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VINA GROUNDWATER SUSTAINABILITY AGENCY AND ROCK CREEK RECLAMATION DISTRICT JOINT BOARD MEETING

Meeting Agenda
February 10, 2021, 5:30 p.m.
ONLINE MEETING ONLY VIA ZOOM

Materials related to an item on this Agenda are available for public inspection in the City of Chico Public Works Operation & Maintenance Office at 965 Fir Street, Chico, during normal 8 am to 5 pm business hours or online at https://www.vinagsa.org/

PUBLIC PARTICIPATION:

This meeting is being conducted via teleconference in accordance with Executive Order N-25-20 and N-29-20. Members of the public may virtually attend the meeting remotely using the ZOOM platform.

The public may listen to and/or participate in the Vina Groundwater Sustainability Agency (GSA) Board Meetings via landline or mobile telephone or via computer, with both video and audio enabled or audio only. If you wish to comment on an item, but do not wish to participate during the meeting, the public may submit comments prior to the meeting via email to **vinagsapubliccomments@chicoca.gov**. Please submit emails with the subject line "**PUBLIC COMMENT ITEM NO.__".** The public is encouraged to not send more than one email per item or comment on numerous items in one email.

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Agenda Prepared: 2/4/2021
Agenda Posted: 2/5/2021
Prior to: 5:30 p.m.

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1. VINA GROUNDWATER SUSTAINABILITY AGENCY (GSA) REGULAR BOARD MEETING

1.1. Call to Order - Chair Tuchinsky

1.2. Roll Call

2. ROCK CREEK RECLAMATION DISTRICT (RCRD) SPECIAL BOARD MEETING

Call to Order – Chair Crain

2.1. Roll Call

3. REGULAR AGENDA

3.1. PUBLIC WORKSHOP ON THE DEVELOPMENT OF THE SUSTAINABLE MANAGEMENT CRITERIA FOR THE VINA GROUNDWATER SUSTAINBILITY PLAN (GSP)

The joint Vina GSA and RCRD Board members will receive a presentation and accept public comment on the development of the required GSP Sustainable Management Criteria needed to avoid undesirable results for six sustainability indicators. The discussion will include the establishment of monitoring locations, measurable objectives, and minimum thresholds. (***Report- Management Staff, Geosyntec technical consulting team members, and CBI consultants)***.

Recommendation: Provide input to the Management Committee and the technical consulting team as appropriate.

4. COMMUNICATIONS AND REPORTS

These items are provided for the Board's information. Although the Board may discuss the items, no action can be taken at this meeting. Should the Board determine that action is required, the item or items may be included for action on a subsequent posted agenda.

7.1 Vina GSA Management Committee Updates

7.1.1 Vina Stakeholder Advisory Committee Update ***(Written Report -Kelly Peterson)***

8. ***ADJOURNMENT*** **–** The Vina GSA Board meeting will adjourn to the next regular Vina GSA Board meeting on 3/10/21. The RCRD Special Board meeting will adjourn to the next regular RCRD Board meeting.

	Vina Groundwater Sustainability Agency Agenda Transmittal	Agenda Item: 7.1.1

Subject: Management Committee Report - Vina GSA Stakeholder Advisory Committee Update

Contact: Kelly Peterson Phone: (530) 552-3588 Meeting Date: February 10, 2021 Regular Agenda

Department Summary: The Vina GSA Stakeholder Advisory Committee (SHAC) met virtually last month on January 19, 2020, the draft meeting notes are attached.

At the last meeting, the SHAC:

- Approved the previous meeting notes (12/15/20)

- Continued discussion on the GSPs Sustainable Management Criteria and provided input on proposed Measurable Objectives (MO) and Minimum Thresholds (MT)

- Briefly reviewed Project and Management Action materials and next steps. Materials prepared by the Vina GSA Management committee included a staff memo discussing legal implications, a PMA glossary of terms, and a draft PMA submittal form

SHAC membership details, meeting materials, detailed meeting notes and recordings of the meetings are on the Vina GSA website: https://www.vinagsa.org/. All SHAC meetings are open to the public and scheduled for the third Tuesday of each month from 9:00 a.m. – 12:00 p.m. in an online format using Zoom. The SHAC will meet again via video conference on February 16, 2021 at which time they will consider in addition to other items, approval of the January 2021 meeting summary, continue SMC discussions (Minimum Thresholds and Measurable Objectives) and continue PMA discussions.

