FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A State of California Water Agency

April 22, 2026

Board of Directors
Fox Canyon Groundwater Management Agency
800 South Victoria Avenue
Ventura, CA 93009-1610

SUBJECT: Receive and File a Presentation on the Las Posas Valley Draft Basin Optimization Yield Study – *(Returning Item)*

RECOMMENDATIONS: (1) Receive and file a presentation from Agency staff on the draft Las Posas Valley Basin Optimization Yield Study, and **(2)** Provide direction to staff.

BACKGROUND

The Las Posas Valley Judgment (Judgment) requires Watermaster to prepare a Basin Optimization Yield Study (BOYS), a technical study to establish the Basin Optimization Yield, with committee consultation (Judgment, §§ 3.3, 4.10, 5.1.). The Basin Optimization Yield is defined as, "the estimated yield projected to be available to achieve Sustainable Groundwater Management by 2040" (Judgment, § 1.21) or the production rate, with implementation of Basin Optimization Projects, that can be reasonably implemented by 2040 and maintains groundwater elevations above the minimum thresholds established in the Groundwater Sustainability Plan (GSP). The BOYS follows the Basin Optimization Plan (BOP) whose purpose is to evaluate and select Basin Optimization Projects that are likely to be practical, reasonable, and cost-effective to implement prior to 2040 with the goal of maintaining the operating yield at 40,000 acre-feet per year (AFY) or as close thereto as possible.

While exigent circumstances delayed the completion of this study, staff updated your Board and the advisory committees, Policy Advisory Committee (PAC) and Technical Advisory Committee (TAC), of these challenges and provided alternatives for your Board in consultation with the PAC and TAC to consider; your Board directed staff and consultant Dudek to pursue recommended alternatives to ensure completion of the study per the Judgment. This BOYS is the first iteration of a technical document intended to establish the Basin Optimization Yield as defined in the Judgment, with at least two more iterations scheduled for 2030 and 2035, to allow for adaptative management of the Basin. On March 25, 2026, staff presented the draft BOYS to your Board and stakeholders per the updated schedule (attached as Exhibit 17A) and indicated that the Item would return

for discussion and your Board's direction at the April 2026 Watermaster meeting, with the goal to have the final version ready for adoption in May 2026.

DISCUSSION

The Basin Optimization Yield was evaluated using numerical groundwater model simulations that incorporated differing groundwater production rates and two projects selected in the Basin Optimization Plan that provided quantifiable groundwater benefits at a level of detail that could be included in the modeling; BOP Project 2, Purchase of Imported Water from Calleguas Municipal Water District (CMWD) for Basin Replenishment, and BOP Project 5, Arroyo Simi-Las Posas Water Acquisition. The scenarios evaluated included a Baseline Scenario, in which groundwater production equaled the initial Operating Yield of 40,000 AFY set by the Judgment, a Projects Scenario with BOP Projects 2 and 5, and two Rampdown Scenarios recommended by the TAC provided as informational items.

As has been the practice for numerical groundwater modeling in the Basin, two models were utilized for this study:

1) The Groundwater Flow model developed by Intera for CMWD applied in the East Las Posas Management Area (ELPMA), and
2) the Coastal Plain Model developed and maintained by United Water Conservation District (UWCD) applied in the West Las Posas Management Area (WLPMA). The same versions of these two models were used for the First Periodic Evaluation of the Groundwater Sustainability Plan.

Results indicate that groundwater production rates at the Baseline Scenario (40,000 AFY) are unsustainable with groundwater elevation levels across management areas falling below the minimum thresholds set in the GSP. The Projects Scenario suggests sustainability can be achieved by fully implementing Project 2, targeting areas showing chronic declines in groundwater elevation levels while maintaining flow in the Arroyo Simi-Las Posas. The estimated Basin Optimization Yield, at 40,000 AFY, less the reductions at the in-lieu project wells of 3,140 AFY [1,760 AFY in the WLPMA and 1,380 AFY in the ELPMA], results in a net yield or groundwater production or Basin Optimization Yield of 36,860 AFY. If the projects are fully implemented per the schedule, the groundwater modeling forecasts that rampdown will not be needed. However, it is important to note that the participation of the modeled in-lieu recipients in the Projects Scenario will be critical for the successful implementation of the projects.

The BOYS notes that numerical groundwater model predictions are better at evaluating trends than absolute water levels and both models used have uncertainty related to data inputs, etc., as acknowledged by both PAC and TAC to Watermaster. While all numerical models have result uncertainty, the groundwater production distribution as presented in this study is another area of significant uncertainty due to the distribution being based on a single year of water use reporting since Judgment implementation, Water Year 2023-24. The Judgment significantly altered groundwater allocations from the historical pumping patterns; thus, this uncertainty can only be reduced by additional groundwater extraction and use reporting for use in successive iterations of the BOYS. In addition,

UWCD changed the boundary condition from the model version used for the GSP to allow flow in the lower aquifers from the WLPMA to the ELPMA across the Somis Fault Zone, which is inconsistent with hydrogeologic conditions. These uncertainties were highlighted by staff and Dudek to your Board, PAC and TAC at various points during development of the BOYS and all parties agreed that even with these uncertainties the model remained the best available tool to estimate the Basin Optimization Yield.

Ongoing monitoring of Key Wells will confirm that measured groundwater elevations are consistent with forecasted groundwater elevations, simulated by the numerical models to provide assurance that undesirable results will not occur after 2040. Subsequent iterations of the BOYS in 2030 and 2035, as well as robust groundwater elevation level monitoring, will be important for adaptative Basin management.

If projects are not fully implemented as scheduled, Watermaster must then institute rampdown to achieve sustainability per the Judgment. A Basin-wide Rampdown Scenario indicates that a 20% (8,000 AF) reduction in pumping from the initial Operating Yield of 40,000 AFY would bring the Basin into sustainability but would reduce production rates to 32,000 AFY with a Rampdown Rate of 571 AFY for each of the 14 water years from fall 2026 through fall 2039. However, because the management areas are distinct, an across-the-board, Basin-wide rampdown might be an inappropriate or oversimplified approach to achieve sustainability in the Basin, hence the Differential Rampdown Scenario, meant to study localized restrictions on extractions (per Section 4.10.3 of the Judgment), suggested by the TAC. The Differential Rampdown Scenario found that a 6,507 AFY groundwater pumping reduction of 20% (3,683 AFY) in the WLPMA, 11% (2,261 AFY) in the ELPMA, and (113 AFY) in the Epworth Gravels Management Area would avoid undesirable results and thus achieve sustainability. Staff notes that implementation of a differential rampdown would require, with committee consultation, specific findings by your Board.

The PAC and TAC have provided extensive comments and recommendations that have been incorporated and addressed in the current version of the BOYS before your Board (Exhibits 17B and 17D, respectively). The accompanying Watermaster response reports contain considered responses to each of the PAC and TAC's recommendations (Exhibits 17C and 17E, respectively). The PAC provided four recommendations generally focused on interpretation of the Judgment and related to rampdown: when and how to initiate, Basin-wide versus Differential and use of rampdown as a last resort and 18 specific comments (Exhibit 17B). Watermaster incorporated these recommendations and comments into the current version of the BOYS providing clarifying language, updating text and providing a response report detailing how staff addressed these recommendations in the study and the source of the request for Differential Rampdown which was a request by the TAC to Watermaster (Exhibit 17C). The TAC on the other hand provided a recommendation report with ten recommendations and 76 specific comments related to: clarifications on model assumptions, effects of the Somis Fault model boundary conditions on in-lieu and rampdown simulations, conditions in the Epworth Gravels, potential effects of carryover and addressing the specific comments of TAC members (Exhibit 17D). Similarly, the current version of the BOYS incorporates these recommendations while the Watermaster response report details how they have

been incorporated and addressed in the study and the matrix has individual responses to each of the TACs specific comments (Exhibit 17E). In addition, part of these technical recommendations have been addressed by staff earlier in this Board letter.

SUMMARY

The Basin Optimization Yield Study is a technical document that evaluates the sustainability of current groundwater extraction rates, establishes the Basin Optimization Yield based on modeled projects, calculates Basin-wide rampdown and rampdown rate that would be needed in the absence of project implementation, and as requested by the TAC, a scenario for differential rampdown or localized restrictions, under Section 4.10.3 of the Judgment. The study, however, does not and is not intended to provide policy recommendations, but rather is the technical basis for which your Board, in consultation with the advisory committees, can develop informed policy for sustainable and adaptive management of the Basin.

CONCLUSION

Staff recommends that your Board 1) receive and file this report, and 2) provide direction to staff before this Item is brought back for adoption at the May 2026 Watermaster Board meeting.

This letter has been reviewed by Agency Counsel. If you have any questions, please call me at (805) 654-2954.

Sincerely,

Kudzai Farai Kaseke (PhD, PH, PMP, CSM)
Assistant Groundwater Manager

Attachment:

Exhibit 17A – Draft Las Posas Valley Basin Optimization Yield Study
Exhibit 17B – PAC Recommendation Report, February 5, 2026
Exhibit 17C – Watermaster Response Report to PAC, March 18, 2026
Exhibit 17D – TAC Recommendation Report, February 3, 2026
Exhibit 17E – Watermaster Response Report to TAC, March 18, 2026

Basin Optimization Yield Study

Las Posas Valley Basin

MARCH 2026

ACCESS LINK: https://fcgma.org/lpv_boys/

Prepared for:

FOX CANYON GROUNDWATER MANAGEMENT AGENCY
800 South Victoria Avenue
Ventura, California 93009-1610
Contact: Farai Kaseke, PhD, PH, PMP, CSM

Prepared by:

DUDEK
687 S. Coast Highway 101, Suite 110
Encinitas, California 92024

Jill Weinberger, Ph.D., P.G. #8940

TO: Las Posas Valley Watermaster

FROM: Las Posas Valley Watermaster Policy Advisory Committee

RE: Recommendation Report – DRAFT LAS POSAS VALLEY BASIN OPTIMIZATION YIELD STUDY

DATE: February 5, 2026

Recommendation:
See memo below for recommended changes/additions to the **DRAFT LAS POSAS VALLEY BASIN OPTIMIZATION YIELD STUDY** (December 2025).

Policy Rationale for Recommendation:
See memo below for rationale.

Summary of Facts in Support of Recommendation:
See memo below for complete summary of facts.

Tally of Committee Member Votes:

	YES	NO	ABSTAIN	ABSENT
Ian Prichard, Calleguas MWD	X			
John Menne, Zone MWC	X			
Arturo Aseo, Commercial	X			
Rob Grether, West LPV Large Ag	X			
David Schwabauer, East LPV Large Ag	X			
Patty Martinez, East LPV Small Ag				X
Richard Cavaletto, West LPV Small Ag	X			
Laurel Servin, East LPV MWC	X			
Steven Murata, West LPV MWC				X
Paul Chan, VCWWD 1 and 19				X

Report of Bases for Majority and Minority Committee Member Positions:

PAC Recommendations Report Regarding the Las Posas Valley Basin DRAFT Basin Optimization Yield Study – December 2025

On December 17, 2025, the Fox Canyon Groundwater Management Agency (FCGMA), acting as Watermaster for the Las Posas Valley Basin (LPVB), sent a Committee Consultation request to the LPVB Policy Advisory Committee (PAC) regarding the Draft Las Posas Valley Basin Optimization Yield Study (BOYS) prepared by Dudek, Inc.

Following review of the Draft BOYS, the PAC developed the recommendations in this report to ensure that the BOYS is revised and applied strictly in accordance with the Judgment and the Basin Optimization Plan. As established by the Judgment, the BOYS is an adaptive process for setting the Basin Optimization Yield, Operating Yield, and any Rampdown Rate; it is not intended to presume allocation-based Rampdown unless it is necessary to meet the Judgment's requirements.

The PAC identified policy-level issues in the Draft BOYS, including the introduction of concepts not authorized by the Judgment, the treatment of reasonably anticipated Basin Optimization Projects, the conflation of basinwide allocation adjustments with localized extraction controls, and the framing of Rampdown as a presumed outcome rather than a conditional management tool. Consistent with the Judgment's adaptive management framework, the PAC emphasizes that Basin Optimization Projects and other authorized measures must be fully considered and that Rampdown should be initiated only where necessary to ensure that the Operating Yield equals the Basin Optimization Yield by 2040.

Individual PAC member comments are compiled in the Master List appended to this Recommendations Report (to be provided to Watermaster staff in Excel format for ease of response). Those comments are keyed to specific sections of the Draft BOYS and provide detailed, section-specific input. The PAC's principal policy recommendations are summarized below.

Recommendation 1: Apply the BOYS Strictly as Defined in the Judgment; Initiate Rampdown Only Where Necessary to Achieve the 2040 Endpoint

Section 1.22 of the Judgment defines the Basin Optimization Yield Study (BOYS) as a five-year process used to set the Basin Optimization Yield, the Operating Yield, and any Rampdown Rate. The BOYS is one part of the Judgment's overall approach to achieving sustainable groundwater management by 2040.

Section 4.9.1.3 of the Judgment provides that Rampdown of the Operating Yield is to begin *if necessary* to ensure that the Operating Yield in Water Year 2040 equals both the Sustainable Yield and the Basin Optimization Yield. Sections 4.10.1.4 and 4.10.2 describe how Rampdown is to be calculated and revisited if Rampdown is required, but they do not eliminate the initial determination of whether Rampdown is needed at the time of the BOYS.

While the Judgment requires that the Operating Yield and Basin Optimization Yield align by 2040, it does not require Rampdown to begin automatically simply because the Basin Optimization Yield is lower than the current Operating Yield. Rampdown is required only where other management tools authorized by the Judgment are not sufficient to meet the 2040 requirement.

Based on current basin conditions and the status of reasonably anticipated Basin Optimization Projects, the available record does not show that starting Rampdown at this time is necessary under Section 4.9.1.3 of the Judgment.

Recommendation
Watermaster should revise and implement the BOYS in a manner that recognizes the 2040 alignment requirement, but clearly states that Rampdown should begin only if needed after considering other Judgment-authorized management tools. The BOYS should not assume Rampdown unless the need for it is clearly demonstrated.

Recommendation 2: Prioritize In-Lieu Water and Other Non-Allocational Tools Management Tools

Section 5 of the Judgment expressly authorizes the use of in-lieu water deliveries to reduce groundwater pumping while preserving water right allocations. Past basin conditions demonstrate that groundwater levels have recovered when pumping was reduced through in-lieu deliveries rather than through allocation reductions.

In-lieu water and similar non-allocational tools are efficient, lower-risk, and consistent with both the Basin Optimization Plan and the Judgment's structure, which favors operational and project-based solutions before allocation-based reductions.

Recommendation
Watermaster should prioritize implementation and use of in-lieu water deliveries and other non-allocational management tools authorized by the Judgment and should incorporate their reasonably anticipated effects into the BOYS before initiating allocation-based Rampdown.

Recommendation 3: Do Not Apply Differential Rampdown; Distinguish Allocation Changes from Extraction Controls

Under the Judgment, Rampdown is a single, basinwide mechanism that adjusts the Operating Yield and resulting Annual Allocations uniformly. Section 4.10 of the Judgment governs this process.

Section 4.10.3 of the Judgment does not authorize different Rampdown rates or allocation reductions by management area. Instead, it allows Watermaster, under specific conditions and following Committee Consultation, to impose localized restrictions on physical groundwater extraction in areas where Undesirable Results are occurring or are likely to occur.

These localized extraction restrictions regulate where groundwater may be pumped, not how much water a Water Right Holder is entitled to use. Allocation rights are preserved through the ability to pump outside the restricted area or to transfer allocation basis. Referring to these tools as "Differential Rampdown" conflates two separate mechanisms and implies a reallocation of water rights that the Judgment does not authorize.

Recommendation
Watermaster should remove or revise references to "Differential Rampdown" and clearly distinguish basinwide allocation-based Rampdown from localized extraction controls authorized

under Section 4.10.3 of the Judgment.

Recommendation 4: Base Rampdown Decisions on Demonstrated Need and Observed Basin Conditions

Actual groundwater extractions during the first two full Water Years following implementation of the Judgment have been well below both the Initial Operating Yield and the modeled Basin Optimization Yield. In this context, modeled exceedances of Minimum Thresholds should be treated as planning indicators, not as proof that Undesirable Results are occurring or imminent.

The Judgment's adaptive management approach requires that Rampdown decisions be based on demonstrated need, informed by observed basin conditions and sufficiently complete and reliable data, and revisited through future Basin Optimization Yield Studies as conditions evolve.

Recommendation
Watermaster should base any decision to initiate Rampdown on demonstrated necessity supported by observed basin conditions, rather than on speculative scenarios or model outputs alone, and should reassess the need for Rampdown through future BOYS updates consistent with the Judgment.

