

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

Meeting date/time: January 28, 2021/ 3:00 – 6:00 pm

Location: Zoom Online Platform

Key contacts:

-Matt Parker, County Natural Resources Specialist, mparker@co.siskiyou.ca.us 530.842.8019

-Katie Duncan, Stantec Consulting – Facilitator. katie.duncan@stantec.com 916-418-8245

-Laura Foglia PhD, U.C. Davis Technical Team Lead, lfoglia@ucdavis.edu 530.219.5692

MEETING RECAP

- Approval of Past Meeting Summary. The committee provided conditional approval of the October meeting summary for posting on the Siskiyou County SGMA website. Note there was not quorum at the November meeting and so that meeting summary is purely informational and will not be approved or posted.
- **Public Comment.** No public comments were provided.
- **District Staff and Other Announcements:** Matt Parker provided updates on GSP Development and other SGMA related items. Pat Vellines provided updates from DWR.
- **Presentation and Discussion of SMCs in Butte Valley.** Dr. Thomas Harter and Bill Rice presented on potential SMC approach, proposed monitoring network, and projects and management actions in Butte Valley.

SUMMARY OF ACTION ITEMS

<i>Action Item</i>	<i>Responsible Party</i>	<i>Status/Deadline</i>
Technical team to follow-up regarding how current groundwater levels will be defined for minimum threshold.	Technical	February
Perform hand inventory of public supply wells in basin and confirm data.	Technical Team	February
Confirm ET methodology	Technical Team	February
Technical team to continue to refine SMC proposal and PMAs	Technical Team	February

Next Meeting: February 25, 2021. Due to current circumstances surrounding covid-19 the meeting will be held online with Zoom technology.

View [Siskiyou County's groundwater website](#) for posted meeting materials.

MEETING SUMMARY

Agenda Review and Approval of Past Meeting Summary

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The facilitator welcomed all participants and thanked attendees for their patience with ongoing use of Zoom as alternative meeting platform during the pandemic. She secured consent from committee members to post the October meeting summary on the county's SGMA webpage. No committee members put forward questions or expressed concerns about the agenda at the outset of the meeting.

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 public comments were provided at this time.

District Staff and Other Updates

- Matt Parker reviewed key GSP milestones and overall schedule. In the coming months it will be important for the Advisory Committee to come to consensus on a range of important GSP elements.
- Matt Parker provided an update on the County's SGMA Legal Counsel RFQ process. The County received a number of applications and is currently in the processing of vetting and approving their chosen candidate.
- Pat Vellines provided updates from DWR including information on future SGMA funding for medium-priority basins, future Airborne Electromagnetic (AEM) surveys over the Siskiyou County Basins, and ongoing in other SGMA basins.
- Katie Duncan provided an overview of Advisory Committee roles, responsibilities, and processes.

Presentation and Discussion of SMCs in Butte Valley

Dr. Thomas Harter and Bill Rice presented on the proposed monitoring network, potential groundwater SMCs in Butte Valley, and potential projects and management actions (PMAs).

For reference, if not defined in comment/response notes:

MT = minimum threshold

MO = measurable objective

PMA = project and management actions

RMP = representative monitoring points

Bill Rice presented the proposed Butte Valley Representative Monitoring Points (RMP). In developing the RMP network many things must be considered including historical vs new groundwater wells, the quality of historical data, location of wells, and available well construction data. For Butte Valley between 4 and 8 wells (per 100 square miles) should be included in the network. Bill went on to describe RMP locations and types and showed hydrographs for proposed wells to be included. It was noted that the well data is pretty consistent and it's important to observe what wells have levels that have sustained or declined.

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The overarching goal is to level off groundwater levels and stop the long-term decline in groundwater trends.

Comment: For Butte Valley we should be looking at the average.

Response: DWR Recognizes fluctuations in concept. Important to address where we set MT and MO.

Comment: There are certain parts of the valley more prone to wet/dry conditions and more extreme.

Response: Minimum thresholds, triggers, and measurable objectives will be set separately for each well or each RMP. So entire basin does not have to be reactive to the worst condition. Formulate management actions and triggers in design projects and management actions to be flexible to react to single well or combination of wells.

The technical team explained the base measurement year – SGMA addresses undesirable results (URs) after Jan 2015. Base period will be 25 year period prior to 2015. Starts late 1980s to current. Driver for minimum threshold is undesirable result.

