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**BUTTE COUNTY
TECHNICAL ADVISORY COMMITTEE
OF THE WATER COMMISSION**

MEETING DATE: Monday, March 20, 2023
TIME: 1:00 p.m. – 4:30 p.m.
LOCATION: Butte County Human Resources Training Room, East
3 County Center Drive
Oroville, CA 95965
No Online Option

AGENDA ITEMS

1. Introductions and TAC Roll Call
2. Election of Chair and Vice Chair for 2023 (Chair Connell)
3. * Approval of minutes for the November 14, 2022 meeting (Chair)
4. Sustainable Groundwater Management Act Updates (Staff, Water and Resource Conservation)
 - a. Vina, Butte and Wyandotte Creek Subbasin updates
5. *Presentation and discussion of the 2022 Water Year Annual Reports for the Butte, Vina and Wyandotte Creek subbasins and the 2022 Butte County Annual Groundwater Status Report outline (Kelly Peterson, Water and Resource Conservation)

Available for download here: <https://www.buttecounty.net/1224/Technical-Advisory-Committee>

6. Departmental updates (Staff, Water and Resource Conservation)
7. TAC members wishing to address items not listed on the agenda. (The Technical Advisory Committee is prohibited by state law from taking action on any item presented if it is not listed on the agenda).
8. Public Comment: Any person wanting to address the Technical Advisory Committee on any item NOT ON TODAY'S AGENDA may do so at this time. The Technical Advisory Committee will not be making decisions or determinations on items brought up during Public Comment.
9. Future Meeting topics, dates and locations:

* Indicates attached items



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**MINUTES OF THE
BUTTE COUNTY WATER COMMISSION
TECHNICAL ADVISORY COMMITTEE**

Monday, November 14, 2022 10:00 a.m.

AGENDA ITEMS

Introductions and TAC Roll Call

AB 361 – Authorization to Utilize Alternative Standards for Teleconferencing Public Meetings pursuant to the Ralph M. Brown Act (Christina Buck, Water and Resource Conservation)

Motion made by Richard Price, Second by Mike Crump, to authorize use of alternative standards for teleconferencing. Motion carried 5-0-1 with one abstention.

Approval of minutes for the July 19, 2022 meeting (Vice-Chair Morgado)

Motion made by Mike Crump, Second by Richard Price to authorize use of alternative standards for teleconferencing. Motion carried 5-0-1 with one abstention.

Presentation of the 2022 Groundwater Quality Monitoring Results (Kelly Peterson, Water and Resource Conservation)

Kelly Peterson gave the TAC a presentation on the 2022 Groundwater Quality Monitoring program including a high level review of the components of the program with a comparison to previous efforts done through the Butte County Basin Management Objective (BMO) program. Methods for data collection were discussed as well as results and the TAC was able to suggest adjustments to the monitoring program.

The TAC wanted clarification on whether salinity was monitored at just one multi-completion well out of many in the same location or of all of them. Staff explained that usually the deepest well of the multi-completion wells are the ones measured to stay in line with the goals of the program and that sometimes there are multiple screens within one well.

The TAC had questions about purging wells with pumps before measuring water samples and if any comparisons were made of electrical conductivity (EC) values taken before the purging. Staff replied that the purpose of purging isn't to mix the water but rather to sample aquifer water at the screened interval closest to the base of freshwater.

Eric Johnson (public) had questions about the validity of the process and program and whether or not this program considered other water quality constituents. Staff explained the water quality sections of the Groundwater Sustainability Plans and referred him to those for more detailed explanation.

The TAC also had questions about adding historical data to the graphs, staff explained it will be included in future steps. The TAC also briefly discussed expanding the network to test some of the shallower wells within the multi-completion wells. Staff explained that the deepest of the multi-completion wells were chosen with the goal of sampling deep waters close to the older deeper brackish or marine sediments and also because they were selected by the Groundwater Sustainability Agencies as Representative Monitoring Sites.

Of the sites that were measured in 2022, none of the sites in the Vina subbasin were observed to have EC values higher than the assigned Measurable Objectives (MOs). The Butte subbasin had one well, RMS well: 17N01W10A001M, that appeared over the MO in the graphics presented however when historical data was considered (post-meeting) the 2022 values were below the MO which was a historical 2016 value of 1,968 microsiemens per centimeter ($\mu\text{s}/\text{cm}$). The group noted that it would be interesting and worthy to measure multiple other wells in that area as the geology is complicated in that region. Saline water has been seen to be perched in shallow areas there, however there a number of wells nearby that particular well to get information from for help in understanding the general area. Only one well was above the MO in the Wyandotte Creek subbasin, 18N04E008M001M, and the circumstances surrounding that well were discussed. Along these same lines with the well in the Butte subbasin with an elevated EC level, the group agreed that known areas of perched saline water in the Wyandotte Creek subbasin should be further explored to increase knowledge of water quality in these areas.