Conclusion

The PAC urges Watermaster to revise and implement the BOYS consistent with these recommendations so that it functions as intended under the Judgment: as an adaptive, forward-looking tool that prioritizes Basin Optimization Projects and authorized management measures, and applies Rampdown only where and when necessary to achieve sustainable groundwater management by 2040.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED
Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
CN-1 (commentor initials and comment number)	Commentor Name	General Technical, General Editorial, Technical, Editorial, etc.	Simple description of comment topic	Page number as it appears in document	Section number with as much detaill as possible, including paragraph and line whenever practicle	*Text from document in italics for identification*	Comment with as much detail as possible/necessary.
RC-3	RCavaletto	Misc	Rampdown period	3	1.3	*Rampdown was calculated over a 13-year period*	The Executive Summary says 14 years. Which is correct?
DS-1	DSchwabauer	General Editorial	clarification of purchase or lease of water	8	3.1.3	*The Arroyo Simi-Las Posas Water Acquisition project would involve the purchase or lease of recycled water from the City of Simi Valley to continue discharging the water from its shallow dewatering wells and/or the Simi Valley Water Quality Control Plant to the Arroyo Simi for downstream recharge to the Basin (FCGMA 2025a).*	This sentence needs further clarification as to the purchase or lease of water. Price will be extremely important. As well how long a purchase contract will/can last and/or how long a lease continue for.
DS-2	DSchwabauer	General Editorial	needed validation on Epworth Gravels	13	3.2.3.1	*In the Epworth Gravels Management Area, simulated groundwater elevations rose throughout the 47-year model time period (Figure 3.5).*	The beginning sentence about the Epworth Gravels is very misleading. It is well documented from historic pumping records that the Epworth Gravels water level has in general declined over the past 50 years, I say this as a pumper who has witnessed water level decline in our own wells in the Epworth.
DS-3	DSchwabauer	General Editorial	impacts unknown to date	13	3.2.3.1	*First, not all groundwater producers with wells in the Epworth Gravels Management Area received an allocation in the Judgement (Figure 3-4).*	The full impact of this allocation change is unknown; at this time there has not yet been a ruling by the court.
DS-4	DSchwabauer	General Editorial	validation of the In-lue project	13	3.2.3.1	*When wells were rested in the Epworth Gravels Management Area, the groundwater elevations recovered. Both the GSP and the First Periodic Evaluation anticipated that adaptive management would occur, through pumping reductions in Epworth Gravels Management Area wells, as necessary, to maintain groundwater elevations between the minimum threshold and measurable objective.*	From my perspective, these ending sentences clearly encapsulate the water usage patterns of the Epworth Gravels Management Area. The key takeaway from this resting of pumping of the Epworth Gravels clearly illustrates the benefit of the In-lue water purchase program. In my opinion, this demonstrates the high value of In-lue water usage to the basin, which benefits everyone in both the East and West Las Posas.
JM-2	JMenne	General Policy	Postpone Rampdown	15	3.3	*Discussed in entire Section 3.3.*	Given the Projects Scenario yielded adequate production (36,860 AF/Y) without undesirable effects, combined with the high amount of carryover developed during the last 2 water years, postponing rampdown until the next BOYS is drafted seems reasonable and would be beneficial to the Basin's users.
JM-1	JMenne	General Policy	Implement Calleguas In Lieu asap	26	3.1.3	*Discussed in entire Section 3.1.3*	Efficient, tested, low risk Project to increase Basin production. PAC should continue pressing to implement this Project, hopefully to start 2026Q3 when CMWD rates are lower.
RG-2	Rob Grether	General Editorial	Conflation of Allocation Reductions with Extraction Controls	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"Under this scenario, groundwater production was reduced by 3,683 AFY in the WLPMA, 4,112 AFY in the ELPMA, and 205 AFY in the Epworth Gravels Management Area."*	The Draft BOYS frequently conflates **reductions in groundwater extraction** with **reductions in Allocations**, creating confusion regarding the legal effect of Rampdown under the Judgment. Under the Judgment, Allocations represent the legal entitlement to use groundwater, while extraction controls regulate where and how groundwater may be physically pumped. Rampdown adjusts the Operating Yield and resulting Annual Allocations on a basinwide basis, whereas localized extraction restrictions under Judgment §4.10.3 regulate physical pumping locations without reducing Allocation rights. By describing Rampdown primarily in terms of "production" or "pumping" reductions by Management Area, the Draft BOYS obscures this distinction and risks implying that Rampdown is an operational control rather than an allocation adjustment. This framing is particularly confusing for Water Right Holders whose Allocations may be exercised through alternative extraction locations, transfers, or other Judgment-authorized mechanisms. **Proposed Revision:** Revise the Draft BOYS to clearly distinguish allocation adjustments from extraction controls, and to ensure that discussion of Rampdown consistently reflects its effect on Allocations rather than physical extraction locations.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED
Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
RG-3	Rob Grether	Editorial	Incorrect Definition and Calculation of Basin Optimization Yield and Rampdown	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown is the difference between the Initial Operating Yield and this Sustainable Yield."*	The Draft BOYS misdefines and misapplies the Judgment's terms for **Basin Optimization Yield** and **Rampdown**, resulting in incorrect Rampdown magnitudes and Rampdown Rates. Under the Judgment, Rampdown is calculated as the difference between the **then-effective Operating Yield** and the **Basin Optimization Yield**, not the difference between the Initial Operating Yield and the Sustainable Yield. Judgment §4.10.1.4 expressly provides that the annual Rampdown equals the deficit between the Operating Yield (e.g., 40,000 AFY) and the Basin Optimization Yield, divided into fifteen annual increments. The Draft BOYS states that the Basin Optimization Yield incorporating projects is 36,860 AFY; however, it does not consistently use this value for Rampdown calculations. Applying the Judgment's formula, the resulting Rampdown would be 3,140 AFY, with a Rampdown Rate of approximately 224 AFY. Instead, the Draft BOYS calculates Rampdown by reference to Sustainable Yield and introduces alternative "Basin Optimization Yield" sub-types, which are not provided for in the Judgment. The Judgment does not authorize Basin Optimization Yield formulations that exclude feasible projects. Introducing multiple BOY constructs creates confusion and leads to Rampdown calculations that are inconsistent with the Judgment. **Proposed Revision:** Revise the Draft BOYS to define and calculate Basin Optimization Yield and Rampdown strictly in accordance with Judgment §§1.21, 1.88, and 4.10.1.4, and remove alternative BOY formulations that do not incorporate reasonably anticipated projects.
RG-4	Rob Grether	General Policy	Failure to Treat Reasonably Anticipated Basin Optimization Projects as Incorporated into BOY	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The projects rely on other water agencies for implementation… coordination agreements between the agencies have not yet been drafted."*	The Draft BOYS understates the Basin Optimization Yield by treating Basin Optimization Projects as speculative rather than as **reasonably anticipated**, contrary to the Judgment's definition of Basin Optimization Yield. Judgment §1.21 defines Basin Optimization Yield as incorporating "reasonably anticipated enhanced yield" projected to be available by 2040 consistent with the Basin Optimization Plan. The Judgment does not require that Basin Optimization Projects be fully implemented, contractually finalized, or guaranteed at the time of the BOY Study to be incorporated into BOY. Instead, BOY is intended to reflect a forward-looking assessment based on reasonably anticipated conditions and adaptive management. By emphasizing uncertainty in project coordination and timing, the Draft BOYS implicitly discounts projects that have been selected through the Basin Optimization Plan and are actively being pursued. This framing shifts the BOY analysis away from optimization and toward speculative project failure, which is inconsistent with the Judgment's intent. **Proposed Revision:** Revise the Draft BOYS to clearly state that Basin Optimization Yield incorporates reasonably anticipated Basin Optimization Projects consistent with Judgment §1.21, and to avoid framing selected projects as speculative for purposes of BOY or Rampdown determinations.
RG-5	Rob Grether	General Editorial	Inclusion of "No Projects" Scenario Not Required by the Judgment	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"If the projects are not implemented, the BOY Study evaluated the Rampdown, and Rampdown rate for the Basin for two scenarios."*	The Judgment does not require the Basin Optimization Yield Study to analyze or develop a "no projects" scenario. The purpose of the BOYS is to determine the Basin Optimization Yield, Operating Yield, and any Rampdown consistent with the Judgment and the Basin Optimization Plan, based on reasonably anticipated conditions. While the analysis of a "no projects" scenario is appreciated as a technical exercise and provides interesting context, it is not relevant to the determination of the BOY or Rampdown under the Judgment. Inclusion of this analysis risks creating confusion by presenting speculative outcomes that are outside the scope of the BOYS and the Judgment's required findings. **Proposed Revision:** Clarify that the "no projects" analysis is informational only and not a basis for determining the Basin Optimization Yield or Rampdown, or remove the analysis from the BOYS to avoid confusion regarding its relevance under the Judgment.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED
Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
RG-6	Rob Grether	Policy	Actual Groundwater Extractions Do Not Support Initiation of Rampdown at This Time	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown Rate, which is the annual reduction in pumping required if the Rampdown is fully implemented by the fall of 2039…"*	Actual groundwater extractions during the first two full Water Years following implementation of the Judgment are well below both the Initial Operating Yield of 40,000 AFY and the modeled Basin Optimization Yield of 36,860 AFY. These observed conditions do not support initiation of Rampdown at this time. According to the Water Year 2024 Annual Report, total Basin-wide extractions were approximately**26,805 AF**, and according to the Draft Water Year 2025 Annual Report were approximately**31,122 AF**. Even under conservative assumptions that all WMIDs with incomplete reporting used their full allocations, adjusted extractions remain well below modeled yields: approximately**29,889** AF for WY 2024 and **32,738** AF for WY 2025. The Judgment expressly conditions Rampdown on necessity. Section 4.9.1.3 provides that Rampdown shall commence "if necessary" to ensure that the Operating Yield equals the Basin Optimization Yield and Sustainable Yield by 2040. The Judgment further provides for reassessment of Rampdown through the 2030 and 2035 Basin Optimization Yield Studies (§4.10.2), and includes an additional safeguard allowing interim increases to Rampdown only if required to prevent imminent Undesirable Results (§4.10.4). Given the substantial margin between observed extractions and both the Initial Operating Yield and Basin Optimization Yield, the Draft BOYS should acknowledge that current conditions do not demonstrate the necessity to initiate Rampdown at this time, consistent with the Judgment's adaptive management framework. **Proposed Revision:** Revise the Draft BOYS to explicitly consider recent extraction data and clarify that Rampdown is not presently necessary and may be reassessed in future BOY Studies pursuant to Sections 4.10.2 and 4.10.4
RG-7	Rob Grether	Editorial	Modeled Minimum Threshold Exceedances Are Not Equivalent to Undesirable Results	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"Groundwater Production at the Initial Operating Yield was determined to be unsustainable because modeled future groundwater elevations at several Key Wells… fell below the minimum threshold groundwater elevation…"*	The Draft BOYS treats modeled exceedances of Minimum Thresholds (MTs) as determinative of the need for Rampdown, without adequately distinguishing between**modeled threshold exceedances** and the occurrence of actual **Undesirable Results** as defined in the Judgment and SGMA. Minimum Thresholds are planning and monitoring tools used to evaluate trends and inform management decisions. They are not, by themselves, equivalent to Undesirable Results. The Judgment defines Undesirable Results as basin conditions that are significant and unreasonable, and it provides multiple management tools—adaptive management, Basin Optimization Projects, In Lieu Water, and localized extraction restrictions—to address emerging concerns before Rampdown becomes necessary. As demonstrated by actual extraction data for Water Years 2024 and 2025, Basin-wide pumping has been far below both the Initial Operating Yield and the modeled Basin Optimization Yield. In this context, reliance on conservative model projections alone, particularly where acknowledged model limitations exist, does not establish that Undesirable Results are occurring or are imminent. By equating modeled MT exceedances with the necessity for Rampdown, the Draft BOYS collapses an adaptive management framework into a precautionary enforcement mechanism that is not required by the Judgment. **Proposed Revision:** Revise the Draft BOYS to clearly distinguish modeled MT exceedances from actual Undesirable Results, and to clarify that Rampdown is triggered by demonstrated necessity based on observed conditions and Judgment-defined findings, not by model outputs alone

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED
Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
RG-8	Rob Grether	General Editorial	Overstatement of Linear Rampdown Requirement to Achieve 2040 Compliance	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown Rate… required if the Rampdown is fully implemented by the fall of 2039…"*	The Draft BOYS overstates the requirement for immediate and linear Rampdown to achieve compliance by 2040. The Judgment does contemplate a **linear calculation method** for Rampdown if Rampdown is necessary. Specifically, Judgment §4.10.1.4 provides that the amount of any required Rampdown shall be calculated by dividing the deficit between the then-effective Operating Yield and the Basin Optimization Yield into fifteen annual increments following the 2025 BOY Study. However, this provision establishes a**calculation framework**, not a mandate that Rampdown must begin immediately or proceed linearly in all circumstances. The Judgment expressly conditions Rampdown on necessity (§4.9.1.3), provides for reassessment through subsequent BOY Studies in 2030 and 2035 (§4.10.2), and allows for interim adjustments only where required to prevent imminent Undesirable Results (§4.10.4). Read together, these provisions reflect an adaptive management approach in which linear Rampdown is applied only when warranted by actual conditions and Judgment-defined findings. By back-solving linearly from the 2040 endpoint and presenting early Rampdown as a default pathway, the Draft BOYS risks implying an obligation that exceeds what the Judgment requires and may not reflect current basin conditions. **Proposed Revision:** Revise the Draft BOYS to clarify that while the Judgment provides a linear method for calculating Rampdown if necessary, the initiation, timing, and magnitude of Rampdown remain conditional and subject to demonstrated necessity and periodic reassessment pursuant to the Judgment
RG-1	Rob Grether	General Policy	Improper Introduction of "Differential Rampdown" Contrary to Judgment §4.10.3	Multiple, but Quoted Text from: - Executive Summary - v - 19	Various, but Quoted Text from: - Executive Summary - 3.4.2	*"In the second scenario, referred to as the Differential Rampdown Scenario, the Rampdown differed by management area."* *"although not specified in the Judgment, this BOY Study considers a Differential Rampdown Scenario…"*	The Draft Basin Optimization Yield Study introduces a "Differential Rampdown" concept that applies non-uniform reductions in groundwater production by Management Area. This approach is**not authorized by the Judgment** and misinterprets **Judgment §4.10.3**. Under the Judgment, **Rampdown is a single, basinwide mechanism** that adjusts the Operating Yield and Annual Allocations uniformly pursuant to Section 4.10. Section 4.10.3 does not authorize differential or Management Area–specific reductions in Allocations. Instead, it provides a**separate and limited authority** for Watermaster, following Committee Consultation and specific findings, to impose**localized restrictions on physical Extractions** from certain wells or areas where Undesirable Results are occurring or are likely to occur. Critically, §4.10.3 preserves Allocation rights by allowing affected Water Right Holders to extract their Annual Allocation outside the Restriction Area or to transfer Allocation Basis pursuant to Section 4.12. Localized extraction restrictions therefore regulate**where groundwater may be pumped**, not **how much water a Water Right Holder is entitled to use**. By framing localized extraction controls as a "Differential Rampdown," the Draft BOYS improperly conflates two distinct Judgment mechanisms and has the effect of converting site-specific extraction management into a de facto reallocation of groundwater rights, which the Judgment does not permit. **Proposed Revision:** Remove or revise all references to "Differential Rampdown" to clearly distinguish basinwide Rampdown of Allocations under Section 4.10 from localized restrictions on Extractions under Section 4.10.3, and to clarify that the Judgment does not authorize non-uniform Rampdown or differential allocation reductions by Management Area
JM-3	JMenne	General Policy	Communication to Stakeholders	N/A	N/A	*N/A*	PAC should consider ways to effectively communicate the study's findings and recommendations to educate/update the stakeholders of the LPV Water Basin performance, challenges, and what is being done by FCGMA, PAC and TAC to improve the sustainability and cost effective access to their water resource.
RC-4	RCavaletto	General Policy	Economic Considerations	NA	NA		This was disucssed in our last PAC mtg and I believe Ian or Rob maybe drafting a statement regarding the issue of economic impacts of the different scenarios. While this report may not be the appropriate place to do the analysis, it is essential that an economic anaylis be completed for the different scenarios so water users can anticipate the additional costs they may be facing in order to meet the objective of keeping the basin operating yield at 40,000 AFY.
RC-1	RCavaletto	Editorial	Number senarios evaluated.	v	Executive Summary	*The scenarios evaluated included. . . scenarios.*	number each of the scenarios to make it easer to follow.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED
Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
RC-2	RCavaletto	Misc	Rampdown rate	v	Executive Summary	*4th Paragraph.*	What happens if the projects can't be implemented for some extended time, say "5 years". Is the rampdown rate (8,000 ac/ft /9 years) still a valid approach? How long do the projects need to be active before 2039 (14 years?) to insure the 40,000 AFY Operating Yield will be valid in 2040?

LAS POSAS VALLEY WATERMASTER RESPONSE REPORT

Date: March 18, 2026

To: Las Posas Valley Watermaster Board of Directors

From: Kudzai Farai Kaseke, Assistant Groundwater Manager (FCGMA)

Re: Response Report to PAC Recommendation Report – Draft Las Posas Valley Basin Optimization Yield Study

The Las Posas Valley (LPV) Watermaster (Watermaster) requested consultation from the LPV Policy Advisory Committee (PAC) on the draft Basin Optimization Yield Study (BOY Study or BOYS). Watermaster's request was transmitted in a December 17, 2025, memorandum to PAC. Watermaster requested two previous TAC consultations regarding the BOY Study which guided preparation of the draft BOY Study:

- December 23, 2024, request for consultation on the BOY Study schedule (January 22, 2025, PAC verbal comments at Watermaster Board meeting)
- April 3, 2025, request for consultation on preferred modeling alternatives and impacts to schedule (May 15, 2025, PAC recommendation report)

The PAC discussed and developed its recommendation report at its January 15, 2026, and February 5, 2026, regular meetings. PAC's February 5, 2026 (received February 24, 2026), recommendation report included four recommendations. Each of these recommendations is listed below followed by Watermaster response. Watermaster appreciates PAC's review of the draft BOY Study and recommendations.

RECOMMENDATION 1: Apply the BOYS Strictly as Defined in the Judgment; Initiate Rampdown Only Where Necessary to Achieve the 2040 Endpoint

Section 1.22 of the Judgment defines the Basin Optimization Yield Study (BOYS) as a five-year process used to set the Basin Optimization Yield, the Operating Yield, and any Rampdown Rate. The BOYS is one part of the Judgment's overall approach to achieving sustainable groundwater management by 2040.

Section 4.9.1.3 of the Judgment provides that Rampdown of the Operating Yield is to begin if necessary to ensure that the Operating Yield in Water Year 2040 equals both the Sustainable Yield and the Basin Optimization Yield. Sections 4.10.1.4 and 4.10.2 describe how Rampdown is to be calculated and revisited if Rampdown is required, but they do not eliminate the initial determination of whether Rampdown is needed at the time of the BOYS.

While the Judgment requires that the Operating Yield and Basin Optimization Yield align by 2040, it does not require Rampdown to begin automatically simply because the Basin Optimization Yield is lower than the current Operating Yield. Rampdown is required only where other management tools authorized by the Judgment are not sufficient to meet the 2040 requirement.

Based on current basin conditions and the status of reasonably anticipated Basin Optimization Projects, the available record does not show that starting Rampdown at this time is necessary under Section 4.9.1.3 of the Judgment.

Recommendation
Watermaster should revise and implement the BOYS in a manner that recognizes the 2040 alignment requirement, but clearly states that Rampdown should begin only if needed after considering other Judgment-authorized management tools. The BOYS should not assume Rampdown unless the need for it is clearly demonstrated.

Response to Recommendation 1:
The BOY Study has been revised to clarify that numerical modeling forecasts that Rampdown is unnecessary if Basin Optimization Plan Project 2 (Purchase of Imported Water from CMWD for Basin Replenishment) is fully implemented as scheduled. However, if Project 2 is not fully implemented as scheduled, then Rampdown would be required so that the Operating Yield equals the sustainable yield by fall of 2039. Additionally, the BOY Study finds that if Project 5 (Arroyo Simi-Las Posas Water Acquisition) is not implemented and the City of Simi Valley reduces discharges to the Arroyo Simi, then Rampdown may be required. Ongoing monitoring of the Key Wells will confirm that measured groundwater elevations are consistent with forecasted groundwater elevations simulated by the numerical models to provide assurance that undesirable results will not occur after 2040.

RECOMMENDATION 2: Prioritize In-Lieu Water and Other Non-Allocational Tools Management Tools
Section 5 of the Judgment expressly authorizes the use of in-lieu water deliveries to reduce groundwater pumping while preserving water right allocations. Past basin conditions demonstrate that groundwater levels have recovered when pumping was reduced through in-lieu deliveries rather than through allocation reductions.

In-lieu water and similar non-allocational tools are efficient, lower-risk, and consistent with both the Basin Optimization Plan and the Judgment's structure, which favors operational and project- based solutions before allocation-based reductions.

Recommendation
Watermaster should prioritize implementation and use of in-lieu water deliveries and other non-allocational management tools authorized by the Judgment and should incorporate their reasonably anticipated effects into the BOYS before initiating allocation-based Rampdown.

Response to Recommendation 2:
The BOY Study Projects Scenario includes the projects selected for the Basin Optimization Plan that include sufficient information that the project benefits can be quantified for numerical modeling. These are Project 2 (Purchase of Imported Water from CMWD for Basin Replenishment) and Project 5 (Arroyo Simi-Las Posas Water Acquisition). Watermaster is working with CMWD on a fee structure for the purchase of imported water and once finalized will be working with the CMWD and the purveyors on the mechanism for the project. Additionally, Watermaster is working on development of the additional projects selected for the Basin Optimization Plan. These are Project 8 (Allocation Buyback and Reduction Program), Project 7 (In Lieu Deliveries to Northern East Las Posas Feasibility

Study), and Project 9 (Regional Desalter Feasibility Study). Watermaster anticipates that Project 8 will be included numerical modeling forecasts for the next BOY Study, which must be completed by February 1, 2030. Projects 7 and 9 are feasibility studies, the findings of which will inform whether these projects will be included in the 2030 BOY Study. Watermaster is currently soliciting proposals from qualified firms to conduct Project 7. At the same time, given that ELPMA lies completely within CMWD service area and that CMWD has a regional feasibility study similar to Project 9 which requires the same or similar stakeholders, Watermaster is working to collaborate with CMWD on this project. Such collaboration will avoid duplication of work and potentially result in some cost savings.

RECOMMENDATION 3: Do Not Apply Differential Rampdown; Distinguish Allocation Changes from Extraction Controls

Under the Judgment, Rampdown is a single, basin wide mechanism that adjusts the Operating Yield and resulting Annual Allocations uniformly. Section 4.10 of the Judgment governs this process.

Section 4.10.3 of the Judgment does not authorize different Rampdown rates or allocation reductions by management area. Instead, it allows Watermaster, under specific conditions and following Committee Consultation, to impose localized restrictions on physical groundwater extraction in areas where Undesirable Results are occurring or are likely to occur.

These localized extraction restrictions regulate where groundwater may be pumped, not how much water a Water Right Holder is entitled to use. Allocation rights are preserved through the ability to pump outside the restricted area or to transfer allocation basis. Referring to these tools as "Differential Rampdown" conflates two separate mechanisms and implies a reallocation of water rights that the Judgment does not authorize.

Recommendation

Watermaster should remove or revise references to "Differential Rampdown" and clearly distinguish basinwide allocation-based Rampdown from localized extraction controls authorized under Section 4.10.3 of the Judgment.

Response to Recommendation 3:

The Differential Rampdown Scenario was developed and modeled based on a specific Technical Advisory Committee (TAC) recommendation. The term "differential rampdown," as used in the BOYS, refers to localized restrictions on extractions that could be implemented pursuant to Section 4.10.3 of the Judgment to ensure sustainable management and maintain an Operating Yield as close to 40,000 AFY as possible. The scenarios, both Basin-wide and Differential, were modeled to provide both the Watermaster Board and Water Right Holders with an understanding of the reduction in groundwater production that would be necessary to reach sustainable conditions if the projects are not implemented. Decisions regarding Rampdown and localized restrictions, if any, are outside the scope of the BOY Study.

