

Corning Subbasin Advisory Board

April 7, 2021, 1:30 – 4:30 pm

Meeting #12 Meeting Summary

Pursuant to Governor Newsom’s Executive Orders N-29-20, this meeting was conducted by teleconference/webinar.

Webinar: <https://global.gotomeeting.com/join/321656461>

Telephone: +1 (646) 749-3122

Meeting Access Code: 321-656-461

1. Welcome and Introductions

At 1:30 p.m., Julie Leimbach (Ms. Leimbach), facilitator for the Corning Subbasin Advisory Board (CSAB), called the meeting to order.

Roll Call

Ryan Teubert (Mr. Teubert) and Lisa Hunter (Ms. Hunter) took the roll call for the CSAB Members.

Tehama County Flood Control and Water Conservation District (TCFCWCD)

- ✓ Bob Williams
- ✓ David Lester

Alternate:

- ✓ Ian Turnbull

Corning Sub-basin GSA (CSGSA)

- ✓ Julia Violich
- ✓ Brian Mori

Alternate:

- ✓ John Amaro

Agenda Review, Review of Groundrules

Ms. Leimbach welcomed meeting participants to the twelfth CSAB meeting. She reviewed the agenda and reminded attendees that CSAB meetings are following Brown Act guidelines. She invited members of the public to announce their name and affiliation into the chat box to be included in the meeting summary.

2. Public Comment for Items Not on the Agenda

- Tamara Williams (Ms. Williams)– I provided written comments by email to a few folks on this meeting and I want them submitted to the record.

3. Action Item: Approval of the Meeting Summary

Ms. Leimbach opened discussion and comments on the March Meeting Summary.

Brian Mori (Mr. Mori) made the motion: *The CSAB approves the CSAB March Meeting Summary.* Ian Turnbull (Mr. Turnbull) seconded the motion. Ms. Leimbach opened discussion on this motion. Hearing no comments from CSAB board members, she called a vote.

Vote:

TCFCWCD

- Bob Williams – Aye
- David Lester – Aye

Alternate:

- Ian Turnbull - Aye

CSGSA

- Julia Violich – Aye
- Brian Mori – Aye

Alternate:

- John Amaro – Aye

The Board unanimously approved the motion with a 6-0 vote.

4. GSA Updates

Mr. Teubert and Ms. Hunter reported out to the CSAB on the TCFCWCD and CSGSA, respectively.

TCFCWCD took the following actions over the last month:

- Sent out a quarterly newsletter in March to interested parties list which included an update on the Corning Subbasin.
- Outreached to the Paskenta Nomlaki Tribal Council with an update on SGMA and offered them the potential to engage and let us know how they want to be engaged.
- Outreached to Tehama County Cattleman’s Association and Farm Bureau.

CSGSA took the following actions over the last month:

- Approved the Chronic Lowering of Groundwater Levels Significant and Unreasonable Conditions Statement at the March CSGSA meeting.
- Declined to approve the CSAB recommended minimum threshold, measurable objective or the undesirable results and postponed decisions.
- Approved recommendation on GSP process and adoption timeline.
- Adopted a new schedule of CSGSA to meet monthly.
- Filled the CSGSA vacancy on the CSAB with Grant Carmon.
- Replaced Lisa Hunter with Brian Mori representing stakeholders on the CSAB.

Lisa Porta, Montgomery & Associates (M&A) (Ms. Porta) reviewed interbasin coordination actions over the last month:

- Met with Luhdorff & Scalmanini (LSCE), lead consultant for four subbasins in Tehama County, to discuss the approach to develop a coordinated data management system for the GSP. They are meeting again this month on the topic of data management systems.
- Participated in an interbasin coordination meeting between North Sacramento Valley subbasin technical consultants to strategize on a similar approach on streamflow depletion Sustainable Management Criteria (SMC). The boundaries of the subbasins are often defined by the Sacramento River and the parties want to make sure the approaches on either side of the river are similar and that they coordinate data.

