

**Borrego Springs Watermaster  
Technical Advisory Committee Meeting  
April 8, 2026 @ 10:00 a.m.  
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**AGENDA**

*Items with supporting documents in the TAC-EWG Meeting Package are denoted with a page number.*

- I. Roll Call**
  
- II. Public Comments**  
*This is an opportunity for members of the public to address the TAC and EWG on items included on the agenda. Comments will be limited to three minutes per commenter.*
  
- III. Draft TAC/EWG Recommendation Report - Assessment of UCI GDE Study Report as “Best Available Science” and Recommendations for Next Steps .....Page 2**
  
- IV. Public Comments (time permitting)**  
*This is an opportunity for members of the public to address the TAC and EWG on items discussed during the meeting. Comments will be limited to three minutes per commenter, time permitting.*
  
- V. Future Meetings**
  
- VI. Adjournment**

**Borrego Springs Watermaster  
Joint TAC / EWG Meeting  
April 8, 2026  
AGENDA ITEM III**

**To:** Technical Advisory Committee and Environmental Working Group  
**From:** Andy Malone, PG (West Yost), Technical Consultant  
**Date:** April 1, 2026  
**Subject:** Draft TAC/EWG Recommendation Report - Assessment of UCI GDE Study Report as “Best Available Science” and Recommendations for Next Steps

**Background**

At its November 3 and 19, 2025 meetings, the Watermaster Board approved a scope of work and budget for West Yost (as the Watermaster’s Technical Consultant [TC]) to: (i) perform a technical review of UCI GDE Study Report as best available science (BAS); (ii) prepare a recommendation report for the Board; and (iii) facilitate the preparation of recommendation reports to the Board from the TAC and EWG. The following table presents the full schedule of activities to review the UCI GDE Study Report along with the current status of each activity.

Schedule	Activities	Status
November 2025	<ul style="list-style-type: none"> <li>Review UCI GDE Study Report</li> <li>Review TAC/EWG comments on UCI GDE Study Report</li> <li>Coordinate with UCI/TAC/EWG</li> </ul>	<ul style="list-style-type: none"> <li>Completed initial review of the UCI GDE Study Report.</li> <li>Received and reviewed all comments on the UCI GDE Study Report from TAC/EWG members, which included: County of San Diego, Borrego Water District, AAWARE, and the Community of Borrego Springs.</li> <li>Corresponded with the report authors from UCI to ask and answer questions on the report.</li> </ul>
December 2025	<ul style="list-style-type: none"> <li>Begin preparation of Draft TC Recommendation Report</li> </ul>	<ul style="list-style-type: none"> <li>Completed</li> </ul>
January 2026	<ul style="list-style-type: none"> <li>Complete Draft TC Recommendation Report</li> </ul>	<ul style="list-style-type: none"> <li>Completed. Draft report sent to TAC/EWG on February 13, 2026.</li> </ul>
February 2026	<ul style="list-style-type: none"> <li><b>TAC/EWG meeting</b> to review Draft TC Recommendation Report</li> <li>Receive TAC/EWG feedback on Draft TC Recommendation Report</li> </ul>	<ul style="list-style-type: none"> <li>Completed. Joint TAC/EWG meeting was on February 26, 2026.</li> </ul>

Schedule	Activities	Status
March 2026	<ul style="list-style-type: none"> <li>Prepare draft TAC/EWG Recommendation Report based on TAC/EWG feedback</li> </ul>	<ul style="list-style-type: none"> <li>Completed. Draft report sent to TAC/EWG as part of April 2026 joint TAC/EWG meeting packet.</li> </ul>
April 2026	<ul style="list-style-type: none"> <li><b>TAC/EWG meeting</b> to discuss draft TAC/EWG Recommendation Report</li> <li>Prepare draft-final TAC/EWG Recommendation Report based on TAC/EWG feedback</li> </ul>	<ul style="list-style-type: none"> <li>The joint TAC/EWG meeting is scheduled for April 8, 2026.</li> </ul>
May 2026	<ul style="list-style-type: none"> <li>Prepare Final TC and TAC/EWG Recommendation Reports</li> <li><b>Board meeting</b> to discuss Final TC and TAC/EWG Recommendation Reports and recommended next steps</li> </ul>	<ul style="list-style-type: none"> <li>Not yet started</li> </ul>
June 2026	<ul style="list-style-type: none"> <li><b>Board meeting</b> to approve scope of work for next steps, if any, in WY 2027</li> </ul>	<ul style="list-style-type: none"> <li>Not yet started</li> </ul>

### **TAC/EWG Recommendation Report**

Following the February 26, 2026 TAC/EWG meeting, the members were asked to submit written feedback on (i) their final assessment of the UCI GDE Study Report as BAS and (ii) any recommendations they may have for the Board regarding appropriate next steps on the GDE issue. Based on feedback received from TAC/EWG members, the TC prepared a draft TAC/EWG Recommendation Report. The main objectives of the TAC/EWG Recommendation Report are to:

1. Summarize the opinions of the TAC/EWG members on their assessment of the UCI GDE Study Report as BAS that can be relied upon by the Watermaster to take action or make policy decisions.
2. Summarize the recommendations of the TAC/EWG members for next steps for Watermaster Board consideration.