RECOMMENDATION 4: Base Rampdown Decisions on Demonstrated Need and Observed Basin Conditions

Actual groundwater extractions during the first two full Water Years following implementation of the Judgment have been well below both the Initial Operating Yield and the modeled Basin Optimization

Yield. In this context, modeled exceedances of Minimum Thresholds should be treated as planning indicators, not as proof that Undesirable Results are occurring or imminent.

The Judgment's adaptive management approach requires that Rampdown decisions be based on demonstrated need, informed by observed basin conditions and sufficiently complete and reliable data, and revisited through future Basin Optimization Yield Studies as conditions evolve.

Recommendation
Watermaster should base any decision to initiate Rampdown on demonstrated necessity supported by observed basin conditions, rather than on speculative scenarios or model outputs alone, and should reassess the need for Rampdown through future BOYS updates consistent with the Judgment.

Response to Recommendation 4:
Judgment Section 4.10 clearly states that the BOY Study will establish the Basin Optimization Yield and establish the need for Rampdown, and the Rampdown Rate for the next five years, if the Basin Optimization Yield is less than the initial Operating Yield of 40,000 acre-feet per year. The two numerical models were determined to be the best available tools to establish the Basin Optimization Yield. Watermaster notes that PAC "concurs with Watermaster and Dudek that the alternative providing for the use of the Estimation for the BOY [Basin Optimization Yield] Using the UWCD [United Water Conservation District] Periodic Evaluation Model Files to Run New Scenarios is the most favorable approach" (PAC May 15, 2025, recommendation report).

Watermaster agrees that groundwater elevations measured at Key Wells is the basis for determining if Undesirable Results are occurring in the Basin. PAC is correct that reported groundwater extractions over the first two water years following Judgment implementation have been less than the initial Operating Yield. However, groundwater elevations have been below the minimum thresholds at one or two Key Wells when measured in water years 2024 and 2025 indicating that Undesirable Results are occurring. These wells are in the West Las Posas Management Area of the Basin. In the northern portion of the East Las Posas Management Area of the Basin, groundwater elevations continue to exhibit a long-term non-sustainable decline.

The BOY Study text has been revised to provide clarity that ongoing monitoring of the Key Wells will confirm that measured groundwater elevations are consistent with forecasted groundwater elevations simulated by the numerical models to provide assurance that undesirable results will not occur after 2040. Watermaster will exercise adaptive management based on the findings of ongoing groundwater monitoring. Further, the Basin Optimization Yield will be re-evaluated in 2030 and 2035 BOY Studies, as required by the Judgment. The 2030 BOY Study must be completed by February 1, 2030.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
CN-1 (commentor initials and comment number)	Commentor Name	General Technical, General Editorial, Technical, Editorial, etc.	Simple description of comment topic	Page number as it appears in document	Section number with as much detaill as possible, including paragraph and line whenever practicle	*Text from document in italics for identification*	Comment with as much detail as possible/necessary.	
RC-3	RCavaletto	Misc	Rampdown period	3	1.3	*Rampdown was calculated over a 13-year period*	The Executive Summary says 14 years. Which is correct?	14 years is correct. Text revised.
DS-1	DSchwabauer	General Editorial	clarification of purchase or lease of water	8	3.1.3	*The Arroyo Simi-Las Posas Water Acquisition project would involve the purchase or lease of recycled water from the City of Simi Valley to continue discharging the water from its shallow dewatering wells and/or the Simi Valley Water Quality Control Plant to the Arroyo Simi for downstream recharge to the Basin (FCGMA 2025a).*	This sentence needs further clarification as to the purchase or lease of water. Price will be extremely important. As well how long a purchase contract will/can last and/or how long a lease continue for.	The Arroyo Simi-Las Posas Water Acquisition Project is discussed in detail in the Basin Optimization Plan (BOP). The BOYS purpose is to estimate the Basin Optimization Yield based on the projects selected in the BOP. Evaluation of the purchase/lease and costs are beyond the scope of the BOYS.
DS-2	DSchwabauer	General Editorial	needed validation on Epworth Gravels	13	3.2.3.1	*In the Epworth Gravels Management Area, simulated groundwater elevations rose throughout the 47-year model time period (Figure 3.5).*	The beginning sentence about the Epworth Gravels is very misleading. It is well documented from historic pumping records that the Epworth Gravels water level has in general declined over the past 50 years, I say this as a pumper who has witnessed water level decline in our own wells in the Epworth.	Commenter is correct regarding historical groundwater levels. The BOYS notes that the projected future groundwater levels simulated by the numerical model are not anticipated to reflect actual conditions in the Epworth Gravels. The text explains the two reasons why the model does not accurately predict future groundwater levels in the Epworth Gravels.
DS-3	DSchwabauer	General Editorial	impacts unknown to date	13	3.2.3.1	*First, not all groundwater producers with wells in the Epworth Gravels Management Area received an allocation in the Judgement (Figure 3-4).*	The full impact of this allocation change is unknown; at this time there has not yet been a ruling by the court.	Comment noted.
DS-4	DSchwabauer	General Editorial	validation of the In-lue project	13	3.2.3.1	*When wells were rested in the Epworth Gravels Management Area, the groundwater elevations recovered. Both the GSP and the First Periodic Evaluation anticipated that adaptive management would occur, through pumping reductions in Epworth Gravels Management Area wells, as necessary, to maintain groundwater elevations between the minimum threshold and measurable objective.*	From my perspective, these ending sentences clearly encapsulate the water usage patterns of the Epworth Gravels Management Area. The key takeaway from this resting of pumping of the Epworth Gravels clearly illustrates the benefit of the In-lue water purchase program. In my opinion, this demonstrates the high value of In-lue water usage to the basin, which benefits everyone in both the East and West Las Posas.	Comment noted.
JM-2	JMenne	General Policy	Postpone Rampdown	15	3.3	*Discussed in entire Section 3.3.*	Given the Projects Scenario yielded adequate production (36,860 AF/Y) without undesirable effects, combined with the high amount of carryover developed during the last 2 water years, postponing rampdown until the next BOYS is drafted seems reasonable and would be beneficial to the Basin's users.	Based on PAC and TAC recommendations, the BOYS has been revised to clarify that modeling indicates that rampdown is not needed if the two projects are implemented as proposed in the BOP.
JM-1	JMenne	General Policy	Implement Calleguas In Lieu asap	26	3.1.3	*Discussed in entire Section 3.1.3*	Efficient, tested, low risk Project to increase Basin production. PAC should continue pressing to implement this Project, hopefully to start 2026Q3 when CMWD rates are lower.	Watermaster agrees that the in-lieu project should be implemented in a timely manner.
RG-2	Rob Grether	General Editorial	Conflation of Allocation Reductions with Extraction Controls	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"Under this scenario, groundwater production was reduced by 3,683 AFY in the WLPMA, 4,112 AFY in the ELPMA, and 205 AFY in the Epworth Gravels Management Area."*	The Draft BOYS frequently conflates **reductions in groundwater extraction** with **reductions in Allocations**, creating confusion regarding the legal effect of Rampdown under the Judgment. Under the Judgment, Allocations represent the legal entitlement to use groundwater, while extraction controls regulate where and how groundwater may be physically pumped. Rampdown adjusts the Operating Yield and resulting Annual Allocations on a basinwide basis, whereas localized extraction restrictions under Judgment §4.10.3 regulate physical pumping locations without reducing Allocation rights. By describing Rampdown primarily in terms of "production" or "pumping" reductions by Management Area, the Draft BOYS obscures this distinction and risks implying that Rampdown is an operational control rather than an allocation adjustment. This framing is particularly confusing for Water Right Holders whose Allocations may be exercised through alternative extraction locations, transfers, or other Judgment- authorized mechanisms.	Text has been revised to clarify that the "Differential Rampdown" scenario was modeled for informational purposes relevant to Section 4.10.3 of the Judgment. The BOYS is a technical document, and as such, does not provide policy recommendations.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
							Proposed Revision: Revise the Draft BOYS to clearly distinguish allocation adjustments from extraction controls, and to ensure that discussion of Rampdown consistently reflects its effect on Allocations rather than physical extraction locations.	
RG-3	Rob Grether	Editorial	Incorrect Definition and Calculation of Basin Optimization Yield and Rampdown	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown is the difference between the Initial Operating Yield and this Sustainable Yield."*	The Draft BOYS misdefines and misapplies the Judgment's terms for **Basin Optimization Yield** and **Rampdown**, resulting in incorrect Rampdown magnitudes and Rampdown Rates. Under the Judgment, Rampdown is calculated as the difference between the**then-effective Operating Yield** and the **Basin Optimization Yield**, not the difference between the Initial Operating Yield and the Sustainable Yield. Judgment §4.10.1.4 expressly provides that the annual Rampdown equals the deficit between the Operating Yield (e.g., 40,000 AFY) and the Basin Optimization Yield, divided into fifteen annual increments. The Draft BOYS states that the Basin Optimization Yield incorporating projects is 36,860 AFY; however, it does not consistently use this value for Rampdown calculations. Applying the Judgment's formula, the resulting Rampdown would be 3,140 AFY, with a Rampdown Rate of approximately 224 AFY. Instead, the Draft BOYS calculates Rampdown by reference to Sustainable Yield and introduces alternative "Basin Optimization Yield" sub-types, which are not provided for in the Judgment. The Judgment does not authorize Basin Optimization Yield formulations that exclude feasible projects. Introducing multiple BOY constructs creates confusion and leads to Rampdown calculations that are inconsistent with the Judgment. **Proposed Revision:** Revise the Draft BOYS to define and calculate Basin Optimization Yield and Rampdown strictly in accordance with Judgment §§1.21, 1.88, and 4.10.1.4, and remove alternative BOY formulations that do not incorporate reasonably anticipated projects	The Executive Summary has been completely revised. Text discussing rampdown has also been revised in the body text. Definition of Basin Optimization Yield quote the Judgment definition in Section 1.21 and 1.88. Revisions have been made for clarification.
RG-4	Rob Grether	General Policy	Failure to Treat Reasonably Anticipated Basin Optimization Projects as Incorporated into BOY	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The projects rely on other water agencies for implementation… coordination agreements between the agencies have not yet been drafted."*	The Draft BOYS understates the Basin Optimization Yield by treating Basin Optimization Projects as speculative rather than as **reasonably anticipated**, contrary to the Judgment's definition of Basin Optimization Yield. Judgment §1.21 defines Basin Optimization Yield as incorporating "reasonably anticipated enhanced yield" projected to be available by 2040 consistent with the Basin Optimization Plan. The Judgment does not require that Basin Optimization Projects be fully implemented, contractually finalized, or guaranteed at the time of the BOY Study to be incorporated into BOY. Instead, BOY is intended to reflect a forward-looking assessment based on reasonably anticipated conditions and adaptive management. By emphasizing uncertainty in project coordination and timing, the Draft BOYS implicitly discounts projects that have been selected through the Basin Optimization Plan and are actively being pursued. This framing shifts the BOY analysis away from optimization and toward speculative project failure, which is inconsistent with the Judgment's intent.	The BOYS text has been revised, and the estimate of Basin Optimization Yield, to be based on the assumption that the two projects selected in the Basin Optimization Plan (BOP) will be implemented as presented in the BOP.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
							Proposed Revision: Revise the Draft BOYS to clearly state that Basin Optimization Yield incorporates reasonably anticipated Basin Optimization Projects consistent with Judgment §1.21, and to avoid framing selected projects as speculative for purposes of BOY or Rampdown determinations	
RG-5	Rob Grether	General Editorial	Inclusion of "No Projects" Scenario Not Required by the Judgment	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"If the projects are not implemented, the BOY Study evaluated the Rampdown, and Rampdown rate for the Basin for two scenarios."*	The Judgment does not require the Basin Optimization Yield Study to analyze or develop a "no projects" scenario. The purpose of the BOYS is to determine the Basin Optimization Yield, Operating Yield, and any Rampdown consistent with the Judgment and the Basin Optimization Plan, based on reasonably anticipated conditions. While the analysis of a "no projects" scenario is appreciated as a technical exercise and provides interesting context, it is not relevant to the determination of the BOY or Rampdown under the Judgment. Inclusion of this analysis risks creating confusion by presenting speculative outcomes that are outside the scope of the BOYS and the Judgment's required findings. **Proposed Revision:** Clarify that the "no projects" analysis is informational only and not a basis for determining the Basin Optimization Yield or Rampdown, or remove the analysis from the BOYS to avoid confusion regarding its relevance under the Judgment.	Text has been revised throughout to state that if the projects are fully implemented as scheduled, numerical modeling forecasts that Rampdown is unnecessary to maintain a Basin Optimization Yield of 40,000 AFY. Text has been revised in Section 5, Rampdown Rate, that "It should be noted again that the Rampdown calculations in this initial BOY Study, as shown in Table 5-1, are provided for informational purposes for consideration by the Watermaster Board of Directors should the projects not be implemented in a timely manner."
RG-6	Rob Grether	Policy	Actual Groundwater Extractions Do Not Support Initiation of Rampdown at This Time	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown Rate, which is the annual reduction in pumping required if the Rampdown is fully implemented by the fall of 2039…"*	Actual groundwater extractions during the first two full Water Years following implementation of the Judgment are well below both the Initial Operating Yield of 40,000 AFY and the modeled Basin Optimization Yield of 36,860 AFY. These observed conditions do not support initiation of Rampdown at this time. According to the Water Year 2024 Annual Report, total Basin-wide extractions were approximately**26,805 AF**, and according to the Draft Water Year 2025 Annual Report were approximately**31,122 AF**. Even under conservative assumptions that all WMIDs with incomplete reporting used their full allocations, adjusted extractions remain well below modeled yields: approximately**29,889** AF for WY 2024 and **32,738** AF for WY 2025. The Judgment expressly conditions Rampdown on necessity. Section 4.9.1.3 provides that Rampdown shall commence "if necessary" to ensure that the Operating Yield equals the Basin Optimization Yield and Sustainable Yield by 2040. The Judgment further provides for reassessment of Rampdown through the 2030 and 2035 Basin Optimization Yield Studies (§4.10.2), and includes an additional safeguard allowing interim increases to Rampdown only if required to prevent imminent Undesirable Results (§4.10.4). Given the substantial margin between observed extractions and both the Initial Operating Yield and Basin Optimization Yield, the Draft BOYS should acknowledge that current conditions do not demonstrate the necessity to initiate Rampdown at this time, consistent with the Judgment's adaptive management framework. **Proposed Revision:** Revise the Draft BOYS to explicitly consider recent extraction data and clarify that Rampdown is not presently necessary and may be reassessed in future BOY Studies pursuant to Sections 4.10.2 and 4.10.4.	Watermaster agrees that there is uncertainty regarding the amount and distribution of extractions in the Basin. When the numerical groundwater modeling was conducted for the BOYS, there was only a single water year of reported extractions available. The Judgment allocations were distributed based on the methodology discussed in section 3.2.2.1. TAC concurred with this methodology. Text has also been revised to identify a further unknown regarding Carryover of unused allocation. Watermaster also agrees with commentor's identification of Basin conditions will drive consideration of the need for rampdown. Text has been revised to clarify that ongoing monitoring of Key Wells will confirm that measured groundwater elevations are consistent with forecasted groundwater elevations simulated by the numerical models and that the Basin Optimization Yield must be re-evaluated in 2030 and 2035, and could be re-evaluated earlier, if necessary.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
RG-7	Rob Grether	Editorial	Modeled Minimum Threshold Exceedances Are Not Equivalent to Undesirable Results	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"Groundwater Production at the Initial Operating Yield was determined to be unsustainable because modeled future groundwater elevations at several Key Wells… fell below the minimum threshold groundwater elevation…"*	The Draft BOYS treats modeled exceedances of Minimum Thresholds (MTs) as determinative of the need for Rampdown, without adequately distinguishing between**modeled threshold exceedances** and the occurrence of actual **Undesirable Results** as defined in the Judgment and SGMA. Minimum Thresholds are planning and monitoring tools used to evaluate trends and inform management decisions. They are not, by themselves, equivalent to Undesirable Results. The Judgment defines Undesirable Results as basin conditions that are significant and unreasonable, and it provides multiple management tools—adaptive management, Basin Optimization Projects, In Lieu Water, and localized extraction restrictions—to address emerging concerns before Rampdown becomes necessary. As demonstrated by actual extraction data for Water Years 2024 and 2025, Basin-wide pumping has been far below both the Initial Operating Yield and the modeled Basin Optimization Yield. In this context, reliance on conservative model projections alone, particularly where acknowledged model limitations exist, does not establish that Undesirable Results are occurring or are imminent. By equating modeled MT exceedances with the necessity for Rampdown, the Draft BOYS collapses an adaptive management framework into a precautionary enforcement mechanism that is not required by the Judgment. **Proposed Revision:** Revise the Draft BOYS to clearly distinguish modeled MT exceedances from actual Undesirable Results, and to clarify that Rampdown is triggered by demonstrated necessity based on observed conditions and Judgment-defined findings, not by model outputs alone	California Code of Regulations, Title 23, Division 2, Chapter 1.5, Subchapter 2, defines minimum threshold as a numeric value for each sustainability indicator used to define undesirable results. The Groundwater Sustainability Plan for the Basin established the minimum thresholds that define when undesirable results are occurring in the Basin.
RG-8	Rob Grether	General Editorial	Overstatement of Linear Rampdown Requirement to Achieve 2040 Compliance	Multiple, but Quoted Text from: - Executive Summary - v	Various, but Quoted Text from: - Executive Summary	*"The Rampdown Rate… required if the Rampdown is fully implemented by the fall of 2039…"*	The Draft BOYS overstates the requirement for immediate and linear Rampdown to achieve compliance by 2040. The Judgment does contemplate a **linear calculation method** for Rampdown if Rampdown is necessary. Specifically, Judgment §4.10.1.4 provides that the amount of any required Rampdown shall be calculated by dividing the deficit between the then-effective Operating Yield and the Basin Optimization Yield into fifteen annual increments following the 2025 BOY Study. However, this provision establishes a**calculation framework**, not a mandate that Rampdown must begin immediately or proceed linearly in all circumstances. The Judgment expressly conditions Rampdown on necessity (§4.9.1.3), provides for reassessment through subsequent BOY Studies in 2030 and 2035 (§4.10.2), and allows for interim adjustments only where required to prevent imminent Undesirable Results (§4.10.4). Read together, these provisions reflect an adaptive management approach in which linear Rampdown is applied only when warranted by actual conditions and Judgment-defined findings. By back-solving linearly from the 2040 endpoint and presenting early Rampdown as a default pathway, the Draft BOYS risks implying an obligation that exceeds what the Judgment requires and may not reflect current basin conditions.	Text has been revised throughout to state that if the projects are fully implemented as scheduled, numerical modeling forecasts that Rampdown is unnecessary to maintain a Basin Optimization Yield of 40,000 AFY. Additionally, text has been revised to clarify that ongoing monitoring of Key Wells will confirm that measured groundwater elevations are consistent with forecasted groundwater elevations simulated by the numerical models and that the Basin Optimization Yield must be re-evaluated in 2030 and 2035, and could be re-evaluated earlier, if necessary.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
							Proposed Revision: Revise the Draft BOYS to clarify that while the Judgment provides a linear method for calculating Rampdown if necessary, the initiation, timing, and magnitude of Rampdown remain conditional and subject to demonstrated necessity and periodic reassessment pursuant to the Judgment	
RG-1	Rob Grether	General Policy	Improper Introduction of "Differential Rampdown" Contrary to Judgment §4.10.3	Multiple, but Quoted Text from: - Executive Summary - v - 19	Various, but Quoted Text from: - Executive Summary - 3.4.2	*"In the second scenario, referred to as the Differential Rampdown Scenario, the Rampdown differed by management area."* *"although not specified in the Judgment, this BOY Study considers a Differential Rampdown Scenario…"*	The Draft Basin Optimization Yield Study introduces a "Differential Rampdown" concept that applies non- uniform reductions in groundwater production by Management Area. This approach is**not authorized by the Judgment** and misinterprets **Judgment §4.10.3**. Under the Judgment, **Rampdown is a single, basinwide mechanism** that adjusts the Operating Yield and Annual Allocations uniformly pursuant to Section 4.10. Section 4.10.3 does not authorize differential or Management Area–specific reductions in Allocations. Instead, it provides a **separate and limited** **authority** for Watermaster, following Committee Consultation and specific findings, to impose **localized restrictions on physical Extractions** from certain wells or areas where Undesirable Results are occurring or are likely to occur. Critically, §4.10.3 preserves Allocation rights by allowing affected Water Right Holders to extract their Annual Allocation outside the Restriction Area or to transfer Allocation Basis pursuant to Section 4.12. Localized extraction restrictions therefore regulate **where groundwater may be pumped**, not **how much water a Water Right Holder is entitled to use**. By framing localized extraction controls as a "Differential Rampdown," the Draft BOYS improperly conflates two distinct Judgment mechanisms and has the effect of converting site-specific extraction management into a de facto reallocation of groundwater rights, which the Judgment does not permit. **Proposed Revision:** Remove or revise all references to "Differential Rampdown" to clearly distinguish basinwide Rampdown of Allocations under Section 4.10 from localized restrictions on Extractions under Section 4.10.3, and to clarify that the Judgment does not authorize non-uniform Rampdown or differential allocation reductions by Management Area	Please see response to RG-2.
JM-3	JMenne	General Policy	Communication to Stakeholders	N/A	N/A	*N/A*	PAC should consider ways to effectively communicate the study's findings and recommendations to educate/update the stakeholders of the LPV Water Basin performance, challenges, and what is being done by FCGMA, PAC and TAC to improve the sustainability and cost effective access to their water resource.	Comment noted.
RC-4	RCavaletto	General Policy	Economic Considerations	NA	NA		This was disucssed in our last PAC mtg and I believe Ian or Rob maybe drafting a statement regarding the issue of economic impacts of the different scenarios. While this report may not be the appropriate place to do the analysis, it is essential that an economic anaylis be completed for the different scenarios so water users can anticipate the additional costs they may be facing in order to meet the objective of keeping the basin operating yield at 40,000 AFY.	Comment noted.
RC-1	RCavaletto	Editorial	Number senarios evaluated.	v	Executive Summary	*The scenarios evaluated included. . . scenarios.*	number each of the scenarios to make it easer to follow.	Text has been extensively rewritten for clarity rendering the need for scenario numbering unnecessary.