Fiscal Impact: None

Staff Recommendation: Accept as an information item.

Meeting Brief

- The Vina Stakeholder Advisory Committee (SHAC) met virtually on January 19, 2021.
- **Meeting Notes:** The SHAC approved the previous meeting notes (12/15/20) [Access Here].
- **Sustainable Management Criteria (SMC):** The SHAC continued discussion on the SMC and provided input on proposed Measurable Objectives (MO) and Minimum Thresholds (MT) [Access Presentation Slides | Access SMC Supporting Materials].
- **Projects & Management Actions (PMAs):** The SHAC briefly reviewed PMA materials and next steps. Materials prepared by the Vina GSA Management committee included a staff memo discussing legal implications [Access Here], a PMA glossary of terms [Access Here], and a draft PMA submittal form [Access Here].
- **Next Meeting:** The SHAC will meet again via video conference on February 16, 2021 from 9:00-12:00. In addition, the Vina GSA Board will have a public workshop focused on SMC on February 10, 2021 at 5:30 pm.

Action Items

Item	Lead	Completion
• Finalize Vina SHAC meeting summary (12/15/20).	CBI & Management Committee	Upon completion
• Update domestic well table to indicate elevation and not depth.	Geosyntec	Upon completion
• Characterize diversity of SHAC's perspectives regarding the SMC for the Vina GSA Workshop.	CBI & Management Committee	Upon completion
• Share recharge maps with the SHAC.	CBI & Management Committee	Upon completion
• Post meeting recording on the website.	CBI & Management Committee	Done [Access Video | Access Audio].

Summary

The Vina SHAC met on January 19, 2021 via video conference, as a result of COVID-19. 37 participants attended, including Vina SHAC members, Groundwater Sustainability Agency (GSA) member agency staff, technical consultants, representatives of the CA Department of Water Resources (DWR), and members of the public. Below is a summary of key themes and next steps discussed at the meeting. This document is not intended to be a meeting transcript. Rather, it focuses on the main points covered during the group's discussions. The video-conference meeting recording is available at the Vina GSA website [Access Video Recording | Access Audio Recording].

1. Introductions & Agenda Review

The SHAC members, facilitator, technical consulting teams, and staff introduced themselves. The facilitator gave a brief overview of the agenda.

2. Public Comment for Items Not on the Agenda

a. **Delta Conveyance Project:** A SHAC member brought up the tunnels associated with the Delta Conveyance Project. P. Gosselin (Butte County) responded that this is the third attempt to develop the Delta Conveyance Project, which would affect the Butte Subbasin and not the Vina Subbasin as much. Butte County will evaluate the impacts if and when the project moves forward.

b. **Water Quality:** A SHAC member raised concern regarding water quality issues related to homeless camps along creeks and streams in the subbasin. P. Gosselin (Butte County) explained that GSAs will keep those impacts in mind but do not have jurisdiction over that matter. Other state and regional agencies are responsible for monitoring and regulating water quality concerns, depending on the type of contaminant. Point source pollution falls under the Regional Water Board or the CA Department of Toxic Substances. Non-point source pollution is managed by the State Water Board and Regional Water Boards through specific programs. Monitoring is conducted by local groups under the Regional Board's guidance. Regulatory structures are housed at a state level, sometimes through Environmental Health. That said, water quality concerns associated directly with groundwater pumping fall within the GSAs' purview. Consultants shared that while the Vina Subbasin has good water quality at the moment if certain natural contaminants are traced through monitoring in the future, the GSA can set up criteria to address them. A SHAC member shared there is existing valuable information in a number of well logs in Chico (shallow, intermediate, and deeper zones) that could be analyzed.

c. **Meeting Notes:** A SHAC member requested a shorter turnaround for the meeting notes. The facilitation team will aim to prepare and distribute the meeting minutes within two weeks of the meeting, noting they first undergo internal review within the Management Committee.