5. Groundwater Level SMC

Review feedback and options for path forward on groundwater level SMC

Ms. Porta reviewed updated DWR website stakeholder information and an interface to report wells going dry.

She also reviewed GSP overview and status. It will be important when setting the groundwater level SMC to consider its effects on the related streamflow depletion SMC and storage decline SMC and to some degree the subsidence SMC.

Ms. Porta thanked everyone for their feedback on the proposed Groundwater Level SMC, particularly, feedback from the Tehama Groundwater Commission Meeting. The GSP team is reviewing feedback from GSAs, CSAB, and public comments, and recommendation to further review the approach.

CSAB Special Meeting

The GSP team is proposing to convene a special workshop on April 19, 26, or 27. The objective will be to spend more time on the Groundwater Level SMC item with the objective of making a recommendation to the GSAs for an SMC or come to general consensus on the approach.

Discussion: CSAB comments

Board members provided the following comments and recommendations on the process:

- Our responsibility as a Board is to refine this until we get it right.
- Public workshop in-person with option to videoconference in to be more productive.
 - Consider how to meet COVID restrictions including videoconference for those who cannot attend and using a bigger conference room.
- Schedule subsequent workshops if the CSAB does not make enough progress in the first one.

Board members, Ian Turnbull, Steven Gruenwald provided written comments including the following comments and recommendations on developing the minimum threshold:

- The best way to set the minimum threshold is using Allan Fulton's method for agricultural and domestic wells that we think is an acceptable failure rate.
- Since the GSAs lack the data to implement Allan Fulton's method, instead, set the minimum threshold well by well by referring to 2012-2015 and add a buffer, maybe 5 ft. Rationale is that this minimum

threshold would protect existing agricultural and residential wells that still produced under recent drought conditions between 2012-2015.

- Request to apply the approach for undesirable results.
- Request to run a projection for each scenario using the model that is being refined to get an idea of future scenarios.
- Recommend choosing the lowest measurement and improving the monitoring network and actively reviewing it.

Public Comment

- Ms. Williams, Landowner – How will the public be notified of the special meeting?
 - Ryan Teubert and Lisa Hunter – For Special meetings only 24-hours notice is required. Noticing will follow the regular process at least 72 hours in advance of the meeting notifications will go out to interested parties. However, the GSP team will try to notice the meeting sooner so that participants can plan to attend.

6. Review Subsidence SMC

Review draft Significant and Unreasonable Conditions statement, Minimum Thresholds and Measurable Objectives, and options for Undesirable Results

Ms. Porta reviewed the revised SMC statement for subsidence with the modified wording from the last meeting.

She reviewed three options for subsidence minimum thresholds.

CSAB Discussion of Subsidence SMC

The CSAB members proposed and agreed on the following revisions to the draft Subsidence SMC (additions are indicated with underline):

Inelastic land subsidence that adversely impacts fixed infrastructure and is caused solely by lowering of groundwater levels occurring in the subbasin is significant and unreasonable.

CSAB Discussion of Minimum Threshold

CSAB Members discussed the following issues related to the Minimum Threshold:

- Measurement
 - Remove the reference to INSAR data to keep the measurement generic and allow for changes in methodology.
- Subsidence Effects on Infrastructure
 - Collected input from local civil engineers which indicates there is no accepted value for subsidence affecting infrastructure.
 - Local geologist indicates that for bridges, 2.4-foot subsidence over 30 years will deplete the clearance from the bottom of the bridge to the high water in flood conditions.
 - Request to consider if there are non-fixed infrastructure that could be affected by subsidence.
- Subsidence in Adjacent Subbasins
 - Corning – experienced 0.4-ft. subsidence over 9 years without affecting infrastructure.
 - Colusa – experienced some more significant inelastic subsidence in the southern portion of the Subbasin and may consider a higher minimum threshold. Colusa Technical Advisory Committee will be reviewing 0.5 and 0.6-foot minimum threshold subsidence per year.