Specific Comments from the Las Posas Valley Basin Policy Advisory Committee (PAC) - SORTED Draft Las Posas Valley Basin Optimization Yield Study (BOYS) - December 2025

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment	Watermaster Response
RC-2	RCavaletto	Misc	Rampdown rate	v	Executive Summary	*4th Paragraph.*	What happens if the projects can't be implemented for some extended time, say "5 years". Is the rampdown rate (8,000 ac/ft /9 years) still a valid approach? How long do the projects need to be active before 2039 (14 years?) to insure the 40,000 AFY Operating Yield will be valid in 2040?	The BOYS is a technical document to provide the Watermaster Board with the technical basis for consideration of policy including consideration of implementation of rampdown. The modeling scenarios did not evaluate how long the projects need to be active before 2039 to provide assurance of a 40,000 AFY Operating Yield in 2040. However, ongoing groundwater monitoring at the Key Wells will be compared with the projected groundwater elevations simulated by the numerical model and be used to evaluate whether undesirable results are occurring and the need for rampdown.

LAS POSAS VALLEY TECHNICAL ADVISORY COMMITTEE

February 3, 2026

RECOMMENDATION REPORT

To: Las Posas Valley Watermaster

From: Las Posas Valley Watermaster Technical Advisory Committee, prepared by Chad Taylor, Administrator and Chair

Re: Recommendation Report – Las Posas Valley Basin, Draft Basin Optimization Yield Study Report

The Las Posas Valley Watermaster Technical Advisory Committee (TAC) provides this Recommendation Report regarding the draft Basin Optimization Yield Study in response to a committee consultation request transmitted to the TAC on December 17, 2025 by Las Posas Valley Basin Watermaster (Watermaster) staff.

BACKGROUND

The Las Posas Valley Adjudication judgment requires preparation of a Basin Optimization Yield (BOY) Study to evaluate Basin Optimization Yield, set the Operating Yield, and calculate the pumping rampdown to achieve sustainable groundwater management by 2040. A draft of the Las Posas Valley Basin Optimization Yield Study was provided to the TAC for review. This followed previous TAC review of preliminary model scenario results for the simulations included in the BOY Study in the summer of 2025. TAC prepared and submitted a Recommendation Report presenting comments and recommendations on the preliminary model scenario results on September 16, 2025. In preparation of the draft BOY Study, the Watermaster considered and incorporated comments and recommendations the TAC provided after reviewing the preliminary model scenario results.

The draft BOY Study follows coordination and consultation between the Watermaster, Dudek, and the TAC regarding the methods for assessing basin yield and initial results of those assessments. The Watermaster requested TAC recommendations or comments on the draft and the TAC discussed and reviewed the draft BOY Study in meetings on January 6 and 20, 2026. TAC comments and recommendations following review of the draft BOY Study are summarized in this Recommendation Report. Detailed TAC comments and editorial suggestions are also attached in tabular format organized by TAC member, comment type and topic, and draft BOY Study page and section to provide additional information and assist the Watermaster in tracking and responding to comments.

The draft BOY Study represents a significant effort on the part of the Watermaster and their groundwater consultant, Dudek. The TAC appreciates the considerate approach both parties have taken in analyzing optimized yield in the Las Posas Valley Basin (LPVB) and presenting a thorough report summarizing the work.

The TAC reviewed this Recommendation Report and voted to approve it in a regular meeting on February 3, 2026.

TAC RECOMMENDATIONS

1. RECOMMENDATION 1: CLARIFY HOW THE ARROYO SIMI-LAS POSAS WATER ACQUISITION PROJECT WAS SIMULATED IN THE MODEL SCENARIOS

It is unclear how the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) was included in the various simulations. Please clarify in text and add a simple table that lists the amount of surface water that was simulated to enter the LPVB for each simulation. This is particularly important for the rampdown scenarios, which are described as being no-project scenarios. If they are no-project scenarios, please clarify that the current flows in the Arroyo Simi-Las Posas that Basin Optimization Plan Project 5 are intended to maintain were not included.

1.1 Recommendations:

Clarify and document how surface water flows were adjusted between scenarios to include or exclude the Arroyo Simi-Las Posas water acquisition project.

1.2 Technical Rationale for Recommendation:

The Arroyo Simi-Las Posas water acquisition project is designed to maintain recent historical surface water flow into the LPVB. If the no-project rampdown scenarios do not include the contribution to the water budget from the project, that should be clearly stated in the BOY Study.

1.3 Summary of Facts in Support of Recommendation:

- The Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) has been described as a means of maintaining current and recent historical surface water flow into the LPVB.
- If maintenance of this surface water inflow is dependent on the project, then it should not be included in the no-project rampdown scenario simulations.

2. RECOMMENDATION 2: PRESENT BASIN OPTIMIZATION YIELD AND RAMPDOWN CONSISTENT WITH JUDGEMENT

The Judgment defines Basin Optimization Yield as the estimated yield projected to be available to achieve sustainable groundwater management by 2040 and rampdown as the deficit between the effective Operating Yield and the Basin Optimization Yield. The draft BOY Study references these definitions and identifies the Basin Optimization Yield as a

groundwater production rate of 36,860 acre-feet per year (AFY), which includes implementation of Basin Optimization Projects and maintains sustainable groundwater conditions. However, the draft BOY Study then uses a different annual production rate to identify and define rampdown and rampdown rate. According to the Judgment, rampdown would therefore be 40,000 AFY minus 36,860 AFY, which is 3,140 AFY (current Operating Yield is 40,000 AFY and BOY Study calculated Basin Optimization Yield is 36,860 AFY).

This may point to a conflict within the Judgement. The reduction in pumping below the Operational Yield identified in the draft BOY Study as the Basin Optimization Yield applies only to those LPVB groundwater users who would receive project in lieu water deliveries. However, the Judgment requires rampdown to be applied to all groundwater users in the LPVB. The Judgment does not appear to contemplate a condition in which a no-project scenario results in rampdown, which is the context in which rampdown has been discussed and estimated in the draft BOY Study.

2.1 Additionally the Judgment requires that the Basin Optimization Yield be used by the Watermaster to allocate pumping to pumpers. If the Basin Optimization Yield identified in the BOY Study is used for this purpose, pumpers will not receive the correct annual allocations; it will be reduced by the volume of in lieu water delivered to the projects assessed in the BOY Study. Because the in lieu projects in the BOY Study offset some groundwater use, the volume of water delivered for in lieu use should be included in the Basin Optimization Yield. Recommendations:

- Clarify how the Basin Optimization Yield with the in lieu projects will be used for future allocation determinations, and rampdown (which is assumed to be zero so long as projects are implemented).
- Explore and characterize how rampdown is being presented in the BOY Study in contrast to the definitions in the Judgment.
- Provide additional explanation for the context of including a no-project scenario and associated rampdown in the BOY Study. To avoid confusion, this explanation should differentiate between pumping reductions in the BOY Study and rampdown in the Judgment. This explanation should also inform the reader that uniform and differential pumping reductions are both presented for informational purposes only.

2.2 Technical Rationale for Recommendation:

The Judgment and the draft BOY Study appear to address rampdown differently, as discussed above. The BOY Study should accurately describe these differences and discuss how the Basin Optimization Yield will be used to determine future allocations. Without this clarification, and in strict compliance with the Judgment, there may be confusion regarding the basis for allocations. The no-project pumping reduction in the BOY Study should also be modified so that its difference from rampdown as defined and described in the Judgment.

2.3 Summary of Facts in Support of Recommendation:

- The Judgment includes the following definitions:
    - Basin Optimization Yield is the estimated yield projected to be available to achieve sustainable groundwater management by 2040.

    - Rampdown is the deficit between the effective Operating Yield and the Basin Optimization Yield.
- The draft BOY Study references these definitions, however:
    - The Basin Optimization Yield is identified a groundwater production rate of 36,860 AFY, implying that this is the value that would be used to determine future allocations.
    - No-project pumping reductions are identified using an approach that differs from the definition in the Judgment.

3. RECOMMENDATION 3: CONSIDER ADDRESSING THE EFFECTS OF THE SOMIS FAULT MODEL BOUNDARY CONDITION ON IN LIEU AND RAMPDOWN SIMULATIONS

As noted in the draft BOY Study and raised by the TAC in previous recommendation reports, the Coastal Plain Model includes a boundary condition on the Somis fault that is inconsistent with the agreed-upon hydrogeologic conceptual model of the LPVB, the boundary condition in the East Las Posas Model, and the version of the Ventura Regional Groundwater Flow Model (VRGFM) that was used to develop the LPVB GSP. While the draft BOY Study indicates that the simulated in lieu and rampdown scenarios for the WLPMA are sustainable despite this issue with the Coastal Plain Model, it is possible that the volumes of water identified for in lieu delivery and reduced pumping in the projects and rampdown scenarios, respectively, exceed what would actually be required to achieve sustainable groundwater conditions in the WLPMA.

3.1 Recommendations:

Consider estimating the volumetric effect the inconsistent boundary condition has on the project and rampdown scenario simulations. This could allow the in lieu and rampdown volumes to be refined downward, reducing costs and impacts to WLPMA groundwater users.

3.2 Technical Rationale for Recommendation:

The Coastal Plain model boundary condition at the Somis fault is inconsistent with the agreed upon hydrogeologic conceptualization and observed conditions in the eastern portion of the WLMPA. As a result the Coastal Plain model simulates flow leaving the WLPMA when groundwater elevations in the eastern part of the management area rise in response to the simulated project and rampdown changes to the local water budget. An analysis of the volume of water that leaves the management area could show how much the in lieu project and rampdown scenarios overestimate pumping reductions, thereby allowing for reduced in lieu water delivery and rampdown requirements.

3.3 Summary of Facts in Support of Recommendation:

- The Coastal Plain model boundary condition at the Somis fault is not consistent with the agreed-upon hydrogeologic conceptual model.

- Increased groundwater elevations resulting from reduced pumping in project and rampdown scenarios causes the model to simulate groundwater flow out of the WLMPA across the Somis fault.
- In practice, the groundwater that leaves the WLPMA in the model would remain in the management area increasing water levels above what is simulated in the scenarios presented in the draft BOY Study.
- This outflow implies that the in lieu delivery and rampdown pumping reduction volumes identified in the draft BOY Study could be reduced.

4. RECOMMENDATION 4: CLARIFY EXISTING AND PROJECTED CONDITIONS IN THE EPWORTH GRAVELS MANAGEMENT AREA

The information presented for the Epworth Gravels Management Area (EGMA) should be expanded to explain several factors. These include the presence of groundwater producers without allocations in the Judgment, the effects of recent pumping patterns on model simulations, and the need for rampdown in the management area if the Basin Optimization Plan projects are not implemented.

4.1 Recommendations:

- In section 3.2.3.1:
  - Provide more information and quantify or estimate how much pumping in the EGMA is not accounted for in the distribution of allocations in the Judgment.
  - Provide similar information for the other management areas or note the absence of pumpers without allocations in those management areas.
- Provide additional information regarding the effects of using water year 2024 pumping in the EGMA for the 47-year model period and how this will be accounted for in the Operating Yield for the management area and LPVB.
- Explain why the difference between the estimated sustainable yield and rampdown volumes were so large for the EGMA.
- Explain why EGMA pumping is reduced in the rampdown scenarios when the baseline production rate for the management area is already lower than the sustainable yield, as indicated on page 13 of the draft BOY Study.
- Provide additional discussion of the differential rampdown scenario results in the EGMA, specifically addressing continuing declines in groundwater levels shown on Figure 3-13.

4.2 Technical Rationale for Recommendation:

Technical rationale for each recommendation above is included in the context of the recommendation.

4.3 Summary of Facts in Support of Recommendation:

A summary of facts for this recommendation is not applicable.

5. RECOMMENDATION 5: CLARIFY HOW PUMPING AND WATER BUDGET CHANGES WERE APPLIED IN MODEL SCENARIOS, SPECIFICALLY WITH RESPECT TO TEMPORAL VARIABILITY IN PUMPING VOLUME AND DISTRIBUTION

It is not clear from the descriptions of model scenarios if pumping was held constant for every year of the simulation period for each scenario, or if pumping volume and/or distribution were varied during the simulation period.

While this comment and recommendation applies to all model simulations, it is particularly important for the rampdown scenarios. It is unclear whether pumping at the fully reduced rate was used for the entire rampdown simulation period or if pumping was reduced incrementally each year. If it is the former, the TAC questions whether rampdown will be effective in achieving sustainable groundwater conditions by 2040. As presented in the BOY Study, the model scenarios indicate that over the 47-year model period the annual groundwater production volumes pumped in the rampdown scenarios will achieve sustainability. However, the BOY Study does not appear to assess how long after reaching the rampdown pumping rate it will take for water levels to rise to the thresholds identified as sustainable. Prolonged pumping at rates in excess of the rampdown rate may result in water levels below the minimum thresholds in representative monitoring wells and it is not clear that one year of pumping at the rampdown rate at the end of the 14-year rampdown period will be sufficient to facilitate water level recovery.

5.1 Recommendations:

- Clarify how pumping and other water budget changes were applied in model scenarios, especially as it relates to rampdown rate implementation over time during the model period.
- Assuming the rampdown was assumed to have occurred before the start of each scenario and pumping during the entire model period was equal to the rampdown rate for the scenario, explain how long water level recovery to sustainable conditions may take after rampdown is complete.

5.2 Technical Rationale for Recommendation:

The BOY Study presents rampdown scenario model results that appear to have assumed pumping over the entire 47-year model period at the reduced rampdown rate that will only be achieved after a period of progressive pumping reduction according to a rampdown rate schedule. These simulations do not appear to show how long it will take water levels in the LPVB to respond once rampdown is completed and as defined in the Judgment and BOY Study that would not occur until 2040.

5.3 Summary of Facts in Support of Recommendation:

- Modeling over a long period at a reduced pumping rate will show higher water levels than can be achieved by prolonged pumping at higher rates.
- The 14-year rampdown period includes linear reduction in groundwater pumping every year.

- Rampdown model scenarios appear to have assumed pumping would be constant every year during the 47-year model period.
- Water levels are likely to take time to rise once rampdown is complete.

6. RECOMMENDATION 6: CLEARLY IDENTIFY ASSUMPTIONS ASSOCIATED WITH MODELING AND OTHER ANALYSES IN THE BOY STUDY

The TAC review identified some unstated assumptions in the modeling approach that should be included in the BOY Study. These include the assumption that modeled hydrology from the beginning of water year 2023 and current is consistent with actual conditions and that water in storage credited to Calleguas Municipal Water District will remain in storage. There may be other assumptions that are implicit in the modeling and other analyses in the BOY Study and these should be clearly identified and discussed in a dedicated section of the report.

6.1 Recommendations:

Clearly describe and explain the implications of assumptions in the modeling and other analyses in the BOY Study, including but not limited to the following:

- The difference between modeled and actual hydrology for the period from beginning of water year 2023 (October 2022) through the end of water year 2025 (September 2025) and briefly describe (qualitatively) the impact on interpretation of model results.
- The potential effects of recovery of water stored by Calleguas Municipal Water District on water levels, water budgets, and sustainable groundwater conditions.

6.2 Technical Rationale for Recommendation:

It is important for reports that include complex analysis to include documentation and discussion of the assumptions that were used and the potential implications of the assumptions on the outcome of the analyses.

6.3 Summary of Facts in Support of Recommendation:

A summary of facts for this recommendation is not applicable.

7. RECOMMENDATION 7: DISCUSS THE POTENTIAL EFFECTS OF CARRYOVER WATER ON SUSTAINABLE MANAGEMENT OF THE BASIN

The methodology used to distribute pumping in the baseline and other model scenarios assumed that pumping was constant every year and that all active wells produced the same volume of groundwater every year. While this approach preserves the water balance and allows the model to show how hydrologic variability affects groundwater conditions, it does not allow for assessment of the impacts of highly variable changes in groundwater pumping dependent on those same hydrologic conditions. Recent groundwater use in the LPVB has been below the current Operational Yield of 40,000 AFY, which indicates that some water rights holders have been accumulating carryover water, which is common during wet years.

Subsequent use of carryover water in dry years has the potential to effect groundwater sustainability and should be discussed.

7.1 Recommendations:
Discuss the potential effects of carryover water on sustainable management in the LPVB in light of the scenarios simulated for the BOY Study.

7.2 Technical Rationale for Recommendation:
Carryover is allowed by the Judgment recent historical pumping records show that some water rights holders have not used their allocations. Therefore some water rights holders are likely already accumulating carryover water that could lead to single-year groundwater production in excess of the Operational Yield, which may impact groundwater sustainability.

7.3 Summary of Facts in Support of Recommendation:

- Recent water use records show total pumping in the LPVB has been less than the Operational Yield.
- Some water rights holders have therefore been accumulating carryover water.
- Significant pumping in excess of the Operational Yield in a single year could occur if multiple parties elected to recover all their carryover water simultaneously.
- Pumping in excess of the Operational Yield has the potential to impact groundwater sustainability.

8. RECOMMENDATION 8: DOCUMENT AND DISCUSS UNCERTAINTIES IN THE MODEL RESULTS AS THEY RELATE TO THE FINDINGS OF THE BOY STUDY

Uncertainty in model results is presented alongside some values in section 2.1 of the draft BOY Study but then not explored further when describing the project scenario simulations, Basin Optimization Yield, or rampdown scenarios. Adding discussion of uncertainty and contextualizing quantified uncertainty would help readers understand the confidence that should be placed on the projections for LPVB management based on model simulations.

8.1 Recommendations:
Show quantitative estimates of uncertainties for all model simulation results, similar to those presented in section 2.1 and discuss how uncertainty should be considered in relation to project scenarios, Basin Optimization Yield, and rampdown.

8.2 Technical Rationale for Recommendation:
Relatively large amounts of uncertainty are presented in section 2.1 when discussing the sustainable yield estimates from the LPVB GSP. However, similar uncertainty quantification is not presented for the model scenario simulations developed as part of the BOY Study. Understanding the uncertainty associated with the information presented in the BOY Study may be important for stakeholders and policy makers when implementing the findings of the BOY Study. This understanding may also help reinforce the need for adaptive management of projects through consistent and high-quality groundwater monitoring.