3. Meeting Notes Review & Consideration

The SHAC reviewed and approved the 12/15/20 SHAC meeting notes [Access Here].

4. Sustainable Management Criteria (SMC) Overview - Discussion

The SHAC received a presentation from Geosyntec, GSP technical consultants, continuing the discussion on SMC. Geosyntec provided a brief overview of the approach. SHAC members provided input on proposed Measurable Objectives (MO) and Minimum Thresholds (MT). Geosyntec prepared a packet of supporting materials to accompany the presentation, including proposed representative monitoring site locations [Access Presentation Slides | Access SMC Supporting Materials].

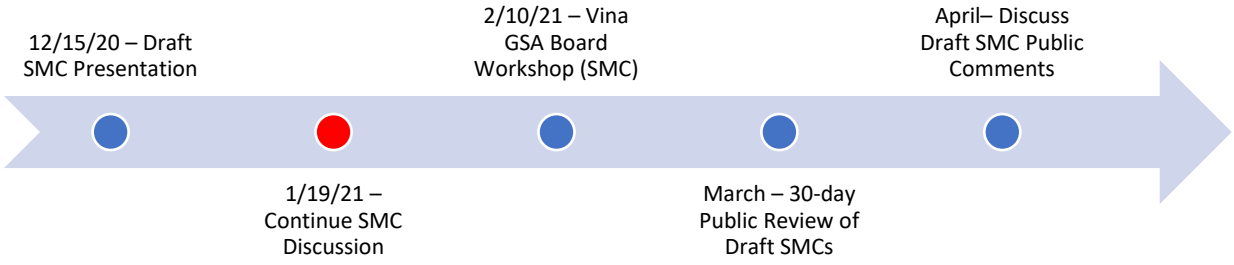
Recap

SGMA Terminology

Sustainability, under the Sustainable Groundwater Management Act (SGMA), is demonstrated by the avoidance of Undesirable Results for the six sustainability indicators: lowering of groundwater levels, reduction of groundwater storage, land subsidence, surface water depletion, water quality degradation, and sea water intrusion. SMC and representative monitoring locations must be developed for each of the indicators below. Each undesirable result must include three elements:

a) **Description of Undesirable Results:** what constitutes a "significant and unreasonable" condition
b) **Minimum Threshold:** avoidance criteria, or quantitative definition of groundwater conditions at a representative monitoring site at which undesirable results may begin to occur
c) **Measurable Objective:** management target (quantitative) that reflects the basin's desired groundwater condition and allows GSAs to achieve sustainability goals within 20 years. MOs are achieved incrementally through the Project and Management Actions (PMAs).

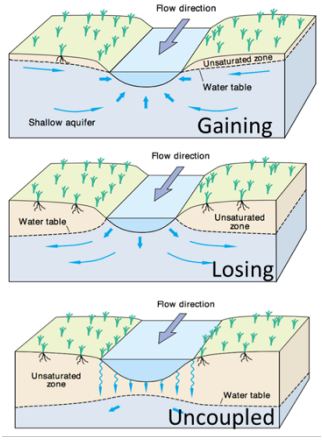
Vina SMC Development Schedule:



Strawman Undesirable Results & Sustainable Management Criteria

The technical team presented refined draft, or "strawman" undesirable results, measurable objectives, and minimum thresholds to gather the SHAC's input to make further refinements to the draft SMC.

Depletion of Interconnected Surface Water



B. Anderson (Geosyntec) reviewed the modes of stream-aquifer interaction (gaining, losing, and uncoupled), presented an analysis of existing information (stemming from the model, existing studies, GDE analysis, etc.), and recommended an approach for this SMC. In sum, Geosyntec found significant data gaps, and propose a "do no harm" SMC criteria. In other words, the plan would first indicate that managing groundwater levels to proposed measurable objectives (either 2015 or a 2030 projection) should maintain the level of connectivity and seasonal interactions that are occurring currently.

