



Technical Advisory Committee Meeting

Borrego Springs Watermaster

April 27, 2021

Today's Agenda

1. Public Comment
2. Review Judgment requirements to redetermine the Sustainable Yield
3. Presentation by Dudek: Update and use of BVHM to develop the current Sustainable Yield
4. TAC discussion on the appropriate scope for WY 2022 and 2023 to redetermine Sustainable Yield
5. Public comment

Purpose of April/May TAC Meetings

Objective: Recommend a technical scope/budget for WY 2022 and 2023 by June 2021

1. Today's TAC meeting: Collect opinions on the appropriate technical scope for WY 2022 and 2023 to redetermine Sustainable Yield.
2. Opinions and information heard today will be used to prepare a draft scope and budget for WY 2022 and 2023:
 - a) Process to redetermine Sustainable Yield
 - b) Other technical efforts:
 - Groundwater quality monitoring plan
 - Method to compute storage change
 - Meter-reading program
 - Other (evaluation of transfers, TAC meetings, etc.)
3. Next TAC meeting (May 25 @ 1pm): Finalize TAC recommendation

Judgment requirements to redetermine the Sustainable Yield

- **Section IV.G.2 – TAC duties and responsibilities:**

“The Technical Advisory Committee’s responsibilities will include, without limitation, making recommendations based on best science and data collected regarding the Water Budget and the avoidance of Undesirable Result, determined by the TAC based on best available data, including without limitation information generated from BVHM model runs. Such assessment must consider all inflows and outflows from the Basin, including without limitation mountain front underflow and flux into the Borrego Springs Basin across the Coyote Creek fault and all other underflows, agricultural and recreational irrigation return flows; specific yield differences of the three aquifers (upper, middle and lower) within the different Management Areas of the Basin; and other matters approved by the Watermaster to improve upon initial assumptions regarding the Water Budget that will enable better Adaptive Management of the Basin.”

Judgment requirements to redetermine the Sustainable Yield

- **Section III.F. – Process to redetermine Sustainable Yield and Subsequent Rampdown**
 - Sustainable Yield is to be redetermined by January 1, 2025 → Re-determine ramp-down rate
 - TAC is to recommend a technical scope-of-work and budget for WY 2022 and 2023 by June 1, 2021 to address the required update of the Sustainable Yield. Considerations include:
 - Value of the work to attain improved understanding
 - Cost
 - The redetermination of the Sustainable Yield will include:
 - Collection of additional data
 - Update of the Borrego Valley Hydrologic Model (BVHM)
 - Use model runs to update the Sustainable Yield in collaboration with the TAC

Probable Path Forward

WY 2021/22

- Scope/Budget → Detailed

Potential Scope:

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-
-

WY 2022/23

- Scope/Budget → Conceptual

Potential Scope:

-
-
-

WY 2023/24

- Scope → Conceptual

Potential Scope:

-
-
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Dudek Presentation

How was the BVHM used to determine the Sustainable Yield?

What were the challenges in updating and using the BVHM?

What are the main model uncertainties?

Recommendations for model update?

Possible Path Forward

WY 2022

- Data collection
- Analyze BVHM
- Develop recommendation to update and use the BVHM (scope/budget)

WY 2023

- Data collection
- Update BVHM

WY 2024

- Data collection
- Use BVHM to redetermine Sustainable Yield

How should the BVHM be updated and used?

Data Collection to Improve BVHM

- Groundwater pumping
- Groundwater levels
- Reference elevations at wells
- Hydrogeology and aquifer properties
- Stream discharge
- Land use
- Parcels on septic

Method to redetermine Sustainable Yield

- Same as prior method?
- Alternative method?

Model Update

- MODFLOW-OWHM
- Basin Characterization Model (BCM)
- Farm Process (FMP)
- Grid cell size
- Is recalibration necessary?

Next TAC Meeting (May 25 at 1pm)

1. Finalize recommendation for technical scope/budget for WY 2022 & 2023, which will include:
 - Process to redetermine Sustainable Yield based on opinions and information heard today
 - Other technical efforts:
 - Developing a workplan for a groundwater quality monitoring plan
 - Developing a method to compute storage change for SGMA compliance
 - Providing guidance for the meter-reading program
 - Ad hoc Board requests (evaluation of transfers, TAC meetings, etc.)
 - TAC meetings
2. Check in on the meter-reading program

THANK YOU

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