

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

Meeting date/time: April 16<sup>th</sup>, 2020 | 3:00 p.m. – 5:00 p.m.

Location: Zoom Online Platform

Key contacts:

-Matt Parker, County Natural Resources Specialist | [mparker@co.siskiyou.ca.us](mailto:mparker@co.siskiyou.ca.us) | 530.842.8019

-Rich Wilson, Seatone Consulting Senior Facilitator | [r.wilson@csus.edu](mailto:r.wilson@csus.edu) | 415.515.2317

-Laura Foglia PhD, U.C. Davis Technical Team Lead | [lfoglia@ucdavis.edu](mailto:lfoglia@ucdavis.edu) | 530.219.5692

**MEETING RECAP**

- **Approval of Past Meeting Summary.** The committee approved its March meeting summary for posting on the Siskiyou County SGMA website.
- **Public Comment.** A range of public comments interspersed the discussion, most during the course of the presentations.
- **District Staff and Other Updates.** Matt Parker noted that installation of soil moisture sensors and continuous well monitoring instruments, under the Bureau of Reclamation (BOR) grant, is briefly delayed until completion of an environmental compliance document by BOR.
- **Review of the Groundwater System in Butte Valley.** Bill Rice, with support from other members of the local SGMA technical team, covered a range of topics to assist committee members and interested parties to better understand the geology and groundwater conditions in Butte Valley. A wide range of questions and comments interspersed the various sections of the presentation.

**SUMMARY OF ACTION ITEMS**

<i>Action Item</i>	<i>Responsible Party</i>	<i>Status/Deadline</i>
Follow-up to secure additional volunteer wells for the groundwater monitoring network	Bill Rice	ASAP
Identify and share any time stamped aerial photos of Butte Valley from previous decades	Committee members; interested parties	Ongoing
Talk in between meetings to assess possible slight subsidence near Dorris.	Bill Rice and John Bennett	Prior to May meeting
Put together initial model results to share with committee members and interested parties	Laura Foglia	Prior to May meeting
Follow up with Josh Root regarding using well for monitoring	Matt Parker	ASAP

**Next Meeting:** May 28<sup>th</sup>, 2020. Due to current circumstances the meeting may again be held online with Zoom technology. More information is forthcoming.

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

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

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**Agenda Review and Approval of Past Meeting Summary**

Facilitator Rich Wilson welcomed all participants to Zoom, a new online platform, which will be used temporarily being used during the covid-19 shelter in place rule. He thanked participants for calling in and reviewed some basic features of the system which would be used during the meeting. He then secured consent from committee members to finalize and post the March meeting summary on the county's SGMA webpage. No questions or concerns about the agenda were expressed at the outset by 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 comments were offered by the public during this period.

**District Staff and Other Updates**

Matt Parker noted that the county's awarded Bureau of Reclamation grant cannot begin installation of soil moisture sensors and continuous well monitoring instruments until an environmental compliance document is completed by BOR, which is expected to occur by June 1<sup>st</sup>. Installations have been temporarily halted.

Matt also introduced two new Advisory Committee members, Mr. Howard Wynant and Mr. Jeff Volberg. Mr. Wynant, a member of the Shasta Nation, will fill the tribal seat. Mr. Volberg, with California Waterfowl, will fill the environmental seat.

**Review of the Groundwater System in Butte Valley**

Dr. Laura Foglia, technical team lead in Butte Valley, introduced a multi-part presentation, focused on the geology of the system/representation in the USGS model, the number and types of wells in Butte valley, and continuous well measurements. She noted that, with policy guidance provided by the Advisory Committee at prior meetings, the technical team is working to develop the water quality sustainable management criteria. She then turned to Bill Rice, who introduced and reviewed key elements of the presentation:

- Land use – update on feedback for crop acreage
- Subsidence – review of 2018 data, update with 2019 data
- Geology – how the model is made
- Aquifer thickness – initial estimates
- Continuous and periodic monitoring wells
- Hydrographs and contour maps

Bill proceeded through each element of the presentation, illustrating key concepts and understanding of the system with maps and graphs. He generally paused after each section to

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

open up discussion, solicit questions and comments, and provide feedback when appropriate. Comments and questions, and at times responses, centered on the following:

*Land use*

- Question: Why are we using something other than the Siskiyou County Agriculture commissioner land use data?
  - Response: After 2010 the data are not available or updated at the level of single basin, but just for the entire County as a whole. A committee member further noted that Ag commissioner received a new software package that has not been learned by staff which would break out the land use data by basin. Expected this will be possible in the future.
  - Question by Thomas Harter (SGMA technical team): It seems there is a discrepancy with total irrigated land numbers changing year to year?
    - Committee member response: Sometimes during dry years satellite data shows land fallowed when hay is actually being grow.
- Comment/question: My main interest is in the CDFA Meiss Lake Wildlife Area. How will this area be incorporated in the SGMA process?
  - Response: DWR's IDC tool doesn't have good wetland capabilities. Assessment of wetlands requires different tools that we will be working with.
- Question: How do you average or use all varying data in estimating overall land use totals?
  - Response: Bill reviewed procedures for handling the land use calculations. We will be orienting our process along the DWR land use data.
- Question: On the total crop land acreage table, is there an average rate of groundwater pumped per acre of crop?
  - Response: With feedback from the March meeting, Bradley is going over his assessment approach and making some adjustments. New results will be shared this summer and feedback from the committee and interested parties will continue to be useful.