Using the framework, the GSA can then develop more specific SMCs as appropriate for specific stream reaches and associated GDEs where there is a clear connection to groundwater and an associated management action would help maintain ecological integrity.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• Surface water depletion caused by groundwater pumping prevents beneficial uses over a sustained period. This includes environmental beneficial uses in natural stream channels that support a viable ecosystem, particularly ecosystems containing endangered species. • Surface water depletion in streams containing Groundwater Dependent Ecosystems (GDEs) is the first priority.
Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Groundwater connected to upland streams that are shown to be losing along their entirety will not be assigned MO/MT • Groundwater connected to upland streams that are shown to have one or more gaining reaches will be assigned specific MO/MT values based on site specific stream/aquifer dynamics
Quantitative definition of significant and unreasonable impact	• >10% reduction in GDE species resulting from pumping within the GSA.

Geosyntec shared key takeaways from their analysis, which focused on key areas with GDEs identified: GDEs in Floodplain Areas and GDEs in Upland Areas.

a. Uncoupled groundwater surface water conditions are more prevalent in the Vina Subbasin that previously expected.
b. Stream/Aquifer interaction in upland tributary areas differs from stream aquifer interaction near the Sacramento River mainstem.
c. Streamflow profiles and groundwater levels in shallow wells adjacent to natural stream channels are needed to evaluate depletion, so there are significant data gaps for defining measurable objectives and minimum thresholds.
d. The Butte Basin Groundwater Model (BBGM) provides insight into stream/aquifer dynamics that can help describe a proposed framework for managing this undesirable result. The BBGM results can be complemented with the CSCU Big Chico Streamflow Study (2020) findings and the Floodplain delineation maps. Based on that joint analysis, the technical team found the model is making correct predictions when classifying the various streams (gaining or losing) by simulating interactions. Comparing the model with the Big Chico field study, it appears that the model is underestimating the rate of seepage to groundwater from individual reaches of Big Chico and therefore overestimating the flow in Big Chico Creek. For example, the lower reaches of Big Chico shown to be dry in the field study are not dry reaches in the model. Part of this is from the fact that the BBGM is a regional model, and a finer scale of analysis of GW/SW interaction is probably needed.

e. Future model calibrations can be done with stream interaction data stemming from the Big Chico Creek study and other similar studies.

Consulting Team's recommendations:

Upland areas:

a. **GDEs:** The groundwater connection to potential GDEs may be "dependent" on whether or not there are losses (losing reaches) in the upland portions of some of the streams. However, if those streams are in losing conditions, reductions in deeper groundwater pumping would not necessarily affect GDEs if they are influenced more by shallow, near-surface channel dynamics (flood frequency, hyporheic zone, soil moisture, and riparian uptake).
b. **SMC (TBD):** Groundwater connected to upland areas of streams that are shown to be losing along their entirety will not be assigned an MO/MT. Groundwater connected to upland streams that are shown to have one or more gaining reache will be assigned specific MO/MT values based on site-specific stream/aquifer dynamics. Further investigation of near surface stream/GDE dynamics in upland areas is warranted.

Floodplain areas

a. **GDEs:** The groundwater connection to potential GDEs may be "dependent" whether or not there are gains (gaining reaches) from groundwater, but those gains are less than ten percent of the channel flow. Groundwater pumping may be affecting discharge but is less than ten percent of the channel flow. GDEs are more likely to be connected to shallow, near-surface floodplain dynamics (flood frequency, hyporheic zone, soil moisture, and riparian uptake).
b. **SMC (TBD):** If cumulative groundwater discharge is 10% of streamflow from groundwater discharge, it will be assigned specific MO/MT value based on site-specific stream/aquifer dynamics • Further investigation of near surface stream/GDE dynamics in floodplain areas is warranted, but lower priority than uplands.

Framework for Stream/Aquifer Interactions and GDEs

Geosyntec presented a framework for future analysis. This framework starts with a list of ecological factors to consider. From a hydrogeologic standpoint, the GSA would need to know stream conditions and dynamics in the aquifer through field surveys similar to the CSCU Big Chico study. Then, groundwater information in the deeper Tuscan aquifer, shallow alluvium aquifer, the sediments in the floodplain immediately adjacent to the streams is needed. This will establish where there are gaining and losing reaches of surface waters and which aquifers are contributing or receiving water from those reaches. Streamflow profiles along the upland streams is more feasible and developing a streamflow profile for the Sacramento River would be a big endeavor because it would need to account for reservoir releases, inter-basin dynamics, etc.