The draft TAC/EWG Recommendation Report is attached to this memo and will be the primary topic of discussion at the April 8, 2026 TAC/EWG meeting.

### **TAC/EWG Meeting Objectives and Procedures**

Before the joint TAC/EWG meeting on April 8, 2026, **please review and come prepared to discuss the draft TAC/EWG Recommendation Report.** The objectives of your review are: (i) to ensure the report is an accurate and complete summary of your opinions and recommendations and (ii) to understand the opinions and recommendations of the other TAC/EWG members.

The TC will start the meeting with a summary of the draft TAC/EWG Recommendation Report. At the meeting, each TAC/EWG member will have the opportunity to further describe their opinions and recommendations, as well as ask and answer questions of other TAC/EWG members and the TC.

Following the meeting, the TAC/EWG members will have two weeks to submit any suggested refinements and/or additional supplemental information they want to include in the final TAC/EWG Recommendation Report. The deadline to submit suggested refinements and/or additional supplemental information is **April 22, 2026**. A draft-final TAC/EWG Recommendation Report will be circulated by email with the TAC/EWG to finalize the report, which will be shared with the Board at its May 20, 2026 meeting. The Board may use the TAC/EWG/TC recommendations to develop scope and budget for the Watermaster's WY 2027 budget.

### **Attachments**

*Draft TAC/EWG Recommendation Report - Assessment of UCI GDE Study Report as "Best Available Science" and Recommendations for Next Steps*

**TAC/EWG RECOMMENDATION REPORT (DRAFT)**

DATE: April 1, 2026

TO: Board of Directors  
*Borrego Springs Watermaster*

FROM: Technical Advisory Committee/Environmental Working Group  
*Borrego Springs Watermaster*

SUBJECT: Assessment of UCI GDE Study Report as “Best Available Science” and Recommendations for Next Steps

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**BACKGROUND AND OBJECTIVES**

In the early 1900s, prior to significant groundwater pumping in the Basin, groundwater levels were much higher compared to current conditions, and a large GDE existed in the vicinity of the BS where groundwater levels were at or near the ground surface. The phreatophytes that comprised the GDE consisted of Mesquite trees, salt grass, willow, and rushes, collectively referred to herein as the “BS Mesquite Bosque.” Subsequent groundwater pumping in the Basin caused significant declines in groundwater levels, which resulted in degradation in the extent and health of the BS Mesquite Bosque.

Appendix D4 of the Borrego Springs Watermaster’s current Groundwater Management Plan ([GMP](#))<sup>1</sup> states that the rooting depths of the BS Mesquite Bosque became largely disconnected from the regional aquifer of the Basin by about 1985 because of the long-term declines in groundwater levels that occurred across the Basin since the 1940s. Therefore, the BS Mesquite Bosque was not considered a GDE in the GMP.

A study of the BS Mesquite Bosque was recently conducted by the University of California Irvine (UCI) to generate more information on the groundwater dependency of the BS Mesquite Bosque, which has been documented in a report ([UCI GDE Study Report](#)).<sup>2</sup> The UCI GDE Study Report evaluated multiple lines of evidence and concluded that the BS Mesquite Bosque is connected to the regional aquifer system, functions as a beneficial user of the Basin, and therefore, should be recognized and considered as a beneficial user of groundwater in the Watermaster’s GMP.