8.3 Summary of Facts in Support of Recommendation:

- Quantitative uncertainty is presented for the sustainable yield estimates from the GSP but not for the yield and rampdown estimates presented in the BOY Study.
- Understanding uncertainty is important for stakeholders and policy makers.
- Documentation of uncertainty may also reinforce the need for adaptive management and consistent groundwater monitoring.

9. RECOMMENDATION 9: REVIEW AND CONSIDER SIGNIFICANT EDITS TO TEXT IDENTIFIED BY TAC

There are significant text edits identified through the TAC review that should be considered by the Watermaster in preparation for finalizing the draft BOY Study. Specific recommendations are referenced below.

9.1 Recommendations:

- Consider reframing the executive summary and section 6 to highlight the positive outcome that rampdown won't be necessary if the two identified projects proceed in a timely fashion and that both project and rampdown implementation will have to be adaptive processes guided by monitoring data and the required 5-year updates to the BOY Study. Suggested text for some of the revisions to the Executive Summary has been provided by Dr. Abrams and is attached.
- State in the BOY Study that simulated relative head changes are used and are deemed to be more reliable for comparing MTs to groundwater elevations. This is noted as a "shift" in hydrographs but should be more specific. Models are better at predicting head changes than they are at predicting actual heads. The second paragraph of section 1.3 might be a good place to include this information. Each instance of shifted hydrographs should also be identified in the text and on the relevant figures.
- Revise text in section 2.2 to refer to boundary *conditions* and the Somis fault as a barrier to groundwater flow as indicated in comments BA-7, 8, 9, 10, and 12 in the attached tabular comments.
- Consider including uncertainty in the presentation of sustainable yield in table 3-2 as a separate column where the uncertainty in the sustainable yield for each management area can be documented.
- Reference the Coastal Plain model uncertainty and difference between groundwater elevation observations during past in lieu water use presented in sections 2.2 and 3.1.4 when discussing assessment of model simulation results for the WLPMA in comparison to sustainability metrics. The intent would be to remind readers that the model simulated conditions at well 02N20W06R01 do not align with historical observations and that in practice sustainability in this area of the LPVB will be assessed using monitoring data and adaptive project management.
- Add explanatory text regarding the significant difference between the sustainable yield published in the First GSP Periodic Evaluation for the LPVB and the annual groundwater production rate identified in the basin-wide rampdown scenario.

- Add a table or tables in section 4 that summarize the Baseline, BOY Project, Basin-wide Rampdown, Differential Rampdown, and Sustainable Yield estimates for each management area to assist the reader in understanding the differences between the scenarios.
- Revise Conclusions to be consistent with changes to the Executive Summary and discuss all conclusions from the study. The existing Conclusions section is focused on the rampdown scenarios. All of the modeled scenarios should be discussed in this section along with reiterating that timely project implementation is shown to result in sustainable groundwater conditions without the need for basin-wide pumping reductions associated with rampdown. Suggested text for some of the revisions to the Conclusions was provided by Dr. Abrams and is attached. Also consider including a summary table of each scenario evaluated in the BOY Study in the conclusions to provide readers with context for the discussion of the conclusions.
- Develop and include a recommendations section. While the Judgment may not specifically call for recommendations, it would be prudent to include a discussion recommendations identified by the BOY Study. This should include recommendations for the rapid development of the projects identified in the BOY Study along with creation of contingency plans in case the projects are delayed or not successfully implemented, as raised in section 4. Recommendations could also include data needs, model clarifications and/or updates, and other ongoing tasks that would be prudent to consider pursuing ahead of the next update of the BOY Study.

9.2 Technical Rationale for Recommendation:

Technical rationale for each recommendation above is included in the context of the recommendation.

9.3 Summary of Facts in Support of Recommendation:

A summary of facts for this recommendation is not applicable.

10. RECOMMENDATION 10: REVIEW EDITORIAL COMMENTS PROVIDED BY TAC IN TABULATED COMMENT MATRIX

The TAC members each prepared detailed tabulated comments numbered by commentor with references to specific section and page numbers and quoted text. Many of these comments are editorial in nature and identify apparent errors in the draft BOY Study, including typographic errors and unclear text.

10.1 Recommendations:

Consider revising the text to address the comments identified as editorial and clarification in the attached tabular comment matrix.

10.2 Technical Rationale for Recommendation:

See individual editorial comments for rationale.

10.3 Summary of Facts in Support of Recommendation:
A summary of facts for this recommendation is not applicable.

11. TALLY OF COMMITTEE MEMBER VOTES

The TAC voted to approve the content of this Recommendation Report and authorize the TAC Administrator to submit it to the Watermaster in a meeting held February 3, 2026. The vote was unanimous, as shown below.

	Vote			
TAC Member	**Yes**	**No**	**Abstain**	**Absent**
Chad Taylor, Chair	X			
Tony Morgan, East LPV Representative	X			
Bob Abrams, West LPV Representative	X			

REPORT OF BASES FOR MAJORITY AND MINORITY COMMITTEE MEMBER POSITIONS

The TAC vote to present the recommendations above to the Watermaster was unanimous, as indicated above. The bases for the unanimous positions are described for each recommendation above. No minority positions were expressed by voting or non-voting TAC members.

Attachment 1

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee, Draft Basin Optimization Yield Study

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Draft Basin Optimization Yield Study

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BB-1	Bryan Bondy	Editorial	Clarification	5	2.1	*"CMWD no longer maintains the ELP Model but has provided this model to FCGMA to support management of the Basin."*	Calleguas has not made a decision to stop maintaining the model.
BB-2	Bryan Bondy	Editorial	Editorial	7	3.1.2	*"Of course, the exact future hydrology is unknown. Therefore, the synthetic future hydrology is a source of uncertainty in any future model simulations."*	Standalone sentence - should it be included in the prior paragraph?
BB-3	Bryan Bondy	Editorial	Editorial	12, 13, and 16	3.2.3.1 & Tables 3-2 and 3-3	*N/A*	Baseline groundwater production value for Epworth Gravels Mgmt. Area listed in text does not match value in Tables 3-2 and 3-3.
BB-4	Bryan Bondy	Editorial	Editorial	15 and 16	3.3.1 & Table 3-3	*N/A*	Groundwater production values for ELPMA and WLPMA listed in text do not match values in Table 3-3.
BB-5	Bryan Bondy	Editorial	Editorial	v	N/A	*Second paragraph, first sentence "...that provided quantifiable groundwater at a level of detail that could be included in the model."*	Groundwater what? Levels, flow, budgets?
BB-6	Bryan Bondy	Technical	Analysis Assumptions	7	3.1.2	*N/A*	An unstated assumption of the modeling approach is that the modeled hydrology between 10/1/22 and now is identical to that which has actually occurred. Consider qualitatively describing the difference between modeled and actual hydrology for this period and briefly describe (qualitatively) the impact on interpretation of the results.
BB-7	Bryan Bondy	Technical	Analysis Assumptions	8	3.1.3	*N/A*	An unstated assumption of the modeling approach is that water in storage credited to Calleguas MWD by FCGMA will remain in storage. Should this water be recovered, water levels would be lower than simulated and minimum thresholds may not be achieved. Consider describing this (qualitatively) for context.
BB-8	Bryan Bondy	Technical	Clarification	v & 1	ES, 2nd paragraph & 1, 2nd paragraph	*N/A*	It is unclear how the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) was included in the various simulations. Please clarify in text and add a simple table that lists the amount of surface water that was simulated to enter the model domain via the SFR package from Simi Valley for each simulation.
BB-9	Bryan Bondy	Technical	Epworth Gravels Mgmt. Area	Various	Various	*N/A*	It is stated on page 13 that the sustainable production rate for the Epworth Gravels Mgmt. Area is 1,320 AFY. The baseline Epworth Gravels Mgmt. Area extractions were less than this (1,024 AFY). Given this, please explain why the Epworth Gravels Mgmt. Area extractions were reduced in the rampdown scenarios. Please also caveat the rampdown to alert policymakers to the fact that it appears that Epworth Gravels Mgmt. Area rampdown does not appear necessary from a technical perspective.
BB-10	Bryan Bondy	Technical	Epworth Gravels Mgmt. Area	13	3.2.3.1	*"not all groundwater producers with wells in the Epworth Gravels Management Area received an allocation in the Judgment (Figure 3-4)."*	Two comments. (1) Estimates of Epworth Gravels Mgmt. Area extractions that are not included in the analysis should be provided (i.e. groundwater producers w/o a Judgment allocation) for context. This can be estimated from historical extractions reported to FCGMA. (2) Is the Epworth Gravels Management Area the only management area that has groundwater producers w/o a Judgment allocation? If no, estimates should also be provided for those management areas for context.
BB-11	Bryan Bondy	Technical	Epworth Mgmt Area Sustainable Yield vs. Rampdown Pumping	18	3.4.1.1	*"The estimated sustainable yields of the Epworth Gravels Management Area and the ELPMA were approximately 500 and 1,450 AFY higher, respectively, than the simulated groundwater production in the Basin-wide Rampdown scenario."*	This difference for Epworth Gravels Mgmt Area is significant on a percentage basis. Text should be added to explain why this large of a difference exists.
BB-12	Bryan Bondy	Technical	Projects and Rampdown	v and 26-27	ES and 6	*N/A*	Please add more text to remind the reader that implementation of either projects or rampdown would be an adaptive process that is guided by monitoring data and the required 5-year updates to this document.

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Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BB-13	Bryan Bondy	Technical	Rampdown Rate	N/A	5	*N/A*	It appears that the rampdown rates are based on an assumption that the amount of surface water entering ELPMA from Simi Valley will not change even if the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) is not executed. This should be made clear in the text and the rampdown rate should be caveated accordingly.
BB-14	Bryan Bondy	Technical	Rampdown Rate	18	3.4.1.1	*N/A*	Please clarify how rampdown was simulated in the rampdown model scenarios. It is unclear whether pumping at that the fully reduced rate was used for the entire rampdown period or if pumping was reduced incrementally each year during the rampdown period. If it is the former, the results should be caveated because the model scenario may be underestimating pumping and the resulting simulated groundwater levels may be overestimated.
BB-15	Bryan Bondy	Technical	Recommendations	N/A	N/A	*N/A*	There is no recommendations section. While the Judgment may not specifically call for recommendations, it would be prudent to include a discussion of data needs, model clarifications/updates, etc. that would be prudent to consider pursuing ahead of the next update of this document.
BB-16	Bryan Bondy	Technical	Technical	16	3.3.2.1	*"Although the groundwater elevation at the third well, Well 02N20W06R01, remained below the minimum threshold during the Projects Scenario, the groundwater elevation at the end of the scenario was similar to the elevation at the start of the scenario. This suggests that if the initial groundwater elevation can be raised at this well, ongoing production at the rates simulated in the Projects Scenario will maintain the groundwater elevation in the future."*	This text is unclear. What is meant by "if the initial groundwater elevation can be raised at this well"? How would this initial groundwater level increase be achieved? Would it be more appropriate to say that the simulated groundwater elevations are close to the MT and that is reasonable to conclude that the MT could be achieved consistently when considering uncertainty in the WLPMA model?
BB-17	Bryan Bondy	Technical	WLPMA Sustainable Yield vs. Rampdown Pumping	18	3.4.1.1	*"The estimated sustainable yield of the WLPMA in the First Periodic Evaluation was approximately 3,300 AFY lower than the simulated groundwater production in the Basin-wide Rampdown scenario."*	This is significant difference. Text should be added to explain why this large of a difference exists.
TM-1	Tony Morgan	General Editorial	spell out abbreviation	1	1.1	*LPV Judgment*	first use of Las Posas Valley so spell out abbreviation - Las Posas Valley (LPV) Judgment
TM-2	Tony Morgan	General Editorial	spell out abbreviation	5	2	*ELP Model; a MODLFOW numerical model…*	first use of ELP - spell out
TM-3	Tony Morgan	General Technical	model uncertainty	5	2.1	*uncertainty bounds in the sustainable yield …estimated using the ELP Model of ±2,300 AFY…*	the ±2,300 AFY uncertainty (on an ~18,000 AFY yield) is significant – on the order of 13% – which directly affects confidence in the BOY and rampdown values
TM-4	Tony Morgan	Technical	model uncertainty	6	2.1	*…uncertainty bounds in the sustainable yield for the WLPMA estimated using the GSP version of the VRGWFM of ±1,200 AFY …*	How is the model uncertainty considered in the analyses?
TM-5	Tony Morgan	Technical	sustainable yield uncertainty	22	4	*…model scenarios simulated for this BOY Study the Basin Optimization Yield is estimated to be 36,860 AFY if the in-lieu surface water delivery projects are implemented…*	How is the model uncertainty reflected in this value? Is it 36,860 AFY+/- the uncertainty?
TM-6	Tony Morgan	Technical	rampdowns	24	5.2	*…scenario groundwater production was reduced by 20% relative to the Baseline Scenario pumping in the WLPMA…*	It is recognized that the model used for WLPMA under predicts WLs for the Key Wells. If a 20% rampdown is needed per the model to ultimately get WLs above the MT, isn't it logical to assume that a lesser rampdown could achieve comparable results when the WLs are corrected for the under prediction tendencies of the model? It didn't seem like the underprediction was accounted for, at least semiquantitatively, in the analyses. Is the report suggesting a rampdown quantity that is too aggressive?

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Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
TM-7	Tony Morgan	Technical	conclusions	26	6	*Conclusion*	why does the Conclusion section focus solely on the ramp-down scenarios? Per Section 1, *the BOY Study evaluates groundwater conditions under three potential future production scenarios: (1) continued production at 40,000 acre-feet per year (AFY), the initial Operating Yield defined in the Judgment, (2) implementation of two groundwater in-lieu projects evaluated in the Basin Optimization Plan (BOP), and (3) a ramp-down scenario to determine the BOY in the event that the projects are not implemented.*. . Discussions of all three scenarios should be included in the Conclusions. Isn't the major take-away message that if the in-lieu delivery projects can be implemented promptly, then ramp-downs are not likely to be needed? Don't bury (or omit) the lead message.
TM-8	Tony Morgan	Technical	conclusions	26	6		It would be useful to the reader to have a summary table for each of the scenarios evaluated in the report. There are lots of numbers in the document. A summary in the conclusions makes it easier to compare the scenario outcomes. Suggest a table (with supporting text) that lists for each key well when each scenario brings water levels above the MT, is the MT achieved before 2040, water level trends (up or down), do water level trends suggest that MO will be met, etc.
TM-9	Tony Morgan	Technical	possible typo	7	3.1.1	*The future scenarios developed for the BOY Study simulate groundwater conditions in the Basin over the 47-year…*	reference to a “37-year modeled period” for trends in section 3.4.2.2 – this appears to be a typo, since the scenarios run 47 years
TM-10	Tony Morgan	Technical	timing of project implementation	8	3.1.3	*Table 3-1*	Table 3-1 indicates Time Period for Implementation as "Water Year 2027", but does not specifically identify when in WY2027 the water deliveries were initiated in the model
TM-11	Tony Morgan	Technical	timing of project implementation	8	3.1.3	*…the in-lieu project deliveries are not currently occurring. If implementation of the in-lieu project is delayed for multiple years, the modeled impacts of the project on groundwater levels in this BOY Study may 'overestimate the impact of this project…*	since these projects depend on agencies outside the Watermaster’s direct control, there is uncertainty in their yield and timing. The study already notes no agreements are signed yet. It might be prudent to recommend contingency planning (e.g., if by year X the projects are behind schedule, implement phased rampdowns to compensate). This is hinted in Section 4 (if Project 2 is not fully implemented, consider a Rampdown), which is a good inclusion.
TM-12	Tony Morgan	Technical	SGMA compliance	9	3.1.4	*…in the WLPMA, the long-term groundwater production rate was determined to be potentially sustainable if groundwater elevations remained stable over the future model period, such that the ending groundwater level was equal to or higher than the starting groundwater elevation."*	an additional criterion is used: a pumping rate is considered potentially sustainable if groundwater levels **stabilize or rise over the future period**, even if they start (and end) below the MT. It’s important to highlight the risk of allowing “stable but below-threshold” conditions, even temporarily, technically means undesirable results (as defined in the GSP) persist until those levels rise above MT. The study implies that with projects or rampdown, those key wells might not reach MT by 2040 but could soon after.
TM-13	Tony Morgan	Technical	Baseline Scenario extractions	10	3.2.2	*…the selected approach, with which the TAC concurred, was to distribute the Annual Allocation based on the reported pumping and MWC deliveries for DWR water year 2024…*	The distribution method ensures every drop of the 40,000 AFY is assigned to a specific well or MWC, preserving the water balance, and does so in a way that reflects current (2024) usage patterns. The model does not account for underutilization (which has occurred in the past couple of years) which results in carryover amounts that can have an as yet unmodeled impact on future water levels. The baseline scenario is logical, however, it would be useful to be more forthcoming with the shortcomings of the scenario assumptions as predictors of future conditions.
TM-14	Tony Morgan	General Technical	modeling assumptions	10	3.2.2		The modeling approach could be more robust by accounting for the carryover amounts earned in the wet periods and their use in subsequent dry periods. For example, assume carryover was earned in "above normal wet years" at a rate consistent with GW use in recent wet years. The carryover would be used in dry years when irrigated water demand is greater than the average. It is not clear how this would impact efforts to bring GW levels above the MT, but it would offer a more likely scenario for how the basin would operate.
TM-15	Tony Morgan	Technical	estimated sustainable yield uncertainty	12	3.2.2.2	*Table 3-2 Estimated Sustainable Yield*	shouldn't the sustainable yield be +/- the uncertainty ? Suggest adding another column to show the possible range of the sustainable yield OR put the range in paretheses in the same cell as the Estimated Sustainable Yield. For example, WLPMA Estimated Sustainable Yield is 11,400 (10,200-12,600), ELPMA + EG is 19,230 (16,930-21,530). LPVB sustainable yield is 30,630 (27,137-34,130).