Discussion:

a. **Big Chico Creek:** A SHAC member suggested that Big Chico Creek was gaining at its middle portion, on campus, interacting with the shallow aquifer. The consulting team clarified

that this is not what the recent results of the CSUC Big Chico Creek flow study by Jeff Davids showed and that while groundwater levels may rise when streamflow is higher, it does not mean that groundwater and surface water are directly connected, or that increased pumping will lead to increased leakage from the streambed.

b. **Intermittent Streams & Fish:** A SHAC member highlighted existing data gaps in intermittent streams and emphasized the importance of streamflow timing. They mentioned that studies have found that the lower portions of some intermittent streams may provide optimal rearing habitat for migrating salmon between December and March. Geosyntec shared that current analysis of GDEs are based on The Nature Conservancy's dataset which is focused on wetlands and vegetation. The GSA can consider establishing additional salmon-bearing streams as GDEs, although many already are included in the current dataset. The SHAC member commented that Mud Creek, Pine Creek, Rock Creek, and others probably provide essential rearing habitat and that groundwater could help maintain fish passage flows. Although these processes are largely driven by the stream system runoff from the foothills, may be mostly important in the receding limb of a hydrograph and in dry years when irrigation may begin earlier than usual.

c. **Data Gaps:** The consulting team shared that in the plan, GSAs need to describe an established connection between pumping and impact to the GDEs. At this point there is not enough information, and the connection is not clear enough to set MT and MO. If the stream were clearly losing, then no point of establishing SMC, if it were clearly gaining and connected, then the SMC can be defined based on specific creek dynamics. Geosyntec's proposed approach is to set up the foundation for implementation, describing how and when data gaps would be filled. In the first plan update, the GSA could prioritize Big and Little Chico Creeks to confidently define the criteria.

d. **Historic Conditions:** A member of the public asked if the stream and aquifer have historically been disconnected or if conditions have been affected by recent changes. Geosyntec explained this question gets to the "natural condition" conundrum. In their view, SGMA did not intend to return all systems to natural conditions but rather define and maintain sustainable conditions.

e. **Evapotranspiration (ET) & Creeks**: In response to a SHAC member's question, Geosyntec shared that the connection between Evapotranspiration (ET) and drying creeks is considered more of a floodplain process than a groundwater process.

f. **Sacramento River:** Geosyntec observed a gaining condition in the Sacramento River. Some well data are available to show groundwater levels and surface water elevation in the Sacramento River. The model shows the Sacramento River is gaining, but accounting for only approximately 1% of flows. That means that significant pumping reductions in Vina would lead to a relatively small percent change in flows. Geosyntec suggested the subbasin is not in a position to set a MO/MT and more site-specific investigation is warranted. However, the floodplains are a lower priority than the upland areas.

g. **Urban & Agricultural Pumping:** A member of the public asked what percent of total water pumped corresponds to urban use. Geosyntec explained urban pumping is a very small percentage of overall groundwater pumping but represents almost all the pumping in the

winter. If the management strategy is to target highest water uses, agricultural use represents the greater proportion of pumping.

h. **Shallow vs. Deep Aquifer:** A SHAC member highlighted that previous graphs depicting multi-completion monitoring wells show water levels are higher in the deeper aquifer than in shallow parts of the system. Geosyntec explained that leakage has to go through shallow aquifer first before it can interact with surface water.

i. **Valley Oak Woodlands:** A SHAC member requested that valley oaks and urban forests are considered in GDE analysis, when setting SMC.

j. **Framework Concerns:** A SHAC member expressed concern with the suggested framework, as it does not illustrate the connection between the alluvium and Tuscan aquifers shown in the Airborne Electromagnetic (AEM) study a few months back. They expressed a desire to acknowledge the connection and to maintain the pressure between the shallow and deep aquifers in order to avoid the depressurization problems experienced in the San Joaquin Valley.