- Tehama – proposed but not yet approved 0.5-ft. subsidence minimum threshold (over a five-year period).
- Minimum Threshold
 - The Corning Subbasin does not currently have a subsidence problem.
 - Realistically Corning Subbasin will be trying to control sustainability and land subsidence through groundwater levels and can take corrective action to avoid any subsidence. The GSAs could take pre-emptive action to reduce continued subsidence if observed.
 - One subsidence minimum threshold gives more flexibility across the basin.
 - Consider building in a buffer in the minimum threshold for subsidence so that if any one area experiences subsidence, the GSA can solve it without the whole subbasin being out of compliance.
- Distinguishing causes of subsidence
 - The GSP will include an explanation describing measurement of the minimum threshold and interpretation of the subsidence cause. This explanation must distinguish between subsidence caused by groundwater decline as distinguished from earthquakes or other tectonic reasons.

Ms. Porta offered the following considerations and recommendations:

- The subsidence minimum threshold is the value the GSAs do not want to cross after 2042.
- M&A does not recommend adopting different minimum thresholds for different sub-areas.
- The adjacent basins have not adopted their subsidence thresholds yet; this subbasin could be the leader. Consider there is not a substantive difference between 0.4 and 0.5-ft minimum thresholds that would cause discord between the adjacent basins.
- Consider that a 0.5 ft subsidence over five-year MT would equate to 3 ft cumulative subsidence over the 30-yr implementation horizon. This total subsidence could affect infrastructure and this may not be considered sustainable.
- A 0.5-ft over 5 years subsidence minimum threshold is more subsidence than has been experienced in this subbasin in the past.
- Inelastic subsidence means the ground surface elevation will not recover to its previous levels.

The CSAB Members came to general agreement on the following preference for a minimum threshold for subsidence and edited statement:

- Preference for 0.5 feet of subsidence over a five-year period as a minimum threshold considering the following:
 - Alignment with adjacent subbasins using 0.5 feet subsidence as a minimum threshold.
 - TCFCWCD Board has expressed a preference for alignment of SMC's to the maximum extent possible for the subbasins, or portions of subbasins within the District's boundaries.
 - Flexibility to proactively address subsidence affecting certain subregions and stay in compliance.
- Modifications to the Minimum Threshold for Subsidence:

The minimum threshold for subsidence solely due to lowered groundwater elevations is no more than ~~0.4~~ 0.5 feet of cumulative subsidence over a 5-year period (beyond the measurement error ~~in addition to 0.1 ft InSAR error~~). If calculated on an annual basis this would be 0.10-18 ft on average.

CSAB Discussion of Measurable Objectives

The CSAB members discussed the following issues related to the Measurable Objectives:

- Consider setting the measurable objective to not exceed the last 10-year average of subsidence.

Ms. Porta offered the following considerations and recommendations:

- The Corning Subbasin is not currently experiencing wide-spread subsidence issues and the goal could be to keep it that way.

The CSAB Members came to general agreement on the following preference for a measurable objective for subsidence and edited statement:

- Modifications to the Measurable Objectives for Subsidence:

The measurable objective for inelastic subsidence solely due to lowered groundwater elevations is zero throughout the subbasin beyond any measurement error. ~~To account for error in the InSAR data, the annual measurable objective is set to 0.1 feet of subsidence per year, while maintaining no subsidence.~~

The CSAB agreed to return to the Subsidence SMC at a later meeting with the proposed revisions for the SMC Subsidence statement and Minimum Thresholds as well as a revised Measurable Objectives statement in answer to their proposals during this meeting.

