve understanding of the system. Laura concluded by noting that the technical team will have the first version of the refined model to share with the committee at its April meeting.

Butte Valley Project Review

Time ran short before the committee could discuss the final agenda item, Butte projects, so this will be discussed at a later meeting.

Siskiyou County Groundwater Sustainability Agency
Butte Valley Advisory Committee Meeting
MEETING SUMMARY

MEETING ATTENDEES

Advisory Committee Members
Steve Albaugh, Private pumper
Don Crawford, Private pumper
Greg Herman, Private pumper
Patrick Graham, CDFW Butte Valley Wildlife Refuge
Steve Lutz, Butte Valley Irrigation District
Carol Mckay, City of Dorris, Municipal/City
Richard Nelson (Chair), Private pumper
Don Bowen (Vice Chair), Residential

Absent Committee Members

District Staff
Matt Parker, County of Siskiyou Natural Resources Specialist

Technical Team
Dr. Laura Foglia, UC Davis/Larry Walker Associates
Dr. Thomas Harter, UC Davis/Larry Walker Associates

Facilitator
Rich Wilson, Seatone Consulting

Members of the public
No public attendees signed the sign in sheet