Degraded Groundwater Quality:

Suggested approach: Geosyntec shared that GSAs are only responsible for addressing water quality problems clearly related to pumping. Thus, the MT and MOs can be tied to the same criteria, based on salinity as the indicator. The GSA will need to work with other agencies to avoid mobilizing contaminants or worsening pollution. Geosyntec proposed using deep monitoring wells as Representative Monitoring Sites (RMS), looking at salinity as the main criteria. Using the State Water Resources Control Board's GAMA Program (Access Here) In terms of salinity, only 4 wells showed salinity concentrations above 900 µS/cm. Three of these wells were sampled in the 60s and 70s and other wells sampled at later dates did not report levels above 900 µS/cm. The fourth well located in the southern portion of basin is monitored as part of another regulatory program associated to irrigated lands. Overall, the consulting team did not see other degraded conditions in the subbasin from natural occurrences from the GAMA data. Data for the proposed deep RMS wells obtained from DWR's Water Data library show good conditions well below 900 µS/cm.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• Water quality is below State Maximum Contaminant Levels (MCLs) or thresholds for agricultural productivity as a result of groundwater pumping. • Salinity will be used as a proxy for overall water quality. • Other programs and agencies are responsible for enforcing groundwater quality violations. GSA will coordinate with other agencies if water quality degradation is associated with groundwater pumping.

Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – 1,600 µS/cm–Upper SMCL • Measurable Objective–900 µS/cm–Secondary MCL (SMCL)
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring locations fall below minimum threshold for 2 consecutive years.

Discussion:

No comments

Chronic Lowering of Groundwater Levels

Approach: Geosyntec proposed setting the Minimum Threshold (MT) based on domestic well depths, with the intent to establish some level of protection for domestic well vulnerability. The team suggested using the 15% percentile as the MT, which would mean 85% of the wells would have depths below the threshold and be "protected". Geosyntec suggested establishing MOs (the desired state for water levels) based on current and projected water level trends, using existing monitoring data and modeling results. The options for the MO presented were to use 2015 levels (higher) or projections based on historic trends (lower). Projections to 2030 are based on General Plan land use data, projected urban water demands in 2050, and historical hydrology with climate change. Choosing a higher MO would be more protective and require more conservation and more PMA, while a lower MO would be less protective and provide more flexibility. The area between the MT and MO indicates the level of operational flexibility. Dipping below the MO would trigger certain PMAs, so the higher the MO the more aggressive the subbasin has to be with PMAs. This SMC process would apply to each Representative Monitoring Site.

Draft Undesirable Results and Sustainability Criteria

Undesirable Result Statement	• GW Levels are unable to satisfy beneficial uses over a sustained period. Specific examples of undesirable results include domestic wells going dry, reduction in pumping capacity, Increase in pumping costs, Potential impacts to GDEs.
Minimum Threshold (onset of undesirable result) & Measurable Objective (desired condition)	• Minimum Threshold – Fall (Sept/Oct) GW level is above the 15th Percentile of all domestic well depths in a given area or sub-area. This means 85% of all domestic wells are completed below the minimum threshold and will be "protected." • Measurable Objective – Fall 2015 groundwater level (or modeled 2015 groundwater level if no data are available). This means dry cycle minimums are no worse than 1993-2015 minimums.
Quantitative definition of significant and unreasonable impact	• 25 % of representative monitoring wells fall below minimum threshold for 2 consecutive years.

The Geosyntec team prepared a table including 20 monitoring wells to show how many wells are vulnerable at the different percentiles [Access SMC Supporting Materials]. These estimates come from DWR data. The technical team does not know how many of the wells remain in service. Numbers need to be updated as part of implementation as the data is not currently available from DWR. By the first 5-year update, the GSA would refine numbers, recalculate statistics, and potentially reset MT based on better information.

Discussion:

The SHAC held differing views regarding the proposed MT and MO. While some were comfortable with the 15th percentile, others expressed concern. Some advocated for a higher MO to encourage prompt and effective action towards sustainability, while others suggested having a broader range of operational flexibility.

