

MINUTES
TECHNICAL ADVISORY COMMITTEE
BORREGO SPRINGS WATERMASTER
Meeting Conducted via GoToMeeting
Wednesday, August 31, 2022, 9:00 a.m.

I. Opening Procedures

Andy Malone (Technical Consultant, Borrego Springs Watermaster) called the meeting to order at about 9:00 a.m. and recognized that all four Technical Advisory Committee (TAC) Members were present at the start of the meeting.

The following individuals were present at the meeting:

Technical Advisory Committee Members	Leonardo Urrego-Vallowe; alternate for Robert Wagner, PE (representing AAWARE)
	Tom Watson, PG (representing T2 Borrego)
	Trey Driscoll, PG, CHG (representing Borrego Water District)
	Jim Bennett (representing the County of San Diego)
Watermaster Staff	Andy Malone, PG (Principal Geologist, West Yost)
	Samantha Adams, Executive Director (West Yost)
	Lauren Salberg, Staff Scientist (West Yost)
	Eric Chiang, Principal Engineer (West Yost)
Others Present	Abhishek Singh (Intera)
	Leanne Crow
	Dave Duncan (Chairman of the Board)
	Diane Johnson
	John Peterson
	Michael Wells
	Tammy Baker
	Tyler Bilyk
	Geoff Poole
	Travis Huxman

II. Public Comments

John Peterson asked if members of the public can submit comments on the draft technical memorandum on the extension of the BVHM. Andy Malone and Samantha Adams said there is nothing that prevents the public from submitting comments, and that Watermaster staff would submit the public comments to the TAC for consideration, but there is no official obligation for Watermaster Staff or the TAC to respond to the public comments.

III. Status Update: DWR Monitoring Well Funded through the DWR Technical Support Services

Mr. Malone provided an update on the California Department of Water Resources (DWR) Technical Support Services (TSS) being provided to the Borrego Water District (BWD) to construct a monitoring well in the Borrego Springs Subbasin. The TAC previously discussed the monitoring well and has recommended a location on property owned by T2 Borrego in the northern portion of the North Management Area as appropriate to fill an important gap in the monitoring network.

The main points from the update and TAC discussion were:

- DWR informed BWD and the Watermaster that the Watermaster should be the signatory to the TSS Agreement since it is the *de facto* GSA for the Basin. The BWD (as the original applicant for TSS) has informed Watermaster staff that it supports the DWR's position. However, the Watermaster Board must agree to accept this role and the associated costs and responsibilities.
- The DWR has extended the contract period until March 2023. The well is likely to be constructed this fall/winter.
- The DWR is potentially open to alternative well designs. Mr. Malone presented options for a "nested" set of three, depth-specific monitoring wells in one borehole versus a "clustered" set of three, depth-specific monitoring wells in three separate boreholes. Trey Driscoll indicated that the clustered approach is preferable to minimize the possibility of cross-communication between wells. Mr. Driscoll also offered a hybrid approach of two boreholes with three wells. Tom Watson (TAC member representing the landowner) indicated that one or two boreholes may be acceptable to the landowner, and that he would check.
- Mr. Malone said he will relay the TAC concept of a hybrid approach to the DWR for their consideration.

IV. Review draft results and draft technical memorandum on the extension of the Borrego Valley Hydrologic Model (BVHM) to support the update of the Sustainable Yield in 2025

West Yost staff provided an overview of the draft technical memorandum (TM) that describes the extension of the BVHM through water year (WY) 2021 and its ability to accurately estimate historical pumping (i.e., compare model-simulated pumping to metered pumping in WY 2021).

Main points and TAC discussion were:

- The BVHM was successfully extended and run through WY 2021 as demonstrated by:
 - Identical model results compared to Dudek's past model results over the period WY 1945-2016.
 - Model results for the extension period of WY 2017-2021 appear to be reasonable and consistent with recent historical trends in the simulated water budget.
- The Farm Process underestimated actual groundwater pumping by 4,456 af in WY 2021.
- There were several other discrepancies identified in the BVHM that could influence the BVHM results. Some of the main discrepancies discussed were related to recharge:
 - Approximately 36% of subsurface inflow was assigned to inactive cells, which could result in less recharge being assigned to the model than intended.

- Incorrect units were used for the streambed elevation in the Stream Flow Routing Package, which could result in less recharge being assigned to the model than intended.
- West Yost was not able to precisely identify and use the same methods employed by the USGS or Dudek to estimate surface-water inflows to the Basin from the upstream watersheds.

There was much discussion amongst the TAC during and after the presentation of this item. The general TAC consensus was:

- The Farm Process underestimation of actual groundwater pumping in WY 2021 by 4,456 af is significant; however, it only a one-year evaluation.
- The ability of the BVHM to accurately simulate recharge (i.e., surface-water and subsurface inflows) remains a concern.
- If the BVHM is improved to simulate historical pumping and recharge more accurately, it's likely that model recalibration will also be necessary.

Mr. Malone then presented potential recommendations for next steps:

- Execute the Board-approved scope of work for WY 2023 to compare FMP-estimated pumping to metered pumping for WY 2023, which may confirm the current findings. However, this work does not include budget to address the identified discrepancies in the BVHM.
- Address the identified model discrepancies, re-run the BVHM through WY 2021, and evaluate the influence of these improvements on the BVHM results.
- Other work that would represent the best use of the approved \$30,000 budget for WY 2023.

Mr. Driscoll recommended that the TAC meet again to discuss the scope of work for WY 2023. Mr. Malone recommended that the TAC could meet in October for this discussion, as well as to discuss the Groundwater Monitoring Program. Ms. Adams recommended that the TM could be finalized before the end of WY 2022 without including the final TAC recommendations for the scope of work for WY 2023.

V. Status Update: Groundwater Monitoring Plan

Mr. Malone informed the TAC that the current effort to update the Watermaster's Water-Quality Monitoring Plan is being expanded to include an update to the Watermaster's Groundwater-Level Monitoring Program. The first step is preparing a "Monitoring Gap Analysis" to identify gaps in the current monitoring programs that should be filled to achieve the objectives of the Judgment and the Groundwater Management Plan (GMP). Mr. Malone presented some examples of current work products. Mr. Malone stated that a draft TM on the Monitoring Gap Analysis will be published by September 30, 2022, and that the TAC should meet in October 2022 to discuss the draft TM.

VI. Public Comments (time permitting)

Diane Johnson asked how much budget has been expended on the BVHM extension in WY 2022 to assess the level of effort scoped out in WY 2023. Ms. Adams explained that about \$109,000 was budgeted in WY 2022.

Ms. Johnson also asked if climate is considered in the BVHM input data. Watermaster staff indicated that precipitation, temperature, and evapotranspiration are used.

John Peterson emphasized the need to expand the monitoring network, especially in the northern portion of the Basin, and volunteered to help.

Tammy Baker inquired if groundwater quality was being treated in the same way as groundwater levels in the Groundwater Monitoring Plan. Mr. Malone confirmed that both are being analyzed and improved in the same way.

VII. Future TAC Meetings

Mr. Malone stated that the TAC will likely meet in late October 2022 to discuss recommendations for BVHM improvements in WY 2023 and the Monitoring Gap Analysis.

VIII. Adjournment

Mr. Malone adjourned the meeting at about 11:05 a.m.