In May 2024, the Watermaster approved a policy regarding the use of “best available science (BAS).”<sup>3</sup> This policy permits the use of technical information not generated by the Watermaster to inform its policy decisions; however, the Watermaster shall not rely on or use such technical information to take action or make policy decisions without an independent review and recommendation from the Technical Advisory Committee (TAC), the Environmental Working Group (EWG), and/or Watermaster technical consultants. While the UCI GDE Study Report may provide useful new information, the Watermaster has not completed a formal review of the report, and hence, has not yet determined that the UCI GDE Study Report

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<sup>1</sup> [https://borregospringswatermaster.com/wp-content/uploads/2022/10/Exhibit-1\\_GMP.pdf](https://borregospringswatermaster.com/wp-content/uploads/2022/10/Exhibit-1_GMP.pdf)

<sup>2</sup> [https://borregospringswatermaster.com/wp-content/uploads/2025/07/GDE-Final-report\\_15May2025-1.pdf](https://borregospringswatermaster.com/wp-content/uploads/2025/07/GDE-Final-report_15May2025-1.pdf)

<sup>3</sup> [https://borregospringswatermaster.com/wp-content/uploads/2025/02/BSWM-Policy-on-Use-of-Best-Available-Science\\_final.pdf](https://borregospringswatermaster.com/wp-content/uploads/2025/02/BSWM-Policy-on-Use-of-Best-Available-Science_final.pdf)

TAC/EWG Recommendation Report (**DRAFT**)

Assessment of UCI GDE Study Report as “Best Available Science” and Recommendations for Next Steps

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constitutes “best available science” that can be relied upon by the Watermaster to take action or make policy decisions.

At its November 3 and 19, 2025 meetings, the Watermaster Board approved a scope of work and budget for West Yost (as the Watermaster’s Technical Consultant [TC]) to: (i) perform a technical review of UCI GDE Study Report as “best available science [BAS]”; (ii) prepare a recommendation report for the Board; and (iii) facilitate the preparation of a recommendation report to the Board from the TAC and EWG. The scope-of-work is summarized in Table 1 below.

<b>Table 1. Scope-of-Work to Perform a Technical Review of the UCI GDE Study Report</b>		
<b>Task No.</b>	<b>Task Description</b>	<b>Schedule</b>
1	TAC/EWG/TC review of UCI GDE Study Report as BAS	November 2026
2	TC reviews TAC/EWG comments on UCI GDE Study Report	
3	Prepare Draft TC Recommendation Report	Nov 2025 – Jan 2026
4	TAC/EWG meeting to review Draft TC Recommendation Report and receive TAC/EWG feedback	February 2026
5	Prepare Draft TAC/EWG Recommendation Report on BAS and next steps (based on TAC/EWG feedback)	March 2026
6	TAC/EWG meeting to review Draft TAC/EWG Recommendation Report and receive additional TAC/EWG feedback	April 2026
7	Prepare Draft-Final TAC/EWG Recommendation Report (based on TAC/EWG feedback)	
8	Prepare Final TC and TAC/EWG Recommendation Reports	May 2026
9	Board meeting to present the Final TC and TAC/EWG Recommendation Reports, including discussion on recommended next steps	May 20, 2026

As of April 1, 2026, Tasks 1-5 have been completed, including the preparation of this draft TAC/EWG Recommendation Report based on all feedback received from TAC and EWG members. The main objectives of this Recommendation Report are to:

1. Summarize the opinions of the TAC/EWG members on their assessment of the UCI GDE Study Report as BAS that can be relied upon by the Watermaster to take action or make policy decisions.
2. Summarize the TAC/EWG member recommendations to the Board for next steps, if any.

## **SUMMARY OF TAC/EWG ASSESSMENT AND RECOMMENDATIONS**

Through the execution of Tasks 1-4 of the scope-of-work, the TAC/EWG members were provided opportunities to submit written feedback on their assessment of the UCI GDE Study Report as BAS and their recommendations to the Board for next steps regarding the GDE issue. Table 2 summarizes this feedback by TAC/EWG members. A total of six recommendations were received from the following TAC/EWG members (commenters):

TAC/EWG Recommendation Report (**DRAFT**)

Assessment of UCI GDE Study Report as “Best Available Science” and Recommendations for Next Steps

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1. Robert C. Wagner, P.E.; Wagner & Bonsignore Consulting Civil Engineers (TAC member representing AAWARE)
2. Mark C. Jorgensen (EWG member representing Borrego Springs Community)
3. Trey Driscoll, PG, CHG; INTERA (TAC member representing BWD)
4. Jim Bennett, P.G., C.HG. (TAC/EWG member representing the County of San Diego)
5. Tom Watson, PG.; Aquilogic (TAC member representing Rams Hill)
6. John Peterson P.G., C.HG. (TAC/EWG member representing The Road Runner Club)

One (1) TAC member and three (3) EWG members did not submit written feedback.