SHAC Members

a. A. Dawson (domestic well user) expressed serious concern with setting the MT at the 15th-percentile proposal but could live with 10th percentile. In terms of the MO, Anne suggested using the projected slope (2003-2015) to provide more flexibility during dry years. She suggested using interim targets. Lastly, she highlighted the GSA's obligation to provide a safe drinking water source to meet basic human needs to the domestic well owners' whose wells go dry.
b. G. Sohnrey (ag well user) shared he would be okay with the 15th percentile, understanding this number would be refined and adjusted in the coming years. Further, he anticipates many of the vulnerable wells are old and perhaps not in use. Vulnerability does not imply these wells will go dry, but rather sets a threshold for management. He inquired about the County's Basin Management Objective program and it's alert stages which uses a set level for each well to inform owners when levels were low. P. Gosselin shared that the BMO effort did not take into account all domestic wells. Alert levels were based on historical lows by each specific well; the MT is much lower than any previous historical low.
c. C. Madden (Butte College) highlighted the tradeoffs between the options presented. The wider the range between MO and MT, the more time to implement a particular PMA, which would imply less severe consequences and more time to see the results of the PMAs. Pushing out the MO to the 2030 level would lower range and require quicker and more aggressive response. He suggested setting the level at 2015 or interpolating somewhere in between to buy some time.
d. D. Kehn (CalWater) stated he would be okay with the 15th percentile, as it represents unreasonable and undesirable conditions, the worst-case scenario. His main concern with setting the MO at 2015 level which would require getting PMAs up and running quickly which could put the subbasin in a difficult position and may not be cost effective.

e. J. Brobeck (environmental rep) suggested including multi-completion wells in the analysis to set up MOs and MTs, focused on the pressurized portion of the aquifer. He believes the more conservative the better and trusts the consulting team on their suggestions.
f. B. Smith (business rep) shared that if the groundwater levels were just dependent on the Vina subbasin, he would be comfortable with the proposal. Massive pumping across the river in adjacent subbasins will impact water levels. He would like to set up the MO at 2015 levels because it is based on real data. Further, by setting the number at 2015 levels, the subbasin would be set up for greater and faster action and would require neighbors to look at screen levels and cross-sections. Looking at snowfall this year, the subbasin does not have a lot of time. In terms of the MT, he is not comfortable with 15-percentile, 10 is better and 5% is preferred. Drying up people's wells would have a severe impact on people's lives and on the economy.
g. G. Cole (ag well user) would be ok with the 15% percentile but assumes that the system cannot be based on one figure and would include mitigation efforts and other PMAs. Besides, he would like to ground truth the numbers to know how many of these wells are functional.
h. C. Chastain (CSU Chico) suggested the 15th percentile was too high and not reasonable. She would be more comfortable with the 10th percentile. In terms of MO, she was not ready to provide comment at this time.
i. S. Goepp (domestic well user) was trying to digest all the information. His initial reaction was that 15% seems conservative, and the SHAC needs to anticipate the impact growth and new development (residential, industrial, and commercial) may have on groundwater conditions.

S. Lewis (ag well user) appreciated other SHAC members' comments. She is comfortable with 15th percentile because it can be revisited and modified with time. She would like to base SMCs on the longer dataset and time period to account for cycles and would like to include education efforts as part of the PMAs, related to water supply vulnerability for future buyers.

Non-SHAC:

a. D. Rice (Rock Creek Reclamation District GSA) shared he has more questions than answers at this time. Mitigation efforts for domestic wells at the 15th level may be financially viable, but the environmental impacts might be significant. The basin will need to identify undesirable results and address them.
b. A member of the public wanted to emphasize A. Dawson's point about the Human Right to Water. What happens to domestic well owners when they go dry? What are the ramifications? Some San Joaquin Valley plans did not even address domestic well impacts. Vina can set criteria and PMAs to ensure all people have access to sufficient and adequate water. A member of the public shared that while some subbasins in the San Joaquin Valley ignored domestic wells, others established mitigation programs or committees to look at mitigation efforts to support domestic and agricultural pumpers, emphasizing the

importance of achieving a balance. If the MT is too aggressive, the subbasin may reach undesirable and unreasonable conditions in the near future.