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TM-16	Tony Morgan	Technical	in lieu amounts	17	3.2.2.2	*...the LAS groundwater production was reduced by 1,760 AFY to simulate implementation of the in-lieu surface water delivery project to Zone MWC and VCWWD 19."*	Is the in lieu delivery amount being overestimated because the WLPMA model under predicts WL responses to imported water? Could a lesser in lieu amount achieve the same result if the model's WLs were adjusted to account for the underprediction?
TM-17	Tony Morgan	Technical	possible typo	15	3.3.1	*The resulting groundwater production rates were 16,656 AFY in the WLPMA and 16,420 AFY in the ELPMA (Table 3-3).*	Table 3-3 shows ELPMA pumping as 19,179 AFY in the Projects scenario, but 16,420 AFY in text. Looks like the text should be changed to 19,179 AFY which is consistent with modeled ~7% reduction. Similar for WLPMA - Table 3-3 shows 16,657 AFY, text says 16,656 AFY– likely typo.
TM-18	Tony Morgan	Technical	estimated sustainable yield uncertainty	16	3.3.1	*Table 3-3*	how is model uncertainty accounted for in this table?
TM-19	Tony Morgan	Technical	SGMA compliance	16	3.3.2	*...if the initial groundwater elevation can be raised at this well, ongoing production at the rates simulated in the Projects Scenario will maintain the groundwater elevation in the future.*	WLPMA meets the softer criterion (stable levels at the problematic well). From a hydrogeologic standpoint, the in-lieu deliveries clearly mitigate drawdown in the targeted areas. It just flags one gap - one location still below threshold, requiring either trust in model correction of flow across Somis fault or additional management.
TM-20	Tony Morgan	Technical	SGMA compliance	19	3.4.1.2	*In the WLPMA, simulated groundwater elevations remained above the minimum threshold groundwater elevation at two of three Key Wells...*	The 20% reduction predicted water levels would remain below the MT in one Key Well. So, a 20% reduction is not actually consistent with SGMA goals of avoiding undesirable results. It is unknown if this "modified approach" to SGMA compliance is acceptable to DWR. Report states that model response is "...dampened relative to historical observations" therefore, groundwater elevations in this well are expected to be above the MT. What happens to the groundwater elevations in the other key wells if we account for the "dampened response"? Are we suggesting that a rampdown of some amount less that 20% is adequate if the dampened response is accounted for? If so, why not present the model results for that lower value? Does the use of a 20% rampdown put unnecessarily stringent cuts on ELPMA & Epworth?
TM-21	Tony Morgan	Technical	rampdowns	20	3.4.2.1	*...it should be noted that simulated groundwater elevations exhibited a declining trend over the 37-year modeled period."*	under the 11% cut, ELPMA is still *mildly overdrafting* , which is consistent with the note that water levels in ELPMA show a declining trend over the 47-year simulation (albeit all above MT). Is the declining trend over the SGMA compliance timeframe consistent with SGMA compliance requirements?
TM-22	Tony Morgan	General Editorial	add PVB, LPV, ELP, WMID to list of abbreviations	iii			
TM-23	Tony Morgan	General Technical	Somis fault/model boundaries				The WLPMA model has assigned properties to the Somis fault that are inconsistent with current hydrogeologic understanding. Before the next BOYS or Periodic Evaluation update, it is recommended that the model be updated to reflect our hydrogeologic conceptual model. This allows the forward forecasts to be used without having to consider the "dampened results" correction factor.
BA-1	Bob Abrams	Technical	Setting the tone of the report (that the report presents good news)	v	Executive Summary		Overall, the BOYS study and report present good news that rampdown won't be necessary if the two projects proceed in a timely fashion. Suggest revising the Executive Summary to highlight this and support better understanding of terms in the Judgment, such Operating Yield, etc. Please see accompanying Word file that presents my suggested revisions.
BA-2	Bob Abrams	Editorial	Conforming main text to suggested revised Executive Summary	v	Executive Summary		Left to Dudek to revise main text to hit the highlights noted in the suggested revised Executive Summary
BA-3	Bob Abrams	Editorial	Delete unneeded comma	3	1.3	*Undesirable results were defined in the GSP for the three management areas of the Basin: the East Las Posas Management Area (ELPMA), the Epworth Gravels Management Area, and the West Las Posas Management Area (WLPMA) , (FCGMA 2019).*	Delete identified comma (in red)

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BA-4	Bob Abrams	Technical	Use of modeled heads for MT metric versus head changes (i.e., the "shift" used in hydrographs)	3	1.3	*Because the MTs are the metric by which groundwater conditions in the Basin are determined to be sustainable, the BOY Study compares simulated future groundwater elevations in the Basin to the MTs at the Key Wells in the Basin. Future groundwater elevations were simulated using the two numerical groundwater models that cover the three management areas of the Basin. Simulated production rates that result in long-term stability of the groundwater elevations at levels above the MTs are considered sustainable. The Basin Optimization Yield is the production rate, with implementation of the Basin Optimization Projects that can be reasonably implemented by 2040 and maintains groundwater elevations above the MTs.*	Somewhere in the main text it should be stated that simulated relative head changes are used to compare to MTs for groundwater elevations. This is noted as a "shift" in hydrographs, but should be more specific. Models are better at predicting head changes than they are at predicting actual heads. This paragraph might be a good place to do that.
BA-5	Bob Abrams	Editorial	Inconsistent use of acronyms	5	2	*Coastal Plain Model: a version of the Ventura Regional Groundwater Flow Model (VRGFM) MODFLOW numerical model developed and maintained by UWCD, which covers the entirety of the WLPMA, Oxnard Subbasin, PVB, and Mound Subbasin (UWCD 2018).*	Ventura Regional Groundwater Flow Model is sometimes abbreviated as VRGFM and sometimes as VRGWFM. Be consistent.
BA-6	Bob Abrams	Editorial	Delete unneeded word	5	2	*Therefore, the only change FCGMA made to the model for the First Periodic Evaluation was to extend the simulation time period through the end of water year 2022 (i.e., September 30, 2022) (FCGMA 2024*	Delete the word "time" (in red)
BA-7	Bob Abrams	Technical	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably	6	2.2	*Although the Coastal Plain Model included improved hydrogeologic conceptual model data in several groundwater basins, the update also included a revision to the model boundary at the eastern edge of the WLPMA.*	Revise to: Although the Coastal Plain Model included improved hydrogeologic conceptual model data in several groundwater basins, the update also included a revision to the model boundary condition at the eastern edge of the WLPMA.
BA-8	Bob Abrams	Technical	Somis Fault is observed to be a flow barrier; should emphasize that this is an observation and not a model phenomenon	6	2.2	*In previous versions of the model, the boundary between the ELPMA and WLPMA was represented using a no-flow boundary condition, which is consistent with the Somis Fault acting as a barrier to groundwater flow between the two management areas (FCGMA 2019).*	Revise to: In previous versions of the model, the boundary between the ELPMA and WLPMA was represented using a no-flow boundary condition, which is consistent with the observation that the Somis Fault acts as a barrier to groundwater flow between the two management areas (FCGMA 2019).
BA-9	Bob Abrams	Technical	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably	6	2.2	*In contrast, the model boundary in the version of the model used in the First* *Periodic Evaluation and in this BOY Study is a general head boundary condition ...*	Insert the word "condition" as indicated in red. THERE ARE also two other instances in the next paragraph to insert the word "condition." One is noted in next comment along with suggested change in wording.
BA-10	Bob Abrams	Technical	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably, and clarification	6	2.2	*...simulated groundwater elevations do not rise as rapidly in response to* *reduced groundwater production as they would if the model boundary were a no-flow boundary.*	Revise to: ...simulated groundwater elevations do not rise as rapidly in response to reduced groundwater production as they would if the model boundary condition had not been changed from a no-flow boundary to a general head boundary. ~~they would if the model boundary~~
BA-11	Bob Abrams	Technical	Missing or extra words	6	2.2	*This rise is similar to that measured in the historical data between 1994 and 2006, when CMWD was delivering imported water in-lieu groundwater delivery to WLPMA*	Revise to: This rise is similar to that measured in the historical data between 1994 and 2006, when CMWD was delivering imported water in lieu of local groundwater pumping to the ~~r in-lieu groundwater delivery to~~ WLPMA

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BA-12	Bob Abrams	Technical	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably, and clarification	7	2.2	*The comparison of the observed historical change in groundwater elevation to the modeled change in groundwater elevation indicates that the model boundary change has introduced additional uncertainty into the predictive capabilities of the model in this region. Future work should be conducted to reduce this uncertainty by recalibrating the revised model using a no-flow boundary to better represent the hydrogeologic conceptual model of this area.*	Revise to: The comparison of the observed historical change in groundwater elevation to the modeled change in groundwater elevation indicates that UWCD's change to the model boundary condition between the WLPMA and ELPMA ~~model boundary change~~ has introduced errors and additional uncertainty into the predictive capabilities of the model in this region. Future work should be conducted to fix this error and reduce this uncertainty by recalibrating the revised model using a no-flow boundary condition to ~~better~~ represent the hydrogeologic conceptual model of this area.
BA-13	Bob Abrams	Editorial	Grammer	7	2.2	*Watermaster and TAC agreed that, while the change in the model boundary is not consistent with the hydrogeologic conceptual model, groundwater management decisions will be based on observed water levels, rather than model simulation .*	Change to "simulations"
BA-14	Bob Abrams	Editorial	Run-on sentence	7	2.2	*Because the UWCD model is capable of simulating groundwater elevations in the eastern portion of the WLPMA that rise above the minimum threshold prior to 2040 and remain above the minimum threshold from 2040 to 2070, use of the UWCD model files developed for the Periodic Evaluation remains the best available option to evaluate the BOY and complete this first BOY study prior to the beginning of the 2027 water year (October 1 2026 – September 30, 2027) (FCGMA 2025b).*	Change to: The UWCD model is capable of simulating groundwater elevations in the eastern portion of the WLPMA that rise above the minimum threshold prior to 2040 and remain above the minimum threshold from 2040 to 2070. Thus, the use of the UWCD model files developed for the Periodic Evaluation remains the best available option to evaluate the BOY and complete this first BOY study prior to the beginning of the 2027 water year (October 1, 2026 – September 30, 2027) (FCGMA 2025b)
BA-15	Bob Abrams	Editorial	Needs additional clarification	8	3.1.3	*The Arroyo Simi–Las Posas Water Acquisition project would involve the purchase or lease of recycled water from the City of Simi Valley to continue discharging the water from its shallow dewatering wells and/or the Simi Valley Water Quality Control Plant to the Arroyo Simi for downstream recharge to the Basin (FCGMA 2025a).*	Need a statement as to why this water can't continue without purchasing or leasing.
BA-16	Bob Abrams	Editorial	Needs additional clarification	10	3.1.4	*However, the updated Coastal Plain Model did not reproduce the same magnitude of groundwater elevation response as was observed historically (Figure 2-1). Therefore, project implementation and adjustment through groundwater elevation monitoring are expected to bring groundwater elevations back above the MT. Once the groundwater elevations are higher than the MT, a long-term production rate that results in stable groundwater elevations that remain above the MT is sufficient to avoid undesirable results.*	Revise to: However, the updated Coastal Plain Model did not reproduce the same magnitude of groundwater elevation response as was observed historically (Figure 2-1). Therefore, project implementation and adjustment of in-lieu delivery rates driven by ~~through~~ groundwater elevation monitoring are expected to bring groundwater elevations back above the MT. Once the groundwater elevations are higher than the MT, a long-term production rate can be determined that results in stable groundwater elevations that remain above the MT is sufficient to avoid undesirable results.
BA-17	Bob Abrams	Technical	Needs additional clarification	10	3.1.4	*Based on these results, a simulated groundwater flux of 800 AFY or less across the boundary between Oxnard Subbasin and the WLPMA was considered sustainable in this BOY Study.*	Which direction? Should state.
BA-18	Bob Abrams	Editorial	Grammer	10	3.2.1	*Additionally, some agricultural properties that historically reported extractions did not receive allocation.*	Insert the word "an": Additionally, some agricultural properties that historically reported extractions did not receive an allocation.

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Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BA-19	Bob Abrams	Technical	Terminology	10	3.2.1	*Because the BOY Study is intended to assess the ability of projects to maintain the BOY at as close to 40,000 AFY as possible, and to evaluate the need for a Rampdown relative to the Basin Optimization Yield, this BOY Study used the Water Year 2024 Annual Allocations published by the Watermaster as the basis for extractions in the numerical groundwater models.*	Revise to: Because the 2025 BOY Study is intended to assess the ability of projects to maintain the BOY at as close to 40,000 AFY as possible, and to evaluate the need for a Rampdown relative to the Initial Operating ~~Basin Optimization~~ Yield, this BOY Study used the Water Year 2024 Annual Allocations published by the Watermaster as the basis for extractions in the numerical groundwater models
BA-20	Bob Abrams	Technical	Wording	12	3.2.2.2	*The differences between the Baseline Scenario production rate and the average groundwater production from water years 2016 to 2024 are shown in Figure 3-4.*	Should state explicitly if these differences are increases or decreases, here and on Figure 3-4. e.g., text could say increases and decreases are shown on Figure 3-4. Figure legend could indicate which ranges equate to increases and which to decreases.
BA-21	Bob Abrams	Technical	Clarification	13	3.2.3.1	*If, during water year 2024, these Water Right Holders pumped less than average from the Epworth Gravels Management Area wells, the baseline pumping distribution in the BOY Study Baseline Scenario*	There should be some kind of text explaining that this is unavoidable and HOW THIS WILL be accounted for in the Operating Yield/
BA-22	Bob Abrams	Technical	Clarification	13	3.2.3.1	*Groundwater production at the Baseline Scenario rates was determined not to be sustainable in the ELPMA because simulated groundwater elevations at five Key Wells fell below the minimum threshold groundwater during the 47-year model run (Figure 3-6).*	Were these simulated hydrographs also shifted, as in Figure 3-5. If so there should be a note on the figure. Also, I think you need to say somewhere in the main text that you have more faith in simulated groundwater changes, than simply the simulated elevations.
BA-23	Bob Abrams	Technical	Clarification	15	3.3.1	*As discussed in Section 3.1.3, the Projects Scenario incorporated 1,760 AFY of surface water deliveries to offset groundwater production from six wells in the eastern WLPMA, and 1,380 AFY of surface water deliveries to offset production from three wells in the ELPMA.*	Which six wells? Which three wells?
BA-24	Bob Abrams	Technical	Interpretation of the Judgment	18	3.4.1.1	*The total extraction rate for the Basin-wide Rampdown Scenario was 32,000 AFY (Table 3-3).*	However, the Rampdown should be the Initial Operating Yield minus the BOY, or 40,000 acre-feet per year (AFY) minus 36,860 AFY. Accordingly, the Rampdown should be 3,140 AF, or approximately 224 AFY over the 14-year period between now and 2040. Further, my understanding is that the Judgment does not contemplate a no-project Rampdown or Rampdown Rate.
BA-25	Bob Abrams	Technical	Clarification	24	5.1	*Consistent with the Judgment, this initial BOY Study calculates a Rampdown Rate for a Basin-wide reduction in groundwater pumping if the projects are not implemented. The Rampdown Rate is the annual reduction in groundwater necessary to have the Operating Yield equal the Sustainable Yield by the fall of 2039 (Judgment §§1.89 and 4.10.1.4).*	Insert the word "production" as indicated in red: Consistent with the Judgment, this initial BOY Study calculates a Rampdown Rate for a Basin-wide reduction in groundwater pumping if the projects are not implemented. The Rampdown Rate is the annual reduction in groundwater production necessary to have the Operating Yield equal the Sustainable Yield by the fall of 2039 (Judgment §§1.89 and 4.10.1.4).
BA-26	Bob Abrams	Technical	Interpretation of the Judgment	24	5.1		As noted above, the Rampdown should be the Initial Operating Yield minus the BOY, or 40,000 acre-feet per year (AFY) minus 36,860 AFY. Accordingly, the Rampdown should be 3,140 AF, or approximately 224 AFY over the 14-year period between now and 2040. Further, my understanding is that the Judgment does not contemplate a no-project Rampdown or Rampdown Rate.
BA-27	Bob Abrams	Technical	Clarification	26	6		Suggest revising conclusions based on the suggested revisions to the Executive Summary. Please see accompanying Word file that presents my suggested revisions to the Conclusions section.
CT-1	Chad Taylor	Editorial	Error	3	1.3	*The Rampdown was calculated over a 13-year period…*	The rampdown period is identified as 14 years in other sections.
CT-2	Chad Taylor	Editorial	Missing footnote/endnote	3	1.3	*…(DWR water year 2027 through water year 2039 [1])…*	There is no footnote or endnote corresponding to the note identified in the second to last paragraph on page 3.

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Draft Basin Optimization Yield Study

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
CT-3	Chad Taylor	Editorial	missplaced word	13	3.2.3.1	*The simulated groundwater elevation declines in the northern ELPMA are consistent with previous model scenarios evaluated in for the GSP …*	Remove the unnecessary *for* in the last sentence of the last paragraph on the page.
CT-4	Chad Taylor	Editorial	Inconsistent values	15-16	3.3.1	*The resulting groundwater production rates were 16,656 AFY in the WLPMA and 16,420 AFY in the ElPMA (Table 3-3)*	The values referenced in this text don't match those in Table 3-3
CT-5	Chad Taylor	Technical	Rampdown and water budget	19	3.4.1.3	*…inflows exceed outflows by approximately 500 AFY in the Basin-wide Rampdown Scenario.*	Could the rampdown volume and rate for the WLPMA have been reduced if the simulation of pumping reduction resulted in a closer correlation of inflow and outflow? Was the difference between inflow and outflow necessary to recover from historical water level declines.
CT-6	Chad Taylor	Editorial	Inconsistent values	20	3.4.2.2	*…however, it should be note that simulated groundwater elevations exhibited a declining trend over the 37-year model period.*	In other sections of the report the model period is identified as 47 years.
CT-7	Chad Taylor	Editorial	Add comparison / compilation tables	22	4		Consider adding a table or tables in section 4 that summarize the Baseline, BOY Project, Basin-wide Rampdown, Differential Rampdown, and Sustainable Yield estimates for each management area to assist the reader in understanding the differences between the scenarios.
CT-8	Chad Taylor	Editorial	Expand explanation	24	5.1		Consider expanding the explanation of the rampdown period. As presented lay readers may not understand how the period from the fall of 2026 through the fall of 2039 equates to 14 years and is the appropriate denominator for calculating the rampdown period.
CT-9	Chad Taylor	General Technical	Rampdown period and sustainable conditions	24-25	5		It is not clear in Section 5 how water levels, which are the metric the BOY Study identifies will be used for assessing sustainability, are expected to react to the rampdown period. The model scenarios appear to indicate that over a 47 year period the annual groundwater production volumes pumped in the rampdown scenarios will achieve sustainability. However, the BOY Study does not appear to assess how long after reaching the rampdown pumping rate it will take for water levels to rise to the thresholds identified as sustainable. One assumes that prolonged pumping at rates in excess of the rampdown rate will result in water levels below the minimum thresholds in representative monitoring wells and it is not clear that one year of pumping at the rampdown rate at the end of the 14 year rampdown period will be sufficient to facilitate water level recovery.

aquilogic, Inc.
environment ● water ● strategy

245 Fischer Avenue, Suite D-2
Costa Mesa, CA 92626
Tel. +1.714.770.8040
Web: www.aquilogic.com

DRAFT MEMORANDUM

To: Chad Taylor, PG, CHg, LPVB Watermaster TAC Administrator
From: Bob Abrams, PhD, PG, CHg., LPVB Watermaster TAC Member
Date: January 23, 2026

Subject: Comments on the Draft Basin Optimization Yield (BOY) Study for the Las Posas Valley Basin (LPVB) Report and the Draft Water Year 2025 Annual Report
Project No.: 091-01

This memorandum is provided to transmit my comments on the draft LPVB BOY Study report and the draft Water Year 2025 Annual Report. Both draft reports are generally well-written. My email submittal contains four electronic files: (1) a native Excel spreadsheet of comments for the BOY Study report; (2) a native Word file providing suggested revisions to the BOY Study report Executive Summary (in Track Changes); (3) a native Word file providing suggested revisions to BOY Study report Conclusions (in Track Changes); and (4) a native Excel spreadsheet of comments for the Annual Report. Items 2 and 3 are also provided as **Attachments 1** and **2** to this memorandum.

The suggested revisions to the Executive Summary and Conclusions are provided in an attempt highlight the major finding of the BOY Study report. That is, Rampdown is not needed if the two projects described in the report are implemented as scheduled. **Attachments 1** and **2** are not necessarily provided as replacements for the respective sections of the report. Rather, they are provided as suggested text that may improve the messaging of the BOY Study report, which may help the layperson understand the main outcome of the BOY Study.

I should also note that my interpretation of the Judgment is that Rampdown should be the Initial Operating Yield minus the BOY, or 40,000 acre-feet per year (AFY) minus 36,860 AFY. Accordingly, the Rampdown should be 3,140 AF, or approximately 224 AFY over the 14-year period between now and 2040. Further, my understanding is that the Judgment does not contemplate a no-project Rampdown or Rampdown Rate.

Attachment 2

Recommended Edits to Executive Summary and Conclusions Sections, Draft Basin Optimization Yield Study, prepared by Bob Abrams, PhD

Suggested Revisions to Executive Summary

In conformance with the Judgment adjudicating groundwater rights in the Las Posas Valley Groundwater Basin (Basin), this report presents the results of the first Basin Optimization Yield (BOY) Study. The results of this BOY Study indicate that if the projects selected from the Basin Optimization Plan (BOP), Project 2 and Project 5, are implemented as scheduled, the BOY is 36,860 acre-feet per year (AFY).[1] BOP Project 2 is the purchase of imported water from Calleguas Municipal Water District (CMWD) for Basin replenishment. BOP Project 5 is an Arroyo Simi-Las Posas water acquisition project. It is anticipated that Rampdown will not be necessary during this five-year period, but could be implemented if conditions change based on monitoring, production levels, or failure to achieve anticipated progress implementing the BOP-identified projects.

The initial scope of this Study was reviewed by both the Technical Advisory Committee (TAC) and Policy Advisory Committee (PAC) for the Basin. The BOY was estimated using numerical groundwater model simulations that incorporated differing groundwater production rates and imported water associated with BOP Projects 2 and 5. The scenarios modeled included a Baseline, Project, and Rampdown Scenarios.

Two numerical groundwater models were utilized for this BOY Study. For the East Las Posas Management Ares (ELPMA), the groundwater model developed by CMWD was used. For the West Las Posas Management Ares (WLPMA), the Coastal Plain Model (CPM) developed by United Water Conservation District (UWCD) was used. The CPM incorrectly characterizes the boundary between the ELPMA and WLPMA (i.e., the Somis Fault), which allows groundwater to flow from the WLPMA to the ELPMA, contrary to conditions observed in the field. This reduces the simulated effectiveness of Project 2 in the WLMPA. Therefore, the BOY of 36,860 AFY should be considered a minimum value, because water levels observed in the field will increase more than the increase simulated by the CPM. This model error should be rectified prior to the 2030 BOY Study.