Comment: Concern using 2015 and data for the last 25 years. Water wars started in 2000 and the water elevation was different (a foot higher than today's levels). Crop rotation changed and drought occurred. The reference year is very important.

The technical team quickly reviewed the conceptual flow dynamics of the basin and summarized precipitation and ET data. There has been some decline in recharge and increase in pumping that has contributed to decline in water level. The transient model will help us determine if pumping East and North affect decline of water levels in Butte.

The Butte Valley and Tule Lake technical teams met this week. In principle both technical teams agree with the overall conceptual model understanding and have agreed to continue to exchange information.

Comment: If last 5 years trends have flattened, can you determine why that is?

Response: Yes, that is what we are trying to achieve. Model area also includes areas of high recharge. Transient model can adjust water levels to east and see how that affects levels in Butte Valley.

Comment: Important what we hear from Tule Lake. Lower Klamath last 10 years has been affecting water levels on Lower Lake.

Response: We met with manager from Lower Klamath. Much less surface water from Lower Tule in last few years. One well in Lower Klamath not showing much change. Springs on east side of mahogany sides tend to be much drier. He is sharing some data. Don Bowen can help with contacts.

The technical team presented on the proposed groundwater level SMC. Arresting decline in water level is critical. The minimum threshold definition is driven by undesirable result. Well

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construction records for Butte Valley were analyzed and well depths were plotted in a distribution graph. The graph shows the percent of wells that go dry by depth below current levels. If groundwater drops 50 feet, about 22% of ag wells, 45% of domestic well, and 75% public supply wells will go dry. Currently there are only four public supply wells, and the technical team needs to do an inventory by hand to confirm data set.

As a note: A dry well is defined if water levels fall within 20 feet of the bottom the screen for agricultural wells and within 50 feet of the bottom of the screen for domestic wells. And so the numbers shown represent the least amount of well outages that can be expected.

The technical team explained that one of the constraints for setting the minimum threshold is that water needs to flow toward the Lower Klamath and so water levels need to be much higher than 4080 feet.

For compliance with the minimum threshold, a single exceedance is acceptable however a long-term trend of exceedance will be an issue. This compliance is also dependent on projects coming online. Objective needs to be achieved by 2042.

The technical team reviewed the proposed water level SMC and SMC thermometer. Minimum threshold is set by considering how many wells go dry and not having an undesirable impact on the neighboring basin. Looking at well logs, there is an observed downward trend of .5-.7 feet per year. The measurable objective could be set at 5-10 feet below current levels. This would only cause a minimum number of well outages. A “soft landing” minimum threshold could be set at 10-15 feet below current levels. A minimum threshold set at 0-30 feet below current levels may cause well outages and there would be associated pumping costs. The option of setting the MT at 50 feet below current groundwater levels threshold is a preliminary estimate of the maximum decline necessary for maintaining some flows to the Lower Klamath.

With water level dropping, pumping cannot increase. Management actions will be necessary. One management action is to set a cap on pumping. Compliance with such cap could be determined by ensuring that the current level of ET from the last 5-10 years does not further increase.

With a pumping cap in place, water levels stabilize. However, if there are consecutive dry years where less recharge enters Butte Valley, water levels would also be declining. Currently the steady state model indicates that groundwater levels might be 10 feet lower during dry periods, but the transient model will tell us more. For dropping water levels due to less recharge, this would need to be counter balanced with less pumping. Or water levels can be allowed to drop and a funding mechanism could be identified to mitigate well outages.

Building on the discussion, the technical team and Matt Parker introduced a list of potential projects and management actions (PMAs) that could be implemented in Butte Valley.

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Management actions will allow the basin to achieve sustainable goals by 2042. PMAs can be specific for certain parts of the basin. *The PMA discussion was dynamic and so comments are categorized by Technical Team (TT), Advisory Committee (AC), or Public.*

Discussion on PMAs (mostly Cap on consumptive water use)

TT: Will production in valley be increasing? A management action can be defined to limit or control growth in a number of ways. Look towards future to set parameters.

Public: Agricultural users plan to increase acreage from current levels. As private land owners it was assumed we could choose to do what we want on our property. Dry land is being converted to irrigated production.