Public Comment

- Lerosé Lane (Ms. Lane) – When you were talking about the .1 ft. You should add “or less” to the statement of Measurable Objectives
 - The CSAB recommended eliminating the sentence in question.
 - Ms. Lane – Will there be maximum allowable subsidence to trigger corrective action?
 - Ms. Porta – This threshold would be the maximum.
- Brandon Davison, DWR – Submitted the following excerpt from DWR’s Best Management Practices (BMPs) in the chat.
 - *Subsidence as an Example*
As described below, either approach could be applied to subsidence.
 - *Approach 1 – Groundwater level minimum thresholds are above historical low groundwater levels. The GSA determines and documents that avoidance of the minimum thresholds for groundwater levels will also ensure that subsidence will be avoided. In this approach, the GSA would be applying the same numeric definition to two undesirable results – chronic lowering of groundwater and subsidence (Figure 9).*
 - *Approach 2 – The GSA has determined that specific areas are prone to subsidence, knows what the historical low groundwater levels are for those areas, and has demonstrated that no additional inelastic land subsidence will occur as long as groundwater levels remain above historical lows. The GSA develops minimum thresholds for land subsidence based on groundwater levels*

for the areas prone to subsidence (Figure 9). These land subsidence representative monitoring sites are not necessarily included as representative.

7. Review Projected Water Budgets and Introduction to Storage Decline SMC

Review Key Takeaways from Water Budgets and How They Are Used in GSPs

Ms. Porta presented takeaways from the water budgets, clarified assumptions, and offered recommendations:

- The water budget includes future scenarios with projected climate change in which pumping is increasing due to demand driven by an increase in crop consumptive use.
- The projected pumping could cause the groundwater levels to decline to a point where the surface water becomes a losing rather than a gaining system. This would require more active monitoring near streams and an understanding if this condition becomes significant and unreasonable for beneficial users. This will be important information to consider for the special workshop meeting on the groundwater level SMC.
- For the 2070 projections, if population and agricultural growth is set at zero, the projection is based on agricultural land use in 2018 in Tehama County, and 2015 land use in Glenn County (based on currently available data).
- Recommendation to include increased agricultural acreage to be included in the 5-year update. We don't have a land use map that is accurate between 2018 and 2021.
- The team is working on a modeled scenario that includes assumptions for optimizing surface water use in the basin. These model results will be reviewed at a future meeting.

Review Information on Storage Decline SMC

Ms. Porta reviewed the regulations for storage decline SMC and the two approaches that can be used to set these SMC: either reporting actual pumping in the basin or using groundwater levels as a proxy. In addition, she made the following comments:

- If the basin water levels are staying above the groundwater level minimum threshold, the basin is on the path to sustainability and the storage decline would also be zero at sustainability (which is where you want to be).
- Sustainable yield is related to how the GSAs set thresholds. It is the amount of pumping without causing undesirable results.

CSAB Discussion

Board members and staff discussed the following:

- Question on which approach is best to use: The disadvantage to using groundwater levels as a proxy is that it is not exactly per the regulations.
- There is no basin-wide accurate measurement of pumping; The error associated with reporting groundwater pumping is based on an approximation of crop consumptive use and per capita water use. Therefore, there is uncertainty in trying to assess the level of pumping.
- By using groundwater levels as a proxy, the GSA can develop annual change in storage calculations by subtracting the water level data from the previous year to the current year. It's a nice way to check your change in water storage annually.

- The Storage Decline SMC would hinge on the Groundwater Level SMC. This approach avoids metering every pump in the area.

The CSAB members discussed the following initial preferences in relation to the Storage Decline SMC:

- Support for using groundwater levels as opposed to pumping data to measure the Storage Decline SMC.
- Preference for avoiding metering all groundwater wells to inform pumping data to evaluate storage decline.
- Suggestion to set the storage decline SMC after the groundwater level SMC.

Public Comment

- Ms. Williams, landowner and retired engineering geologist – I am concerned about shortsightedness of just using water levels for the minimum thresholds. It is reasonable to try to avoid reporting pumping. But given the planning horizon for this process, it would be worthwhile to lay the groundwork for getting a better handle on the pumping that goes on in the basin before 2072. In the next years, there will probably be some simple technology to add to every major pumping well to gather that data. I am not suggesting a heavy-handed governmental approach. I would submit that the major water users have a good idea of how much water they are applying. I suggest the GSA include the potential for incorporation of actual pumping groundwater extraction rates.

