Meeting Brief

- Vina SHAC members reflected on the limitations and challenges of online meetings for meaningful discussion and decision-making. SHAC considered revisiting provisions in the Charter particularly in light of the COVID-19.
- SHAC requested to further discuss the document, "Identifying and Managing the Legal Implications of Artificial Recharge."
- Some SHAC members expressed concern regarding meeting Groundwater Sustainability Plan (GSP) deadlines as a result of COVID-19 and hoped DWR would consider extending current GSP development deadlines.
- SHAC members expressed that they would like greater detail in meeting summaries and suggested considering more formal meeting minutes, and some were interested in adding a chair and vice-chair. The Consensus Building Institute (CBI) affirmed that they would include greater detail in meeting summaries and would continue to work with the SHAC to achieve the right level of detail reflecting discussion nuances that capture differing perspectives, especially when there is disagreement.
- Butte County staff and technical consultants presented preliminary Basin Setting results: including Butte Basin Groundwater Model (BBGM) Status and Calibration, Historical Groundwater Conditions, and Draft Historical Water Budget. There was not enough time to finish covering all Basin Setting results.

Action Items

Item	Lead	Completion
Send SHAC members most recent document, "Identifying and Managing the Legal Implications of Artificial Recharge," and add to agenda for next meeting.	CBI & Butte County staff (Paul Gosselin)	Upon completion.
Revise 2/18/20 meeting summary to add suggested edits and send for review to SHAC members.	CBI	Before the next SHAC meeting 6/16
Draft proposed COVID-19 clause for inclusion in the Charter for SHAC review and comment.	CBI & Vina Management Committee staff	Before the next SHAC meeting 6/16
Add greater detail to meeting summary for SHAC review and discussion, and make recording files available on the Vina GSA website.	CBI & Vina Management Committee staff	By SHAC meeting 6/16
Add to next meeting's agenda discussion of SHAC's decision-making structures and meeting minutes.	CBI/Butte County staff	By SHAC meeting 6/16

Summary

The Vina SHAC held their third meeting on May 19, 2020 via video conference, as a result of COVID-19. The SHAC's March and April meetings were cancelled in response to the coronavirus. In total, 39 participants attended, including Vina SHAC members, GSA Member Agency Staff, technical consultants, state agency representatives, and members of the public.

Introductions & Approval of 2/18/20 SHAC Meeting Summary

The SHAC members, facilitator, staff and the public introduced themselves. The facilitator gave a brief overview of the agenda. SHAC members expressed concern with the previous 2/18/20 meeting summary, pointing out that there was not enough time for members to give complete feedback on the document, "Identifying and Managing the Legal Implications of Artificial Recharge." CBI will prepare a revised draft of the 2/18/20 meeting summary adding a bullet specifying that the SHAC did not have enough time to completely review and provide feedback on the document. Butte County staff will bring a revised draft of the document to next meeting for further discussion. In the meantime, CBI will distribute the most current draft document. Paul Gosselin, Butte County, encouraged SHAC members to contact him with any follow-up questions.

Public Comment

There was no business from the floor.

SHAC Decision-making Structure, Meeting Documentation, Charter, and Virtual Meetings

SHAC members expressed their desire to capture more detail in meeting summaries, and some expressed a desire to potentially add a chair to run meetings, and have the option to vote on meeting topics. Some SHAC members expressed concern about using on-line meeting formats for substantive discussions and decision-making. Some suggestions to help address concerns could include the use of online voting features, recording meetings for accurate representation of SHAC members' comments, specifying areas of disagreement in meeting documentation, and revisiting the current charter particularly in light of the implications of COVID-19.

In light of some SHAC members' concerns about how consensus decision-making could limit the group's ability to record each member's vote and accurately document SHAC perspectives, the facilitator read excerpts from the charter's section on Decision Making and Governing Board Considerations, including:

To inform GSA Board decision-making, the SHAC will provide written recommendations that will be included in Management Committee reports. The recommendations will identify areas of agreement and disagreement. The SHAC will strive for consensus when possible, but reaching consensus is not necessary. Consensus means that everyone can at least live with a recommendation. When unable to reach consensus on recommendations, the SHAC will outline the areas in which it does not agree, providing some explanation to inform GSA Board decision-making.