Table 2 includes weblinks to each written submission by the TAC/EWG members for a complete record of TAC/EWG opinions and recommendations. To access all written submissions, you may download a zipped file [here](#).<sup>4</sup>

### Summary of TAC/EWG Opinions

TAC/EWG members expressed a range of perspectives on whether the UCI GDE Study Report constitutes BAS and whether the BS Mesquite Bosque should be classified as a GDE. Key observations from the comments include:

- Best Available Science:
  - Four commenters conclude that the UCI report, on its own, does not constitute BAS for management decisions, though some note it provides useful information.
  - 2 of 6 commenters consider the UCI report to represent BAS.
- Mesquite Bosque as a GDE:
  - Three commenters do not take a definitive position, citing uncertainty or insufficient evidence.
  - Two commenters conclude that the Mesquite Bosque is likely not a GDE.
  - One commenter supports classification of the Mesquite Bosque as a GDE.
- Overall, comments reflect differing technical interpretations and levels of confidence in the available data, with several commenters highlighting uncertainty and limitations in the current understanding.

### Recommended Actions Identified in Comments

Across the comments, several recurring recommendations and suggested actions were identified:

- Avoid relying solely on the UCI study for management decisions at this time. Multiple commenters indicated that the study should not be used as a standalone basis for policy or setting/changing Sustainable Management Criteria (SMC).

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<sup>4</sup> [https://borregospringswatermaster.com/wp-content/uploads/2026/03/TAC-EWG\\_Comments\\_GDE.zip](https://borregospringswatermaster.com/wp-content/uploads/2026/03/TAC-EWG_Comments_GDE.zip)

TAC/EWG Recommendation Report (**DRAFT**)

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- Incorporate the UCI study as one line of evidence within a broader body of science. Several commenters suggested considering the study alongside existing GMP information and other available data.
- Maintain focus on the Watermaster’s core Basin-management initiatives:
  - Pumping reduction and groundwater stabilization
  - Monitoring-driven, adaptive management
- Expand and refine monitoring and data collection. Suggested actions include:
  - Expanding groundwater-level and vegetation monitoring networks
  - Integrating vegetation metrics (e.g., NDVI), soil moisture, and precipitation data
  - Improving understanding of depth-to-groundwater and vadose zone processes
- Conduct additional technical and hydrogeologic investigations. Suggested efforts include:
  - Geophysical investigations, coring, and multi-depth wells
  - Evaluation of unsaturated zone processes
  - Continued refinement of the hydrogeologic conceptual model
- Evaluate findings through established Watermaster processes. Several commenters referenced:
  - Continued TAC and stakeholder engagement
  - Integration of new information through future GMP updates and the 5-year GMP assessment process

Given the range of perspectives and differing technical interpretations expressed, the TAC/EWG input did not result in a consensus recommendation to the Board at this time.

## **ATTACHMENTS**

Table 2. Borrego Springs Mesquite Bosque – TAC/EWG Review of UCI GDE Study Report  
*Comparison of assessments of “best available science” and recommended next steps*

**Table 2. Borrego Springs Mesquite Bosque – TAC/EWG Review of UCI GDE Study Report**

*Comparison of author/team assessments of “best available science” and recommended next steps*