8. Initial Review of Projects and Management Actions

Review initial options on potential projects and management actions to maintain groundwater sustainability.

Ms. Porta reviewed potential areas for project ideas that assist with sustainability.

CSAB Discussion

Board members and staff discussed the following:

- Explore mitigation projects to deepen domestic wells below a certain groundwater level to allow production during droughts.
- Explore projects supporting dual water systems using USBR project surface water and groundwater.
 - Mitigate conversion costs to minimize groundwater use in the Stony Creek area.
 - Example from Orland Water Users Association area, where 4 water users draw on USBR project water to irrigate almonds. They have a dual system drawing on USBR project water and a well for frost protection. The system requires some additional filtering. They have been successful with this dual system. This could be an example for other areas that have access to surface water.
- Explore projects to increase surface water use to offset groundwater.
 - Preference to use surface water diverted from USBR's project water to decrease groundwater use in years when surface water is available.
 - USBR water prices are more expensive than pumping well water and surface water also requires additional filtering to irrigate trees. USBR price decrease seems non-negotiable. The increase in cost has driven growers to pump more groundwater instead of using surface water.
 - Suggest exploration of a project to develop a wintertime water diversion from Deer and Mill Creeks into the Corning Canal and into the seasonal creeks on the East Corning area. The USBR

website indicates that these creeks have water available for purchase for recharge. However, the cost to use that water for recharge may be prohibitive.

- Focus on incentive practices and avoid heavy handed coercive methods.

Ms. Porta provided guidance that the goal is to come up with 5-10 projects that are reasonable for the Corning Subbasin GSAs to implement.

Public Comment

- Ms. Williams – Is there a USBR representative involved in SGMA implementation?
 - Ms. Porta – There is a USBR representative in Willows with whom the GSAs have started to review GSP goals in the Subbasin and the challenges surrounding project water use.
 - Ms. Williams – I suggest the GSP include a clear description of the USBR pricing issue compared with the cost of groundwater pumping in the subbasin so that it is accessible to support restoring some surface water use in the subbasin historically.

9. Next Steps (Reminders)

Ms. Porta reviewed the schedule and next steps and agenda items for the next CSAB meeting:

- April – Special CSAB Meeting on Groundwater Level SMC to be scheduled
- May – Continue discussion on other SMCs
- June – Revise the list of projects and management actions and discuss funding.

10. Adjourn

Ms. Leimbach thanked Ms. Porta, CSAB members, and the public for participating in this great discussion and adjourned the meeting at 4:22 PM.

Meeting Participants

CSAB Members

- Brian Mori, Corning Sub-basin GSA
- Julia Violich, Corning Sub-basin GSA
- Bob Williams, Tehama County Flood Control and Water Conservation District (Board Member)
- David Lester, Tehama County Flood Control and Water Conservation District (Groundwater Commissioner)

CSAB Alternates

- John Amaro, Corning Sub-basin GSA
- Ian Turnbull, Tehama County Flood Control and Water Conservation District

Other Participants

- Allan
- Bill Crain
- Brandon Davison, DWR Northern Region

- Eddy Teasdale, LSCE
- Erin Smith, DWR Northern Region
- George Pendell
- Holly Dawley, GCID
- Jaime Lely, Landowner
- John McHugh, LSCE
- Kristina Miller, City of Corning, Tehama County GSA
- Leros Lane, Farmer/ private well
- Lisa Hunter, Glenn County Water Resources Coordinator
- Martha Slack, Rio Alto Water District
- Mary Fahey, Colusa Groundwater Authority
- Michael Ward, Landowner Thomes Creek Area
- Stephanie Horii, Consensus Building Institute
- Ryan Teubert, TCFCWCD
- Tamara Williams, Landowner
- Todd Hamer, Vice Chairperson, Los Molinos Community Services District

Consultants and Project Team

- Julie Leimbach, Kearns & West
- Lisa Porta, Montgomery & Associates