In the Baseline Scenario, groundwater production equaled the Initial Operating Yield of 40,000 AFY set by the Judgment. In the Projects Scenario, groundwater production was reduced at nine wells owned and operated by Zone Mutual Water Company (ZMWC), Ventura County Waterworks District 19 (VCWWD 19), and Ventura County Waterworks District 1 (VCWWD 1). The reduced groundwater production was replaced with imported water consistent with BOP Project 2. BOP Project 5 is a continuation of imported water that is currently discharged to Arroyo Simi-Las Posas outside of the Basin and therefore did not require any modifications to the numerical models. The Rampdown Scenario was developed to provide an estimate of the Rampdown that may be required in the unlikely event that BOP Projects 2 and 5 are not implemented as scheduled.

[1] In the Judgment, WY 2026 is defined as the period October 1, 2026 through September 30, 2027 and WY 2029 is defined as the period October 1, 2029 through September 30, 2030.

Simulated groundwater production at the Initial Operating Yield of 40,000 AFY was determined to be unsustainable because modeled future groundwater elevations at several Key Wells, or representative monitoring points, fell below the minimum threshold (MT) groundwater elevations established in the Groundwater Sustainability Plan (GSP) for the Basin. In the Projects Scenario, the BOY (the estimated yield that is projected to be available to achieve sustainable groundwater management by 2040) was determined to be 36,860 AFY. It should be noted that BOP Projects 2 and 5 rely on other water agencies for implementation. Thus inter-agency coordination is critical. Initial discussions between the Watermaster and these agencies have begun, but coordination agreements between the agencies have not yet been drafted.

In the unlikely event that BOP Projects 2 and 5 are not implemented, the BOY Study evaluated the Rampdown and Rampdown Rate for the Basin for two scenarios (in addition to the analysis required by the Judgment). In the first scenario, referred to as the Basin-wide Rampdown Scenario, groundwater production was reduced uniformly in all management areas relative to the Initial Operating Yield of 40,000 AFY until groundwater conditions avoided the undesirable results specified in the GSP. In this Scenario, the Operating Yield for WYs 2026-2029, without implementation of BOP Projects 2 and 5, was determined to be approximately 32,000 AFY.

If BOP Project 2 and 5 are not implemented, Rampdown under the first scenario is 8,000 AFY of groundwater production. Under this Rampdown scenario, groundwater production was reduced by 3,683 AFY in the WLPMA, 4,112 AFY in the ELPMA, and 205 AFY in the Epworth Gravels Management Area. The Rampdown Rate in the absence of projects was determined by dividing the Rampdown by the 14-year period over which it will be implemented. The no-projects Rampdown rate would be 571 AFY.

The no-projects Operating Yield may be higher than 32,000 AFY if circumstances indicate that a uniform Rampdown for all management areas is not appropriate pursuant to the Judgment's provisions on differential Rampdown. Thus, in the second Rampdown scenario, referred to as the Differential Rampdown Scenario, Rampdown differed by management area. Under this scenario the Operating Yield, in the absence of projects, was determined to be 33,942 AFY, and the overall Rampdown was 6,058 AFY. Groundwater production was reduced in this scenario by 3,683 AFY in the WLPMA, 2,261 AFY in the ELPMA, and 113 AFY in the Epworth Gravels Management Area. This scenario avoided undesirable results while maintaining higher overall groundwater production rates than the Basin-wide Rampdown Scenario.

It should be noted that three additional projects were identified in the BOP that could be implemented prior to WY 2040. These additional projects were not simulated in the 2025 BOY Study but should be considered for the 2030 BOY Study under the Judgment's standard for inclusion. These projects have the potential to raise the Basin Optimization Yield, and thus the Sustainable Yield, to the target 40,000 AFY by WY 2039. It should also be noted that WY 2025 groundwater extractions were only 32,656 AF and

WY 2024 groundwater extractions were only 28,031 AF.[2] Thus, the error in the CPM noted above and the low actual groundwater extractions during the last two WYs further support the determination that Rampdown is not presently needed if BOP Projects 2 and 5 are implemented as scheduled.

[2] These values are from the Draft Water Year 2025 Annual Report (note that the California Department of Water Resources [DWR] defines WY 2025 as the period October 1, 2024 through September 30, 2025). The Draft Water Year 2025 Annual Report notes that 86% of groundwater extractions had been reported by the time the draft report was releases.

Attachment 2: Suggested Revisions to Conclusions

Based on numerical modeling, with consideration of the inherent limitations of the models, the results of this BOY Study indicate that if BOP Project 2 and BOP Project 5 are implemented as scheduled, the BOY for WY 2026 through WY 2029 is 36,860 AFY, rendering Rampdown unnecessary at present. However, if these projects are not implemented as scheduled, the BOY may be as low as 32,000 AFY, which would require Rampdown to reduce the Operating Yield of the Basin so that it is equal to the BOY (and Sustainable Yield) of the Basin by the fall of 2039. In this case, the Judgment states that "following the first Basin Optimization Yield Study, Rampdown of the Operating Yield will commence in annual steps, if necessary" (Judgment §4.9.1.3).

The Baseline scenario includes 40,000 AFY of groundwater production for the Basin, as defined in the Judgment as the Initial Operating Yield. If BOP Projects 2 and 5 are not implemented as scheduled, this BOY Study report outlines two potential no-project Rampdown scenarios for the Watermaster to consider. The first is a Basin-wide Rampdown that reduces groundwater production by 20%, relative to the Baseline Scenario groundwater production of 40,000 AFY, in all management areas of the Basin (Sections 3.4.1 and 5.1).

The Judgment provides that a Differential Rampdown could be implemented that would result in "localized restrictions on extractions" (Judgment §4.10.3). This process includes, but is not limited to, committee consultation and a list of specific findings relative to the implementation of projects and the avoidance of undesirable results (Judgment §4.10.3.1). Although the process to implement a Differential Rampdown is more complex, this BOY Study finds that the Differential Rampdown approach avoids undesirable results while preserving higher overall groundwater production rates in the Basin.

Thus, the second no-project Rampdown scenario is a Differential Rampdown that reduces groundwater production in the ELPMA and Epworth Gravels Management Areas by 11%, relative to the Initial Operating Yield, and reduces groundwater production in the WLPMA by 20% relative to the Initial Operating Yield (Sections 3.4.2 and 5.2).

However, as noted above, Rampdown is unnecessary if BOP Projects 2 and 5 are implemented as scheduled.

LAS POSAS VALLEY WATERMASTER RESPONSE REPORT

Date: March 18, 2026

To: Las Posas Valley Watermaster Board of Directors

From: Kudzai Farai Kaseke, Assistant Groundwater Manager (FCGMA)

Re: Response Report to TAC Recommendation Report – Las Posas Valley Basin, Draft Basin Optimization Yield Study

The Las Posas Valley (LPV) Watermaster (Watermaster) requested consultation from the LPV Technical Advisory Committee (TAC) on the draft Basin Optimization Yield Study (BOY Study or BOYS). Watermaster's request was transmitted in a December 17, 2025, memorandum to TAC. Watermaster requested five previous TAC consultations regarding the BOY Study which guided preparation of the draft BOY Study:

- July 16, 2024, request for consultation on the BOY Study draft scope of work (August 27, 2024, TAC recommendation report)
- December 23, 2024, request for consultation on the BOY Study schedule (January 21, 2025, TAC recommendation report)
- January 7, 2025, presentation to TAC by Watermaster's consultant Dudek on the BOY Study modeling approach (January 21, 2025, TAC recommendation report)
- April 3, 2025, request for consultation on preferred modeling alternatives and impacts to schedule (May 9, 2025, TAC recommendation report)
- August 29, 2025, request for consultation on numerical modeling results (September 16, 2025, TAC recommendation report)

The TAC discussed and developed its recommendation report at its January 6, 2026, and January 20, 2026, regular meetings. TAC's February 3, 2026 (received February 9, 2026), recommendation report included ten recommendations and an attachment with 76 comments by each of the TAC members on specific sections of the draft BOY Study. Each of these recommendations is listed below followed by Watermaster response. Watermaster's responses to the 76 specific recommendations are included in the attached table. Watermaster appreciates TAC's prompt and thorough review of the draft BOY Study and recommendations.

RECOMMENDATION 1: Clarify How the Arroyo Simi-Las Posas Water Acquisition Project Was Simulated in the Model Scenarios

It is unclear how the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) was included in the various simulations. Please clarify in text and add a simple table that lists the amount of surface water that was simulated to enter the LPVB for each simulation. This is particularly important for the rampdown scenarios, which are described as being no-project scenarios. If they are no-project scenarios, please clarify that the current flows in the Arroyo Simi-Las Posas that Basin Optimization Plan Project 5 are intended to maintain were not included.

Response to Recommendation 1:

BOY Study text has been modified and a new table added to clarify the Simi Valley discharges used in the model simulations. As described in text and shown in draft BOY Study Table 3-1, the purpose

of the Arroyo Simi-Las Posas Water Acquisition project would be to maintain current upstream discharges to the Arroyo that flow into the LPV Basin. This project, if implemented, would ensure that the City of Simi Valley (City) would continue these discharges into the future. At the time of preparation of the LPV Groundwater Sustainability Plan (GSP), the City was considering diverting a portion of discharges from the Simi Valley Water Quality Control Plant (SVWQCP) and dewatering wells to produce additional recycled water for use in the Simi Valley Basin; however, the City subsequently indicated it had no near-term plan to decrease these discharges. Further, the City's 2020 Urban Water Management Plan, the most recently published Plan, does not project a significant increase in the production of recycled water in a 25-year planning horizon. Therefore, both the BOY Study Baseline and Project scenarios were simulated with the same volume of flows in the Arroyo entering the LPV Basin. This is consistent with the scenarios modeled in the First Periodic Evaluation of the GSP and Table 3-1 in the draft BOY Study which shows 0 acre-feet per year (AFY) increase in water supply over the current state if the project is implemented. Further, the consultation with TAC at the January 7, 2026, meeting on the planned modeling approach specifically identified that SVWQCP 2016 – 2022 average discharges of 8,040 AFY and 2016 – 2022 average dewatering well discharges of 1,318 AFY would be used for both the Baseline and Projects model scenarios. TAC's January 21, 2025, recommendation report regarding the BOY Study modeling approach did not contain any concerns or recommendations regarding the proposed Simi Valley discharges in the model scenarios.

RECOMMENDATION 2: Present Basin Optimization Yield and Rampdown Consistent with Judgment

The Judgment defines Basin Optimization Yield as the estimated yield projected to be available to achieve sustainable groundwater management by 2040 and rampdown as the deficit between the effective Operating Yield and the Basin Optimization Yield. The draft BOY Study references these definitions and identifies the Basin Optimization Yield as a groundwater production rate of 36,860 acre-feet per year (AFY), which includes implementation of Basin Optimization Projects and maintains sustainable groundwater conditions. However, the draft BOY Study then uses a different annual production rate to identify and define rampdown and rampdown rate. According to the Judgment, rampdown would therefore be 40,000 AFY minus 36,860 AFY, which is 3,140 AFY (current Operating Yield is 40,000 AFY and BOY Study calculated Basin Optimization Yield is 36,860 AFY).

This may point to a conflict within the Judgement. The reduction in pumping below the Operational Yield identified in the draft BOY Study as the Basin Optimization Yield applies only to those LPVB groundwater users who would receive project in lieu water deliveries. However, the Judgment requires rampdown to be applied to all groundwater users in the LPVB. The Judgment does not appear to contemplate a condition in which a no-project scenario results in rampdown, which is the context in which rampdown has been discussed and estimated in the draft BOY Study.

2.1 Additionally the Judgment requires that the Basin Optimization Yield be used by the Watermaster to allocate pumping to pumpers. If the Basin Optimization Yield identified in the BOY Study is used for this purpose, pumpers will not receive the correct annual allocations; it will be reduced by the volume of in lieu water delivered to the projects assessed in the BOY Study. Because the in lieu projects in the BOY Study offset some groundwater use, the volume

of water delivered for in lieu use should be included in the Basin Optimization Yield. Recommendations:

- Clarify how the Basin Optimization Yield with the in lieu projects will be used for future allocation determinations, and rampdown (which is assumed to be zero so long as projects are implemented).
- Explore and characterize how rampdown is being presented in the BOY Study in contrast to the definitions in the Judgment.
- Provide additional explanation for the context of including a no-project scenario and associated rampdown in the BOY Study. To avoid confusion, this explanation should differentiate between pumping reductions in the BOY Study and rampdown in the Judgment. This explanation should also inform the reader that uniform and differential pumping reductions are both presented for informational purposes only.

Response to Recommendation 2:
The draft BOY Study text lacked clarity regarding the Basin Optimization Yield; text has been revised for clarity. The Basin Optimization Yield under the Projects Scenario with implementation of both in-lieu projects is 40,000 AFY less the 3,140 AFY reductions by the in-lieu participants, for a net yield of 36,860 AFY for the remaining Water Right Holders. The in-lieu projects would consist of deliveries of 3,140 AFY of imported water from Calleguas MWD to Ventura County Waterworks Districts (VCWD) 1 and 19 and to Zone Mutual Water Company (MWC) to replace the 3,140 AFY these purveyors would otherwise pump. Participation by VCWD-1, VCWD-19, and Zone MWC, would be under the policy and terms to be established by Watermaster and agreements with the purveyors. Annual Allocation would be based on a Basin Optimization Yield of 40,000 AFY. Importantly, ongoing groundwater elevation monitoring will provide confirmation whether the projects are successful in raising groundwater levels above minimum thresholds at key wells in the Basin. Note that the Basin Optimization Yield will be re-evaluated in the 2030 BOY Study. BOY Study text has been revised to provide this clarification.

Regarding the two no-project Rampdown scenarios presented in the draft BOY Study, these were specifically requested for inclusion by the TAC in its September 16, 2025, recommendation report on BOY Study numerical modeling results; recommendation 5.1.1:

> Complete.iterative.simulations.in.both.management.areas.to.identify.the.amount.of. uniform. pumping. reduction. that. would. be. required. to. meet. sustainability. goals. without. implementing. any. new. projects¡. The. results. of. these. iterative. simulations. would. help. the. Watermaster. and. stakeholders. understand. the. effects. of. not. implementing.the.in_lieu.projects¡

BOY Study text has been updated to clarify the purpose of the two no-project Rampdown scenarios.

Following are responses to the bulleted comments in recommendation 2.1:

- Response to this comment is provided in the first paragraph above. BOY Study text has been updated to provide additional clarification.
- BOY Study text has been updated to provide additional clarification.
- BOY Study text has been updated to provide additional clarification.

RECOMMENDATION 3: Consider Addressing the Effects of the Somis Fault Model Boundary Condition on In Lieu and Rampdown Simulations

As noted in the draft BOY Study and raised by the TAC in previous recommendation reports, the Coastal Plain Model includes a boundary condition on the Somis fault that is inconsistent with the agreed-upon hydrogeologic conceptual model of the LPVB, the boundary condition in the East Las Posas Model, and the version of the Ventura Regional Groundwater Flow Model (VRGFM) that was used to develop the LPVB GSP. While the draft BOY Study indicates that the simulated in lieu and rampdown scenarios for the WLPMA are sustainable despite this issue with the Coastal Plain Model, it is possible that the volumes of water identified for in lieu delivery and reduced pumping in the projects and rampdown scenarios, respectively, exceed what would actually be required to achieve sustainable groundwater conditions in the WLPMA.

3.1 Recommendation:

Consider estimating the volumetric effect the inconsistent boundary condition has on the project and rampdown scenario simulations. This could allow the in lieu and rampdown volumes to be refined downward, reducing costs and impacts to WLPMA groundwater users.

Response to Recommendation 3:

A comparison of simulated groundwater level response in well 02N20W06R01 between the GSP Projects Scenario and the First Periodic Evaluation of the GSP Projects Scenario is provided in Figure 2-1 and discussed in section 2.2 of the draft BOY Study. This comparison was conducted between these two studies because the groundwater pumping distribution was similar, whereas the groundwater pumping distribution in the BOY Study model simulation was based on water-right allocations as discussed in section 3.2.2 of the draft BOY Study. This comparison showed that the simulated groundwater elevation response in the GSP was consistent with the observed groundwater elevation response to the 1994 to 2006 historical in-lieu program. Therefore, the historical program may provide a better guide to in-lieu program response in the WLPMA than the BOY Study Projects Scenario simulation. It should be noted that the in-lieu project does not require capital expenditure or planning for capital expenditure. Rather, this project simply requires annual purchases of imported water for use by purveyors in lieu of pumping groundwater. Ongoing groundwater elevation monitoring will provide direct evidence of the benefits of the in-lieu project and confirm whether groundwater elevations are above minimum thresholds. Annual in-lieu volumes can be adjusted as appropriate through adaptive management based on groundwater monitoring.

RECOMMENDATION 4: Clarify Existing and Projected Conditions in the Epworth Gravels Management Area

The information presented for the Epworth Gravels Management Area (EGMA) should be expanded to explain several factors. These include the presence of groundwater producers without allocations in the Judgment, the effects of recent pumping patterns on model simulations, and the need for rampdown in the management area if the Basin Optimization Plan projects are not implemented.

4.1 Recommendations:

- In section 3.2.3.1:
  - Provide more information and quantify or estimate how much pumping in the EGMA is not accounted for in the distribution of allocations in the Judgment.

  - Provide similar information for the other management areas or note the absence of pumpers without allocations in those management areas.
- Provide additional information regarding the effects of using water year 2024 pumping in the EGMA for the 47-year model period and how this will be accounted for in the Operating Yield for the management area and LPVB.
- Explain why the difference between the estimated sustainable yield and rampdown volumes were so large for the EGMA.
- Explain why EGMA pumping is reduced in the rampdown scenarios when the baseline production rate for the management area is already lower than the sustainable yield, as indicated on page 13 of the draft BOY Study.
- Provide additional discussion of the differential rampdown scenario results in the EGMA, specifically addressing continuing declines in groundwater levels shown on Figure 3-13.

Response to Recommendation 4:
The BOY Study text discusses issues related to model simulations for the Epworth Gravels Management Area. Forecasting extractions, and thus future groundwater conditions, in the Epworth Gravels aquifer is problematic, as the Epworth Gravels Management Area is fully contained within the ELPMA and many Water Right Holders within the Epworth Gravels Management Area have wells that extract from the Epworth Gravels aquifer and wells that extract from the underlying Fox Canyon and/or Grimes Canyon aquifers. The BOY Study simulations distributed pumping by Water Right Holders based on pumping reported for water year 2024, the first available year of reporting under the Judgment. Because these Water Right Holders may vary their pumping between the two aquifers year-to-year, the simulated future groundwater elevations should not be overly relied upon. Additionally, not all groundwater producers with wells in the Epworth Gravels Management Area received Water Right allocations in the Judgment. Text in the BOY Study has been expanded to include an estimate of the unauthorized extraction that may be occurring in the Epworth Gravels.

Following are responses to the bulleted comments in recommendation 4.1:

- Estimates of unauthorized pumping by operators without Water Right allocations has been added to the BOY Study for the management areas.
- Section 3.2.2 of the draft BOY Study contains a detailed explanation of the Baseline Scenario pumping distribution methodology. The methodology is based on the Annual Allocations distributed among multi-well and mutual-water-company exclusive and hybrid users based on the DWR water year 2024 pumping, the first full water year of water-use-reporting available post Judgment implementation. This methodology was presented to, and agreed with, by the TAC. Because the Epworth Gravels Management Area is wholly within the ELPMA, and because Water Right Holders typically extract from both the Epworth Gravels aquifer and the underlying Fox Canyon aquifer, it is recommended that the Operating Yields of the Epworth Gravels Management Area and ELPMA be managed together.
- As discussed above, the Operating Yield, and Rampdown, in the Epworth Gravels Management Area should be managed together with the ELPMA.
- As noted in Section 3.4.2.2, the hydrograph for the Epworth Gravels Management Area Key Well is in Appendix B, not shown in Figure 3-13.

RECOMMENDATION 5: Clarify How Pumping and Water Budget Changes Were Applied in Model Scenarios, Specifically with Respect to Temporal Variability in Pumping Volume and Distribution

It is not clear from the descriptions of model scenarios if pumping was held constant for every year of the simulation period for each scenario, or if pumping volume and/or distribution were varied during the simulation period.