TAC/EWG Member/Team	Comment Letter(s) Received	Assessment of UCI GDE Study Report as “Best Available Science”	View on Mesquite Bosque as a GDE	Recommended Next Steps and/or Management Actions
<b>AAWARE</b> Robert C. Wagner, P.E. (TAC) Jan Hendrickx, PhD Leonardo Urrego-Vallowe, M.S.	<a href="#">10/8/2025: Comments on UCI GDE Report</a> <a href="#">3/6/2026: Non-GDE Findings 219A</a> <a href="#">3/6/2026: Non-GDE Findings 220A</a> <a href="#">3/12/2026: Recommendations</a>	No. The UCI report by itself should not be considered BAS for policy decisions. Some methods/components of the UCI report are useful (e.g., DisALEXI for ET estimation), but UCI has misinterpreted some of its own data, and hence, overstated groundwater reliance of the bosque. The better BAS framework is the body of all scientifically sound information (including Appendix D4 of the GMP), not a single report.	The available data indicate that the Mesquite Bosque functions as a "non-GDE" sustained by surface-derived water, vadose-zone storage, and run-on rather than the regional aquifer system. More data are not needed to support this "non-GDE" conclusion.	Do not rely on the UCI report alone for groundwater management. Implement a monitoring approach similar to that proposed by the County of San Diego TAC member, but add precipitation monitoring using roughly 4–6 tipping-bucket rain gauges within the bosque. Integrate precipitation monitoring with NDVI, soil moisture, and groundwater monitoring.
<b>Borrego Springs Community</b> Mark C. Jorgensen (EWG)	<a href="#">9/24/2025: Comments on UCI GDE Report</a> <a href="#">3/12/2026: Review of TC Report</a>	Yes. The UCI report is the best science currently available. Rejects the idea that a BAS determination requires every possible data gap to be filled.	Unequivocal yes. The Mesquite Bosque is a GDE and a beneficial user of groundwater.	Accept the UCI report as BAS. Accept GDE status for the Mesquite Bosque. Allocate 645 acre-feet per year for the GDE in the annual water budget. Consider Mesquite ecology in future statewide water-related funding opportunities. Stop prolonging the BAS review process.
<b>BWD</b> Trey Driscoll, PG, CHG (TAC) Adam Norris, PG, CHG Wesley Neely, PhD Trevor Jones, PhD Guillermo Martinez, PhD, PE	<a href="#">10/24/2025: Comments on UCI GDE Report</a>	Nuanced/mixed. The UCI report provides new information and multiple lines of evidence that the bosque relies on a combination of surface water, groundwater, and possibly unsaturated-zone water, but notes several data gaps and misinterpretations of the existing data. The UCI report does not provide a clear path for direct integration into basin management. In sum, the UCI report is informative, but not yet management-ready BAS.	BWD does not reject groundwater dependence outright; it describes the bosque as relying on a combination of water sources and highlights the potential for groundwater accessibility within Mesquite rooting depths in some areas, while stressing uncertainty about true depth to groundwater and the possibility of perched groundwater/vadose-zone storage as waters available for Mesquite uptake.	Use the UCI study as new information, but do more hydrogeologic and monitoring work before changing sustainable management criteria or adopting bosque-specific management thresholds. Additional work could include: expand the GDE monitoring well network (BSMW-5R, MW-3, MW-4, MW-5B, WWTP-1, WWTP-2, WWTP-3, WWTP-4S, WWTP-4D, Berkovitch, County Yard); install transducers in WWTP wells; conduct additional hydrogeologic investigations (surface geophysics, sonic coring, multi-depth wells, resistivity/groundwater comparisons); evaluate the unsaturated zone with Hydrus or similar; coordinate next steps through the TAC/stakeholder process.
<b>County of San Diego</b> Jim Bennett, P.G., C.HG. (TAC/EWG)	<a href="#">10/9/2025: Comments on UCI GDE Report</a> <a href="#">3/9/2026: Recommendations</a>	No. Largely, the UCI report is not BAS that should be used for making policy/management decisions. The County rates some sections of the UCI report as pending expert verification or still uncertain, but finds most major hydrogeologic interpretations “Not Met” as BAS, especially the perched groundwater analysis, mapping of depth to groundwater, isotope-based GDE classification, ET attribution, and groundwater-level threshold concepts.	The County does not give a simple yes/no GDE conclusion. Instead, it says the current record does not support defensible groundwater-elevation thresholds for the remaining bosque and that SGMA obligations should remain centered on managing long-term groundwater decline.	Keep groundwater basin management focused on the pumping rampdown and groundwater stabilization. Monitor groundwater levels in and around the bosque plus NDVI/vegetation conditions. Integrate the UCI information and monitoring data through the GMP update process (next due in 2030). Prepare a technical memorandum for legal review on what SGMA requires in response to what is currently known and understood about the bosque. Consider the use of intra-basin transfers as a tool if local pumping reductions ever become necessary.
<b>Rams Hill</b> Tom Watson, PG (TAC) Sean Hartman, PhD	<a href="#">2/4/2026: Comments on UCI GDE Report</a> <a href="#">3/7/2026: Recommendations</a>	No. The stable isotope analysis as a method to determine the water(s) available to plants can be BAS, but the UCI interpretation of the isotopic data is not BAS. UCI’s deuterium-excess framework obscures the non-linearity in the isotopic data. Therefore, the UCI study does not meet BAS sufficient for Watermaster policy decisions.	More likely than not, the Mesquite Bosque is not a GDE. The isotopic analyses performed by Rams Hill experts indicate 0% groundwater use by the Mesquite Bosque in the most representative models.	In its current form, the UCI study should not be used to make policy decisions or make changes to the Watermaster’s GMP. If additional work is performed, focus on filling data gaps as identified in several TAC comments.
<b>Road Runner Club</b> John Peterson P.G., C.HG. (TAC/EWG)	<a href="#">3/24/2026: Comments on UCI GDE Report</a>	Yes. The UCI report represents BAS because the scientists that conducted the study are well qualified and experienced.	None stated.	None stated.

Acronyms:

BAS = Best Available Science; ET = evapotranspiration; GDE = groundwater dependent ecosystem; NDVI = Normalized Difference Vegetation Index; SGMA = Sustainable Groundwater Management Act; UCI = University of California at Irvine