Outcomes & Next Steps | SMC

a. The technical team will take the SHAC's insight as they prepare for the SMC Workshop with the Vina and RCRD GSA Boards on February 10, 2021 at 5:30 pm. All SHAC members and public participants are welcome to participate. Geosyntec will summarize options, trade-offs, and considerations between 15% and 10% MT. They will also clarify key questions to inform the board and receive input.
b. Geosyntec shared that all of the considerations mentioned can be incorporated in the plan (shallow aquifer, salmon habitat, domestic well protection, etc.) and addressed during the implementation phase.
c. SMC chapters will be open for public review in the near term. Further, the SHAC will begin shifting conversations towards PMAs.

5. PMAs:

P. Gosselin provided a brief overview of the PMA materials that the Management Committee prepared for the SHAC and clarified next steps. Materials included a staff memo discussing legal implications [Access Here] and a PMA glossary of terms [Access Here]. Unlike many other GSAs, Vina started with a PMA brainstorm early, then transitioned towards setting the SMC, and now will revisit PMAs with a better understanding of what to plan for. The materials aim to move the conversation from hypothetical toward setting up an evaluation process for specific PMAs. The Management Committee is still putting together recharge maps and will share with the SHAC as soon as possible.

Staff is looking to establish a solicitation process to gather PMA ideas. A draft PMA submittal form was included in the materials [Access Here]. The SHAC can also submit suggestions and options to the form. The Management Committee will bring ideas back to the SHAC for discussion.

V. Kinkaid (O'Laughlin & Paris LLP) emphasized that If the subbasin were not on track to meet interim milestones, certain PMAs could be triggered. Other GSAs have struggled with defining authority, specifically who has to do what and when, acknowledging that it takes funds.

Discussion:

a. A SHAC member would like to spend more time discussing the legal implications of recharge programs and demand management. He was concerned with the delay in addressing this matter and wants to ensure that PMAs (recharge) will not impact people's water rights and the environment. The Management Committee assured him that there will be more time to discuss this after the board SMC workshop. Due to the complexity and depth of the SMC discussion, there will be a board workshop dedicated to PMAs later in the process.

6. Vina GSA Management Committee Reports

a. Vina GSA Board Updates: No updates

b. Inter-basin coordination updates: The most recent summary is available at the website [Access Here]. A SHAC member asked for additional details regarding preliminary findings from model output comparison related to the quantity and direction of cross-boundary flows. C. Buck shared that flow direction was the same in the model outputs. In relation to the actual flow estimates, the technical teams are conducting further analysis to better understand what is driving the differences in model outputs. The facilitation team acknowledged the SHAC member's concern for greater transparency and asked for suggestions on how to improve the process moving forward. The SHAC member suggested finding ways to communicate the information in a clear and accessible manner for the general public, who may not have much experience with modeling.

7. Next Steps

The SHAC will meet again via video conference on February 16, 2021 from 9:00-12:00. In addition, the Vina GSA Board will have a public workshop focused on the SMC on February 10, 2021 at 5:30 pm.

Participants

Participant	Representation/Affiliation	Present
Vina Stakeholder Advisory Committee (SHAC) Members		
Anne Dawson	Domestic well user	Y
Bruce Smith	Business representative	Y
Cheri Chastain	CSU Chico	Y
Christopher Madden	Butte College	Y
Gary Cole	Agricultural well user	Y
David Kehn	California Water Service	Y
Greg Sohnrey	Agricultural well user	Y
James Brobeck	Environmental representative	Y
Sam Goepp	Domestic well user	Y
Samantha Lewis	Agricultural well user	Y
Groundwater Sustainability Agency (GSA) Member Agency Representatives		
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	N
Kamie Loeser	Durham Irrigation District	Y
Colin Klinesteker	Mechoopda Indian Tribe	N
Darren Rice	Rock Creek Reclamation District GSA	Y
Technical Consultants		

Participant	Representation/Affiliation	Present
Joe Turner	Geosyntec	Y
Amer Hussain	Geosyntec	Y
Bob Anderson	Geosyntec	Y
Other Representatives		
Debbie Spangler	CA Department of Water Resources	Y
Valerie Kinkaid	O'Laughlin & Paris LLP	Y
Facilitator		
Tania Carlone	Consensus Building Institute	Y
Mariana Rivera-Torres	Consensus Building Institute	Y

Approximately ten members of the public attended the meeting.