The group also discussed adding trend components to the results graphics to view the rate of change of the EC values so that perhaps associated potential PMAs could be identified and implemented before problems occur by the GSAs if notable trends caused concern. The group also discussed that these analyses would also be part of the 5-year GSP updates. Staff did suggest that depth to water values could be added to the graphs along with an indication of whether or not the well is also an RMS well for water levels in the GSPs.

The TAC discussed using video logging equipment to understand obstructions that prevented some of the sites from being monitored at the mid-point of the screened intervals. DWR offered to assist with equipment in these next steps. The TAC thought these sites should still be measured as far down as possible even with obstructions.

The group also discussed that the GSAs in the Butte subbasin may want to establish a backup well in Butte or Glenn County in case there are future drought conditions preventing data collection as was the case with one well in 2022 (19N01W28 Red 27). There are two nearby multi-completion wells; 19N01W22D004-007 with deepest screened interval of 780' - 790' deep and 18N01W02E001-003 with deepest screened interval 720' - 730' deep that could be viable alternatives.

The TAC discussed if EC was measured during draw down conditions and if those values changed while pumping. Staff explained the limitations of the equipment to be used in wells without pumps and that the methods for sampling of wells with pumps was done post-purging (pumping) during the peak irrigation (drawdown/pumping) season.

Departmental updates (Staff, Water and Resource Conservation)

a. Drought Activities and Updates

Staff explained the drought outreach that has been happening through direct inquiries to the Dept. from the public experiencing drought impacts and the Drought Assistance program led by the Butte County Office of Emergency Services.

b. Sustainable Groundwater Management Act Updates

Staff provided highlights about the applications submitted to the DWR SGM Grant program that were underway. In the Vina subbasin, both Boards agreed to submit an application for a \$5.5M package of projects including but not limited to monitoring, GSP planning and compliance activities, feasibility and design for recharge projects. The Wyandotte Creek GSA Board approved an application for a package of projects including but not limited to monitoring wells, GSP compliance and reporting, a water plant capacity upgrade for the Thermalito Water and Sewer District and a feasibility study for recharge opportunities within the subbasin. The Butte Subbasin Advisory Board approved an application for a package of projects equaling \$10M including but not limited to completion of District projects and also to install shallow monitoring wells, complete monitoring, GSP planning and compliance activities, feasibility and design for recharge projects.

Long-term financing discussions for the Vina and Wyandotte Creek subbasins are planned for January and contracts are now being finalized for the consultant team.

c. Butte County Annual Groundwater Status Report

Staff described that the contracts were just approved for a contract with a consultant team to complete the Annual Groundwater Status reports for each subbasin as required by SGMA.

Public Comment

Eric Johnson had a public comment about irrigation efficiency and had concerns about how practices are not apparently changing. He asked what types of outreach are occurring and voiced concerns about impacts to adjacent domestic wells. He also was interested in knowing what the appropriate volumes of water per crop are. The TAC replied with information about an irrigation efficiency project that is being proposed as part of the Vina SGM implementation grant proposal which will address all of those items.

Future Meeting topics, dates and locations: Spring 2023 TBD

Meeting adjourned at 12:15 p.m.

**Water and Resource Conservation**

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MEMORANDUM

DATE: March 15, 2023

TO: Members of the Technical Advisory Committee of the Butte County Water Commission

FROM: Kelly Peterson, Water Resources Scientist

RE: Discussions Regarding the Sustainable Groundwater Management Act (SGMA) Annual Reports for the 2022 Water Year

Discussion Questions Regarding the SGMA Annual Reports for the 2022 Water Year

Background

Annual reports are a requirement for subbasins subject to the Sustainable Groundwater Management Act (SGMA). The Department has contracted with Luhdorff Scalmanini Consulting Engineers who has teamed with David's Engineering Inc. to complete the 2022 Water Year (WY) Annual Reports for the Butte, Vina, and Wyandotte Creek subbasins. One-time funding was approved by the Board of Supervisors in 2022 to support the 2022 WY Annual Reports for all three subbasins. Department staff are managing the contract to ensure all three subbasins meet these regulatory requirements.