The GSA Board will consider SHAC recommendations when making decisions. If that GSA Board does not agree with the recommendations of the SHAC, the GSA Board shall state the reasons for its decision.

Discussion

- One SHAC member suggested that if the SHAC had taken a vote on the charter, it would have been clear that there was not consensus. Another SHAC member recalled that the SHAC discussed the charter at their first meeting in December, made minor suggested changes at that time, and then unanimously voted to approve the revised charter at the February meeting.
- Another SHAC member noted that the charter was written pre-coronavirus and urged the SHAC to consider adjusting the charter to take into consideration current conditions, further noting the limitation of virtual meetings.
- The facilitator suggested that consensus decision-making provides the opportunity for areas of agreement and disagreement to be fully described, emphasizing that CBI would continue to work with the SHAC to achieve the SHAC's desired level of detail in meeting documentation, as a starting point.
- Butte County staff noted that particularly under the current circumstances caused by COVID-19 and the corresponding two-month interruption of the SHAC's meetings, the SHAC may wish to reexamine the charter, make modifications, and take it back to the Vina GSA board for consideration.
- One SHAC member sought clarification on the procedures for making meeting materials accessible to the public. Staff noted that all meeting materials are posted to the Vina GSA website 72 hours before meetings to comply with the Ralph M. Brown Act and a meeting notification with a link to the website is distributed to the interested parties list 72 hours before the meeting. One SHAC member noted concern about receiving updated meeting materials after the materials are initially distributed and requested that all meeting materials be finalized before the meeting. The SHAC member specified if a change must occur, to inform SHAC members of exactly what changes have been made to ease advance review of materials.
- One SHAC member asked about the possibility of DWR extending the GSP submission deadline. Staff responded that so far, state deadlines remain unchanged. However, depending on how the situation progresses, there could potentially be ways to advocate for an extension.
- Others noted that there have been increased numbers of people to participate in virtual public meetings. Yet, numbers do not necessarily reflect the quality of engagement.

Groundwater Sustainability Plan (GSP) – *Agenda adjusted for lack of time.*

Chapter Overview

Butte staff presented an overview of the GSP content outline for discussion. The two-page summary can be found here. A SHAC member called participants attention to the full GSP annotated outline prepared by DWR that can be found here.

Butte Basin Groundwater Model Status

Butte County staff and technical advisors (David's Engineering, Woodard & Curran and GEI Consultants) presented an update on model development, groundwater conditions, and water budgets. There was not enough time to complete the presentation. The presentation is available here.

Byron Clark presented that the model used for water budget, Butte Basin Groundwater Model (BBGM), is an Integrated Hydrologic Model. Its calibration process can be interpreted as turning the knobs to match up model "simulated" results with actual observations. It is not perfect but can highlight general trends and changes over time. The BBGM model is based on historic land and water information from 2016 Water Inventory & Analysis. There are 86 calibration wells, of which 27 are key wells (5 nested well locations). Model estimates groundwater levels and each data point. Data is later analyzed using statistics and hydrographs to evaluate if the model is properly calibrated.

Overall, there is good information available, high confidence in land surface information, and calibration is good for a regional model. Next steps include using model to support Sustainable Management Criteria (SMC) and evaluate management and policy options. The gaps highlighted include the need to refine and expand boundary across the Sacramento River (interbasin coordination can be very beneficial to fill information gaps; and (2) hydrogeologic characterizations.

Discussion

- A participant asked about how stream gage locations are selected throughout the basin. Technical consultants replied they look at groundwater levels near the streams and along the stream to find gaining and losing streams nearby, trying to analyze stream behavior.
- One SHAC member expressed concerns about artificial recharge areas within the basin and highlighted the need to maintain a broad spectrum of recharge areas (for scientific and political reasons).
- A member of the SHAC would like to see future presentations including cross-sections and flow paths

  Staff/Consultants replied:
  - Hydrologic Conceptual Model (HCM) section of the GSP and integrated hydrological model will be coming in the upcoming meetings.
  - The calibration process looked at flow paths, using contour maps. Overall, pretty good calibration for a regional model.
  - If not detailed in this model, might be good to have some smaller models to track and present well log data and cross-sections.
- A member of the public inquired about recharge area delineation in the model in the Tuscan Aquifer, expressing concern regarding how changes in water delivery might impact recharge areas and would like some reassurance.