*Subsidence*

- Question: Is the subsidence shown possibly from ground leveling in the area?
  - Response: The subsidence is barely outside of the measurement error so we will make sure to due diligence on this issue. The Southern San Joaquin Valley has experienced more than three feet of recent subsidence. Any local knowledge of what this slight showing of subsidence in Butte Valley could be?
    - Comment from the public: That field is graded for crops, perhaps that's contributing.
    - Additional comment by DWR staffer Pat Vellines): The Arbuckle area is measured every 2-5 years by DWR staff. This could potentially be looked at for providing insights on how to conduct measurements.
  - Question (via email): Can we have a sensor for subsidence?

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

- Response: The GSA and its technical team, during this first phase, will rely on DWR measurements and bring in a sensor only if needed in the next five years.

*Geology*

- Question: How is thickness of the lakebed calculated?
  - Response: The information currently available (well logs) is not suitable for precise estimates. But the well log information on lakebed thickness will be used in the estimate of hydraulic properties of the unconsolidated sediments.
- Comment by Thomas Harter: DWR doesn't expect GSP to be 100% accurate. Assessment of uncertainty will be needed as part of the modeling.
- Comment by DWR staffer Pat Vellines: The GSA can ask for funds from DWR's Technical Support Services to install new wells to help fill data gaps.

*Aquifer thickness*

- Comment/question: I don't see the correlation of groundwater elevation with the well in the Lava Beds National Park, which goes down to 800 feet, and the Red Rock Basin, southeast of Butte Valley.
  - Response: Important to standardize with a datum. The technical team will look into the elevation of the surrounding basins and bring information back at the next meeting.

*Public comments*

- Comment/question: Previous well tests for me over the years have revealed that temperature, water chemistry and nutrient levels are quite variable in different wells. How is this factored into quantifying water across the basin.
  - Response: Past studies show three major formations in Butte Valley. However, it is difficult to assess. The technical team has also noticed variability in the data.
- Question: Have subterranean streams been identified in Butte Valley? Is this relevant as is in in Shasta Valley?
  - Response: None are known. Faults help create water bearing formations. We do not expect the same kind of surface water/groundwater interaction as in Shasta Valley. However, it is important to study this basin fully as it has not had much attention yet by scientists. We need to understand what's happening in fractured rock systems.

*Continuous and Periodic Monitoring Wells*

Bill Rice noted at the outset of this part of the presentation that a lowering in groundwater elevation in Butte Valley, although not dramatic, has been observed. A hydrograph slide was shown to illustrate this change in groundwater levels.

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

Thomas Harter noted that the technical team wants to further explore this issue. He acknowledged that sometimes external factors may affect groundwater elevation in Butte Valley. It is important to look at many aspects that lead to overdraft of groundwater. The groundwater model will be an important tool for testing ideas. For example, the technical team will use the model to assess the impact of precipitation. A range of questions and comments followed the technical team's framing of this section of the presentation.

- Questions: Can you clarify if the cumulative plot is showing wet years and dry years? What about cycles over centuries? The 50s and 60s were wet years.
  - Response: Older monitoring data are not available.

*Additional Hydrographs*

Thomas Harter noted that hydrographs are an important tool that will enable analysis of groundwater conditions in the Groundwater Sustainability Plan (GSP). Hydrographs will help improve understanding of groundwater elevation decline over the last 20 - 40 years, land use links to groundwater levels, and consideration of what actions may need to be taken by the GSA and its stakeholders. It will be important for the technical team to ensure that Advisory Committee members understand the technical team's analysis of collected data.

*Public comments*

- Question/comment: Do you have enough monitoring wells in the network? If not, I have one I could offer.
  - Response: The technical team will follow up, as it is both useful and needed to get more wells in the network.
- Question: Do we have any satellite images showing juniper intrusion.
  - Response: The technical team plans to do a preliminary analysis by looking at changes in upland vegetation and identifying any impact this may have on groundwater elevation.
  - Additional response: Identifying and sharing any time stamped aerial photos of Butte Valley from previous decades would be helpful.

*Moving forward*

- The technical team offered some brief information on items that will be coming in the next meetings, including;
  - Presenting and refining the watershed model
  - Brainstorm management scenarios

***Advisory Committee Members***

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

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

Jeffrey Volberg, Environmental

***Absent Committee Members***

Don Crawford, Private pumper  
Howard Wynant, Tribal  
Steve Lutz, Butte Valley Irrigation District

***District Staff***

Matt Parker, County of Siskiyou Natural Resources Specialist

***DWR Staff***

Pat Vellines  
Erin Crandall

***Technical Team***

Dr. Laura Foglia, UC Davis/Larry Walker Associates  
Dr. Thomas Harter, UC Davis/Larry Walker Associates  
Brad Gooch, UC Davis/Larry Walker Associates  
Bill Rice, UC Davis/Larry Walker Associates  
Bradley Simms, UC Davis/Larry Walker Associates

***Facilitator***

Rich Wilson, Seatone Consulting

***Members of the public***

Angelina Cook  
John Bennett  
Josh Root  
Eric Levesque  
Giuliano Galdi – UC Cooperative Extension