AC: Consumptive use defined in terms of ET. City of Dorris declined in population (likely most of Butte Valley), increase in new agriculturists that don't fall in boundary of plan including hay growers, nursery production – consumptive water or ET limitations need to be more specific. If idling land – what does that look like at the county level for taxes?

TT: If MT is exceeded, the GSP must include how the valley addresses continued declining levels. The PMA list is a high level conceptual list based on discussions during meetings or off line. Not expansive. General ideas. Projects to increase supply but also projects to decrease demand. What is the best option for community? How is this going to get implemented – Key point. We need to have resources, capacity and acceptance to implement these projects.

AC: You have to have buy in.

TT: Some actions related to land use change can occur gradually – can be introduced over a long time period.

Public: The significant impact/factor/UR for Klamath Basin water level that needs to be considered limits the basin.

AC: Important to add flexibility for basin performance.

AC: Looking at the PMA list, what is change in diversion point of Butte Creek?

TT: Anything above 25 cfs is diverted, we want better understanding of how that is affecting Butte Valley. Originally this diversion was used as a flood mitigation method. Butte Valley Irrigation district has an appropriation for the water – SW right. This can be modeled.

AC: For the minimum threshold set below a certain depth below current levels is that based on the spring measurement, fall measurement, average, average of last three years.

TT: Good question, the technical team will look into what current measurement that will be set at.

AC: ET is lagging indicator.

TT: This is a detail that needs to be discussed. First come to consensus that a cap in some form is acceptable/helpful to meet MO. How that is implemented is subsequent discussion.

AC: If water levels are rising – provision that use can expand. But also understanding some of these investments are long term investments. How to manage cap needs to be decided. Cap should consider land use decisions and provide land use stability.

AC: Has there been a sunset placed on management actions?

TT: Nothing in legislation that projects/management actions cannot be re-evaluated.

AC: Have satellite measurements been compared to CIMIS station measurements?

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TT: There have been other comparisons. Three or four methods for which satellite data can be evaluate for quantifying ET. +/- 10-20%. UC Davis looked at difference in Delta (5-20% difference). Fairly wide range, cap would require that a single method is accepted to measure ET. Absolute number may not be the same as CIMIS station. Agree on method to provide consistent data rather than absolute data, and then measure and evaluate trend.

AC: There needs to be transparency about assumptions.

AC: From a regulatory perspective – if we don't meet the limit, what authority does GSA have, water markets or straight cap on pumping.

TT: If basin is not in compliance, DWR puts basin into probationary management from state water board. State water board with put meters on every well and make determination of their own for how much groundwater pumping needs to be reduced.

AC: Add flexibility so regulatory does not mandate limits. Make sure there is an allowance for planned growth and avoid economic burden.

AC: This really comes down to where we set MT. Set the minimum threshold at a point we can operate above.

AC: Does DWR take average of high and low year as current level or 3 year average?

TT: DWR is looking at our definition. We can use 3 year moving average (or longer).

The technical team and facilitator provided closing comments and thanked everyone for their attention and thoughtful discussion. There was an emphasis on that this is an adaptive management process and that there is plenty of opportunity to not only build in flexibility but also the opportunity to reevaluate and revise every 5 years.

Advisory Committee Members

Carol Mckay, City of Dorris, Municipal/City
Don Crawford, Private pumper
Patrick Graham, CDFW Butte Valley Wildlife Refuge
Richard Nelson (Chair), Private pumper
Steve Lutz, Butte Valley Irrigation District
Jeffrey Volberg, Environmental
Howard Wynant, Tribal
Don Bowen (Vice Chair), Residential

Absent Committee Members

Steve Albaugh, Private pumper
Greg Herman, Private pumper

District Staff

Matt Parker, County of Siskiyou Natural Resources Specialist

Agency Staff

Janae Scruggs, CDFW

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Chris Watt, Regional Water Quality Control Board

DWR Staff

Pat Vellines

Technical Team

Dr. Laura Foglia, UC Davis/Larry Walker Associates

Bill Rice, UC Davis/Larry Walker Associates

Dr. Thomas Harter, UC Davis/Larry Walker Associates

Facilitator

Katie Duncan, Stantec

Members of the public

John Bennett

Eric Levesque

Doug Thomas (sitting in for Steve Albaugh)