Historical Conditions: Groundwater Levels and Level Contours

Consultants from David's Engineering presented an overview of groundwater conditions in the basin, using hydrographs from key wells to evaluate historical groundwater levels. These wells were selected because of consistent and reliable data for three management areas. Maps and hydrographs were developed for each management area to provide insight into aquifer conditions over time. Hydrographs are elevations based on sea-level (not depth of groundwater per se). Hydrographs show the relation between the groundwater surface is pretty consistent, showing seasonal fluctuations. Nested wells, dedicated monitoring wells at different levels, track pretty closely for the most part. Information from individual wells can be used to construct groundwater level contour maps to evaluate flow directions. In these areas, can observe changing trends in flow direction in Spring and Fall.

Discussion:

- A participant asked which level of aquifer are flows measured (shallow, intermediate, or deep). Butte County staff replied flows are based on DWR data, not deep levels. As is shown in the nested aquifers, there is good communication across depths. Generally, flow directions at different depths follow same path.
- Another participant asked about efforts to measure vertical flows. Staff mentioned they looked at identifying principal aquifers and can revisit this question. There are some vertical flow gradients (complicated in some locations because they change in time, recharge and recovery in winter).

Draft Historical Water Budget

The historical water budget accounts for inflows, outflows, and change in storage, using the BBGM. It includes land surface, surface water, and groundwater systems and provides insight on how the system worked in the past and how conditions have changed from (2000-2018). Rather than separate the elements, the BBGM included all of these together. Main drivers include land use, precipitation, evapotranspiration, surface water supplies, groundwater pumping, percolation, surface water-groundwater interaction, and interbasin flows. There is still need for greater understanding of inter-basin flows, which will be attained through inter-basin coordination. Additional details will be included in the GSP.

Discussion:

- A participant asked about GSA recommendations for land use planning, considering SGMA legislation doesn't cover the foothills area. Technical consultants stated, this is a policy question, and it might be good to have more stream gages to better understand runoff. The GSA has no jurisdiction outside of the basin, but we acknowledge the importance of recharge. That is where county's jurisdiction come into play.

Next Steps

- Revisit document, "Identifying and Managing the Legal Implications of Artificial Recharge."
- Consider revisiting existing Charter given the constraints of the current COVID-19 reality.
- Add greater detail to meeting summary, make recording files available on the Vina GSA website.
- Contact Kelly Peterson (kpeterson@buttecounty.net) to be added to the broader distribution list for future meeting announcements.

Meeting Participants

Participant	Representation/Affiliation	Present
Vina Stakeholder Advisory Committee (SHAC) Members		
David Kehn	Cal Water	Y
James Brobeck	Environment representative	Y

Participant	Representation/Affiliation	Present
Cheri Chastain	CSU Chico	Y
Gary Cole	Agriculture well user	Y
Anne Dawson	Domestic well user	Y
Samantha Lewis	Agriculture well user	Y
Christopher Madden	Butte College	Y
Joshua Pierce	Domestic well user	N
Bruce Smith	Business representative	Y
Greg Sohnrey	Agriculture well user	Y
Groundwater Sustainability Agency (GSA) Member Agency Staff		
Christina Buck	Butte County	Y
Paul Gosselin	Butte County	Y
Kelly Peterson	Butte County	Y
Linda Herman	City of Chico	Y
Erik Gustafson	City of Chico	Y
Jeff Carter	Durham Irrigation District	Y
Kamie Loeser	Durham Irrigation District	Y
Technical Consultants		
Byron Clark	Davids Engineering	Y
David Miller	GEI Consultants	Y
Reza Namvar	Woodard & Curran	Y
Sarah Miller	Woodard & Curran	Y
Facilitator		
Tania Carlone	Consensus Building Institute	Y
Mariana Rivera-Torres	Consensus Building Institute	Y
Government Agency Representatives		
Debbie Spangler	California Department of Water Resources (DWR)	Y

Participant	Representation/Affiliation	Present
Other GSAs Present		
Ryan Teubert	Tehama County Flood Control and Water Conservation District (GSA in adjacent subbasins)	Y
Tara Rhoads	Rock Creek Reclamation (GSA in Vina Subbasin)	Y

An additional fourteen members of the public attended the meeting.