The consultant team has worked diligently since early November 2022 on the content of these reports which will meet SGMA requirements for all three subbasins by characterizing groundwater conditions in each subbasin, including providing data on groundwater extractions, surface water used or available for use and change in groundwater storage. The reports include contour maps and hydrographs of groundwater elevations in 2022. Each report also describes how the Groundwater Sustainability Agencies (GSAs) are progressing in their efforts to implement their Groundwater Sustainability Plans. Lastly, 2022 land use maps are part of these reports along with a summary of drought impacts within each subbasin and an assessment of domestic well vulnerability.

The final reports have been provided through this link for the TAC to read prior to the March 20, 2023 meeting:

[Final Annual Reports: https://www.buttecounty.net/1224/Technical-Advisory-Committee](https://www.buttecounty.net/1224/Technical-Advisory-Committee)

Presentations will be made in April 2023 to the governing entities of the subbasins to convey the information in these Annual Reports and will be provided to the Stakeholder Advisory Committees for information dissemination

to their respective groups they represent locally. These reports will be submitted by the consultant team to DWR to meet regulatory deadlines via the SGMA Portal before the April 1, 2023 deadline.

Butte County has reported on groundwater conditions within the County since 2000. Given the submissions of the first SGMA related Annual Reports last year, the Butte County Annual Groundwater Status Report has recently transitioned appropriately to an overarching report providing a summary of the results of the three SGMA regulated subbasins located all or partially within Butte County. Staff would also like to discuss the outline of the Butte County Annual Groundwater Status report and receive feedback from the TAC on the role and scope of this report.

The focus of the March 20, 2023 TAC meeting will be to gather feedback from the TAC on the final versions of the Annual Reports for each of the three subbasins we work in with the goals of;

1. Discussing content for the 3 subbasin's Annual Reports including any technical aspects of interest as well as the Butte County Annual Groundwater Status Report
2. Receiving specific feedback on how to best convey the information to various audiences in a meaningful and understandable way with various time limitations

The following questions have been framed up by staff as a starting point to help guide these discussions and can be expanded upon as desired by the TAC during the meeting.

Discussion Questions:

1. Are there any specific pieces of information in the Annual Reports that any TAC member can provide perspectives on, given each member's expertise to help provide context to the information if/where needed?
2. Are there any specific pieces of information in the Annual Reports that are not as clear or as understandable as should / could be (including background/context, methods, results, discussion and/or conclusions of each section) and should be considered/clarified when presenting the information?
 - a. Butte Subbasin Annual Report
 - b. Vina subbasin Annual Report
 - c. Wyandotte Creek Annual Report
3. What are the three to five most important take-home messages from each report that should be conveyed to every audience during discussions, presentations and outreach about the content of the Annual Reports, scalable to the time available for presentations (i.e. 15 min. vs. 45 min. presentations)?

Audiences include:

 - a. GSA Boards / Decision-making bodies
 - b. GSA Advisory Committees
 - c. Butte County Board of Supervisors
 - d. Water Commission
 - e. General public (workshops or updates at other related meetings i.e. Butte County Drought Task Force)
4. Given that the Butte County Annual Groundwater Status Report has shifted towards becoming more of a synthesis and summary report of each of the three subbasin's Annual Reports into one report to provide

a broader County-wide perspective of groundwater conditions, is there anything notable that should be incorporated into or adjusted in the outline of the Butte County Annual Groundwater Status Report (attached)?

For reference, please see previous 2021 County-wide Annual Groundwater Status Report available here: <https://www.buttecounty.net/Archive.aspx?AMID=80>

Action Requested:

Accept for information and provide direction to staff through discussion of questions above.

Draft 2022 Butte County Annual Groundwater Status Report

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1. Acronyms and Definitions
2. Butte County Groundwater Status Report
 - 1.1 Introduction
 - 1.2 Report Organization
 - 1.3 Hydrologic Conditions - 2023 Water Year
 - 1.4 Drought Impacts
 - 1.5 Domestic Well Vulnerability Analyses
 - 1.6 Highlights from Subbasin Annual Reports
 - 1.6.1. Butte Subbasin
 - 1.4.1.1 Groundwater Conditions
 - 1.4.1.2 Groundwater Sustainability Plan Implementation Progress
 - 1.6.2 Vina Subbasin
 - 1.4.2.1 Groundwater Conditions
 - 1.4.2.2 Groundwater Sustainability Plan Implementation Progress
 - 1.6.3 Wyandotte Creek Subbasin
 - 1.4.1.1 Groundwater Conditions
 - 1.4.1.2 Groundwater Sustainability Plan Implementation Progress
 - 1.7 Discussion and Recommendations
 - 1.8 References

Attachments

- Attachment A - Butte Subbasin Annual Report
- Attachment B - Vina Subbasin Annual Report
- Attachment C - Wyandotte Creek Annual Report