While this comment and recommendation applies to all model simulations, it is particularly important for the rampdown scenarios. It is unclear whether pumping at the fully reduced rate was used for the entire rampdown simulation period or if pumping was reduced incrementally each year. If it is the former, the TAC questions whether rampdown will be effective in achieving sustainable groundwater conditions by 2040. As presented in the BOY Study, the model scenarios indicate that over the 47-year model period the annual groundwater production volumes pumped in the rampdown scenarios will achieve sustainability. However, the BOY Study does not appear to assess how long after reaching the rampdown pumping rate it will take for water levels to rise to the thresholds identified as sustainable. Prolonged pumping at rates in excess of the rampdown rate may result in water levels below the minimum thresholds in representative monitoring wells and it is not clear that one year of pumping at the rampdown rate at the end of the 14-year rampdown period will be sufficient to facilitate water level recovery.

5.1 Recommendations:

- Clarify how pumping and other water budget changes were applied in model scenarios, especially as it relates to rampdown rate implementation over time during the model period.
- Assuming the rampdown was assumed to have occurred before the start of each scenario and pumping during the entire model period was equal to the rampdown rate for the scenario, explain how long water level recovery to sustainable conditions may take after rampdown is complete.

Response to Recommendation 5:

Simulated groundwater production was constant for the duration of each modeling scenario from the start of the simulated model time period of October 2022. It is important to recognize that numerical groundwater models are more effective at simulating changes and trends in groundwater elevations than they are at forecasting absolute groundwater elevations. For this reason and given the known uncertainties in the models and especially uncertainties in the distribution of future groundwater extraction and future precipitation, trying to use the model simulations to predict specific groundwater elevations at a specific future year would be inappropriate. Rather, the BOY Study appropriately uses numerical groundwater model simulations to forecast groundwater elevation trends over time to evaluate whether a given pumping scenario may be sustainable. That said, review of simulated Baseline Scenario hydrographs (e.g., well 03N19W28N03S) suggests that significant delay of project implementation, or Rampdown if the projects are not implemented, could be a challenge to achieving sustainability by 2040. The model simulations provide the Watermaster Board with the best-available information for management actions; however, ongoing groundwater elevation monitoring will provide direct evidence and confirmation whether groundwater elevations are above, or trending to, minimum thresholds, to provide the Watermaster with the information needed for adaptive management.

RECOMMENDATION 6: Clearly Identify Assumptions Associated with Modeling and Other Analyses in the BOY Study

The TAC review identified some unstated assumptions in the modeling approach that should be included in the BOY Study. These include the assumption that modeled hydrology from the beginning of water year 2023 and current is consistent with actual conditions and that water in storage credited to Calleguas Municipal Water District will remain in storage. There may be other assumptions that are implicit in the modeling and other analyses in the BOY Study and these should be clearly identified and discussed in a dedicated section of the report.

6.1 Recommendations:

Clearly describe and explain the implications of assumptions in the modeling and other analyses in the BOY Study, including but not limited to the following:

- The difference between modeled and actual hydrology for the period from beginning of water year 2023 (October 2022) through the end of water year 2025 (September 2025) and briefly describe (qualitatively) the impact on interpretation of model results.
- The potential effects of recovery of water stored by Calleguas Municipal Water District on water levels, water budgets, and sustainable groundwater conditions.

Response to Recommendation 6:
A table has been added provide the water supply assumptions included in the modeling scenarios.

Following are responses to the bulleted comments in recommendation 6.1:

- Numerical groundwater models are most effective at simulating changes and trends in groundwater elevations rather than forecasting absolute groundwater elevations in any given year. The models use a synthetic forecast of precipitation based on historical precipitation for future hydrology, as described in section 3.1.2 of the draft BOY Study. Because actual precipitation since October 2022 naturally was different from the synthetic forecast, this affected groundwater elevations measured at some key wells. The hydrographs of the simulated future groundwater elevations were shifted to start at the most recent groundwater elevations measured in water year 2024. Explanation of this shift has been added to the BOY Study text.
- Calleguas MWD has represented that the water it has stored in the Basin is principally for an emergency when it loses access to imported water from the Metropolitan Water District of Southern California (MWD). Scenarios when this situation might occur such as a disruption in the Bay Delta or an earthquake that disrupts the supply line between MWD and Calleguas would likely be associated with a State-wide emergency situation. It is beyond the scope of the GSP or the BOY Study to include planning for such State-wide emergencies. Calleguas has represented that it would replenish stored water at the earliest opportunity when used for other purposes. Much more information about Calleguas' operations and plans will become public upon the completion of the Calleguas ASR Project Operation Plan which is required to be prepared by the Judgment. When the Operation Plan becomes available, consideration can be made as to how Calleguas' water-storage operation should be considered in the next 5-year BOY Study. The BOY Study text has been updated to explain the

assumption that the Calleguas MWD water will remain in storage in the Basin over the long term.

RECOMMENDATION 7: Discuss The Potential Effects of Carryover Water on Sustainable Management of the Basin

The methodology used to distribute pumping in the baseline and other model scenarios assumed that pumping was constant every year and that all active wells produced the same volume of groundwater every year. While this approach preserves the water balance and allows the model to show how hydrologic variability affects groundwater conditions, it does not allow for assessment of the impacts of highly variable changes in groundwater pumping dependent on those same hydrologic conditions. Recent groundwater use in the LPVB has been below the current Operational Yield of 40,000 AFY, which indicates that some water rights holders have been accumulating carryover water, which is common during wet years.

Subsequent use of carryover water in dry years has the potential to effect groundwater sustainability and should be discussed.

7.1 Recommendation:

Discuss the potential effects of carryover water on sustainable management in the LPVB in light of the scenarios simulated for the BOY Study.

Response to Recommendation 7:
TAC identifies Carryover as an important challenge to groundwater management in the Basin. As discussed in section 3.2.2 of the draft BOY Study, assumptions were made regarding the simulated future pumping distribution (with TAC consultation and concurrence) because the Judgment Water Right Allocations are significantly different than historical pumping patterns. Carryover use causes additional uncertainty. There will have been several years of pumping and potential Carryover use that will inform simulated future pumping in the next 5-year BOY Study. Text in the current BOY Study has been updated to qualitatively identify the uncertainty associated with future Carryover use.

RECOMMENDATION 8: Document and Discuss Uncertainties in the Model Results as They Relate to the Findings of the BOY Study

Uncertainty in model results is presented alongside some values in section 2.1 of the draft BOY Study but then not explored further when describing the project scenario simulations, Basin Optimization Yield, or rampdown scenarios. Adding discussion of uncertainty and contextualizing quantified uncertainty would help readers understand the confidence that should be placed on the projections for LPVB management based on model simulations.

8.1 Recommendations:

Show quantitative estimates of uncertainties for all model simulation results, similar to those presented in section 2.1 and discuss how uncertainty should be considered in relation to project scenarios, Basin Optimization Yield, and rampdown.

Response to Recommendation 8:
The BOY Study text has been updated to include quantitative and qualitative uncertainty in the discussion of the modeled scenarios. It is important to recognize the model simulations provide the Watermaster Board with the best-available information for management actions; however, ongoing groundwater elevation monitoring will provide direct evidence and confirmation whether groundwater elevations are above, or trending to, minimum thresholds, to provide the Watermaster with the information needed for adaptive management.

RECOMMENDATION 9: Review and Consider Significant Edits to Text Identified by TAC

There are significant text edits identified through the TAC review that should be considered by the Watermaster in preparation for finalizing the draft BOY Study. Specific recommendations are referenced below.

9.1 Recommendations:

[bullets have been replaced with letters for ease of reference in responses]

a. Consider reframing the executive summary and section 6 to highlight the positive outcome that rampdown won't be necessary if the two identified projects proceed in a timely fashion and that both project and rampdown implementation will have to be adaptive processes guided by monitoring data and the required 5-year updates to the BOY Study. Suggested text for some of the revisions to the Executive Summary has been provided by Dr. Abrams and is attached.
b. State in the BOY Study that simulated relative head changes are used and are deemed to be more reliable for comparing MTs to groundwater elevations. This is noted as a "shift" in hydrographs but should be more specific. Models are better at predicting head changes than they are at predicting actual heads. The second paragraph of section 1.3 might be a good place to include this information. Each instance of shifted hydrographs should also be identified in the text and on the relevant figures.
c. Revise text in section 2.2 to refer to boundary conditions and the Somis fault as a barrier to groundwater flow as indicated in comments BA-7, 8, 9, 10, and 12 in the attached tabular comments.
d. Consider including uncertainty in the presentation of sustainable yield in table 3-2 as a separate column where the uncertainty in the sustainable yield for each management area can be documented.
e. Reference the Coastal Plain model uncertainty and difference between groundwater elevation observations during past in lieu water use presented in sections 2.2 and 3.1.4 when discussing assessment of model simulation results for the WLPMA in comparison to sustainability metrics. The intent would be to remind readers that the model simulated conditions at well 02N20W06R01 do not align with historical observations and that in practice sustainability in this area of the LPVB will be assessed using monitoring data and adaptive project management.
f. Add explanatory text regarding the significant difference between the sustainable yield published in the First GSP Periodic Evaluation for the LPVB and the annual groundwater production rate identified in the basin-wide rampdown scenario.

g. Add a table or tables in section 4 that summarize the Baseline, BOY Project, Basin- wide Rampdown, Differential Rampdown, and Sustainable Yield estimates for each management area to assist the reader in understanding the differences between the scenarios.
h. Revise Conclusions to be consistent with changes to the Executive Summary and discuss all conclusions from the study. The existing Conclusions section is focused on the rampdown scenarios. All of the modeled scenarios should be discussed in this section along with reiterating that timely project implementation is shown to result in sustainable groundwater conditions without the need for basin-wide pumping reductions associated with rampdown. Suggested text for some of the revisions to the Conclusions was provided by Dr. Abrams and is attached. Also consider including a summary table of each scenario evaluated in the BOY Study in the conclusions to provide readers with context for the discussion of the conclusions.
i. Develop and include a recommendations section. While the Judgment may not specifically call for recommendations, it would be prudent to include a discussion recommendations identified by the BOY Study. This should include recommendations for the rapid development of the projects identified in the BOY Study along with creation of contingency plans in case the projects are delayed or not successfully implemented, as raised in section 4. Recommendations could also include data needs, model clarifications and/or updates, and other ongoing tasks that would be prudent to consider pursuing ahead of the next update of the BOY Study.

Response to Recommendation 9:
Following are responses to the bulleted comments in recommendation 9.1:

a. The Executive Summary and the Conclusions section of the BOY Study have been rewritten to clarify that modeling of the Projects Scenario suggests that Rampdown may not be needed if the projects are implemented in a timely manner, and the two Rampdown scenarios are included for informational purposes should the projects not be implemented. The text has been revised considering text suggestions provided by Dr. Abrams.
b. TAC correctly points out that numerical groundwater models are better at predicting changes and trends in simulated future groundwater elevations than they are in predicting actual future groundwater elevations. The BOY Study text has been updated to include discussion of the shifts in starting simulated groundwater elevation in hydrographs of certain key wells. Hydrographs have been revised with a note.
c. BOY Study text has been revised to address comments BA-7, 8, 9, 10, and 12, regarding the boundary condition in the Coastal Plain Model at the Somis Fault.
d. Table 3-2 has been updated to provide estimated uncertainty for the sustainable yield estimates of each management area.
e. Watermaster agrees with this recommendation. BOY Study text has been updated to clarify that model simulations in the vicinity of well 02N20W06R01do not align with historical observations and that in practice sustainability in this area of the LPVB will be assessed using monitoring data and adaptive project management.
f. BOY Study text has been updated to provide explanation as to the differences in sustainable yield estimates in the First Periodic Evaluation of the GSP and the BOY Study scenarios.
g. Text has been extensively revised for clarity rendering a table unnecessary.

h. The Conclusions section and Executive Summary have been revised based on TAC recommendations, TAC member comments, and Dr. Abrams' suggested text.
i. The TAC correctly points out that the Judgment does not call for a recommendations section and Watermaster does not believe adding a recommendations section is appropriate, especially the new recommendation by the TAC to create contingency plans. Watermaster notes that this newly recommended scope was not in the draft scope of work which was subject of a July 16, 2024, TAC consultation nor did TAC include recommendations for this additional scope of work in its August 27, 2024, recommendations report. That said, recommendations that are discussed in various sections of the BOY text have been summarized in the updated Conclusions section for easy reference.

RECOMMENDATION 10: Review Editorial Comments Provided by TAC in Tabulated Comment Matrix

The TAC members each prepared detailed tabulated comments numbered by commentor with references to specific section and page numbers and quoted text. Many of these comments are editorial in nature and identify apparent errors in the draft BOY Study, including typographic errors and unclear text.

10.1 Recommendations:

Consider revising the text to address the comments identified as editorial and clarification in the attached tabular comment matrix.

Response to Recommendation 10:
The BOY Study text was reviewed and revised where appropriate in response to TAC's recommendations. The text and tables of the BOY Study have been revised, where appropriate, in response to TAC member comments provided in the table attached to the recommendation report. Detailed responses to each of the TAC member comments are included in the attached table.

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Draft Basin Optimization Yield Study

Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
BB-1	Clarification	5	2.1	*"CMWD no longer maintains the ELP Model but has provided this model to FCGMA to support management of the Basin."*	Calleguas has not made a decision to stop maintaining the model.
BB-2	Editorial	7	3.1.2	*"Of course, the exact future hydrology is unknown. Therefore, the synthetic future hydrology is a source of uncertainty in any future model simulations."*	Standalone sentence - should it be included in the prior paragraph?
BB-3	Editorial	12, 13, and 16	3.2.3.1 & Tables 3-2 and 3-3	*N/A*	Baseline groundwater production value for Epworth Gravels Mgmt. Area listed in text does not match value in Tables 3-2 and 3-3.
BB-4	Editorial	15 and 16	3.3.1 & Table 3-3	*N/A*	Groundwater production values for ELPMA and WLPMA listed in text do not match values in Table 3-3.
BB-5	Editorial	v	N/A	*Second paragraph, first sentence "...that provided quantifiable groundwater at a level of detail that could be included in the model."*	Groundwater what? Levels, flow, budgets?
BB-6	Analysis Assumptions	7	3.1.2	*N/A*	An unstated assumption of the modeling approach is that the modeled hydrology between 10/1/22 and now is identical to that which has actually occurred. Consider qualitatively describing the difference between modeled and actual hydrology for this period and briefly describe (qualitatively) the impact on interpretation of the results.
BB-7	Analysis Assumptions	8	3.1.3	*N/A*	An unstated assumption of the modeling approach is that water in storage credited to Calleguas MWD by FCGMA will remain in storage. Should this water be recovered, water levels would be lower than simulated and minimum thresholds may not be achieved. Consider describing this (qualitatively) for context.
BB-8	Clarification	v & 1	ES, 2nd paragraph & 1, 2nd paragraph	*N/A*	It is unclear how the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) was included in the various simulations. Please clarify in text and add a simple table that lists the amount of surface water that was simulated to enter the model domain via the SFR package from Simi Valley for each simulation.
BB-9	Epworth Gravels Mgmt. Area	Various	Various	*N/A*	It is stated on page 13 that the sustainable production rate for the Epworth Gravels Mgmt. Area is 1,320 AFY. The baseline Epworth Gravels Mgmt. Area extractions were less than this (1,024 AFY). Given this, please explain why the Epworth Gravels Mgmt. Area extractions were reduced in the rampdown scenarios. Please also caveat the rampdown to alert policymakers to the fact that it appears that Epworth Gravels Mgmt. Area rampdown does not appear necessary from a technical perspective.

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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
BB-10	Epworth Gravels Mgmt. Area	13	3.2.3.1	*"not all groundwater producers with wells in the Epworth Gravels Management Area received an allocation in the Judgment (Figure 3-4)."*	Two comments. (1) Estimates of Epworth Gravels Mgmt. Area extractions that are not included in the analysis should be provided (i.e. groundwater producers w/o a Judgment allocation) for context. This can be estimated from historical extractions reported to FCGMA. (2) Is the Epworth Gravels Management Area the only management area that has groundwater producers w/o a Judgment allocation? If no, estimates should also be provided for those management areas for context.
BB-11	Epworth Mgmt. Area Sustainable Yield vs. Rampdown Pumping	18	3.4.1.1	*"The estimated sustainable yields of the Epworth Gravels Management Area and the ELPMA were approximately 500 and 1,450 AFY higher, respectively, than the simulated groundwater production in the Basin-wide Rampdown scenario."*	This difference for Epworth Gravels Mgmt. Area is significant on a percentage basis. Text should be added to explain why this large of a difference exists.
BB-12	Projects and Rampdown	v and 26-27	ES and 6	*N/A*	Please add more text to remind the reader that implementation of either projects or rampdown would be an adaptive process that is guided by monitoring data and the required 5-year updates to this document.
BB-13	Rampdown Rate	N/A	5	*N/A*	It appears that the rampdown rates are based on an assumption that the amount of surface water entering ELPMA from Simi Valley will not change even if the Arroyo Simi-Las Posas water acquisition project (Basin Optimization Plan Project 5) is not executed. This should be made clear in the text and the rampdown rate should be caveated accordingly.
BB-14	Rampdown Rate	18	3.4.1.1	*N/A*	Please clarify how rampdown was simulated in the rampdown model scenarios. It is unclear whether pumping at that the fully reduced rate was used for the entire rampdown period or if pumping was reduced incrementally each year during the rampdown period. If it is the former, the results should be caveated because the model scenario may be underestimating pumping and the resulting simulated groundwater levels may be overestimated.
BB-15	Recommendations	N/A	N/A	*N/A*	There is no recommendations section. While the Judgment may not specifically call for recommendations, it would be prudent to include a discussion of data needs, model clarifications/updates, etc. that would be prudent to consider pursuing ahead of the next update of this document.
BB-16	Technical	16	3.3.2.1	*"Although the groundwater elevation at the third well, Well 02N20W06R01, remained below the minimum threshold during the Projects Scenario, the groundwater elevation at the end of the scenario was similar to the elevation at the start of the scenario. This suggests that if the initial groundwater elevation can be raised at this well, ongoing production at the rates simulated in the Projects Scenario will maintain the groundwater elevation in the future."*	This text is unclear. What is meant by "if the initial groundwater elevation can be raised at this well"? How would this initial groundwater level increase be achieved? Would it be more appropriate to say that the simulated groundwater elevations are close to the MT and that is reasonable to conclude that the MT could be achieved consistently when considering uncertainty in the WLPMA model?

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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
BB-17	WLPMA Sustainable Yield vs. Rampdown Pumping	18	3.4.1.1	*"The estimated sustainable yield of the WLPMA in the First Periodic Evaluation was approximately 3,300 AFY lower than the simulated groundwater production in the Basin-wide Rampdown scenario."*	This is significant difference. Text should be added to explain why this large of a difference exists.
TM-1	spell out abbreviation	1	1.1	*LPV Judgment*	first use of Las Posas Valley so spell out abbreviation - Las Posas Valley (LPV) Judgment
TM-2	spell out abbreviation	5	2	*ELP Model; a MODLFOW numerical model…*	first use of ELP - spell out
TM-3	model uncertainty	5	2.1	*uncertainty bounds in the sustainable yield …estimated using the ELP Model of ±2,300 AFY…*	the ±2,300 AFY uncertainty (on an ~18,000 AFY yield) is significant – on the order of 13% – which directly affects confidence in the BOY and rampdown values
TM-4	model uncertainty	6	2.1	*…uncertainty bounds in the sustainable yield for the WLPMA estimated using the GSP version of the VRGWFM of ±1,200 AFY …*	How is the model uncertainty considered in the analyses?
TM-5	sustainable yield uncertainty	22	4	*…model scenarios simulated for this BOY Study the Basin Optimization Yield is estimated to be 36,860 AFY if the in-lieu surface water delivery projects are implemented…*	How is the model uncertainty reflected in this value? Is it 36,860 AFY+/- the uncertainty?
TM-6	rampdowns	24	5.2	*…scenario groundwater production was reduced by 20% relative to the Baseline Scenario pumping in the WLPMA…*	It is recognized that the model used for WLPMA under predicts WLs for the Key Wells. If a 20% rampdown is needed per the model to ultimately get WLs above the MT, isn't it logical to assume that a lesser rampdown could achieve comparable results when the WLs are corrected for the under prediction tendencies of the model? It didn't seem like the underprediction was accounted for, at least semiquantitatively, in the analyses. Is the report suggesting a rampdown quantity that is too aggressive?

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
TM-7	conclusions	26	6	*Conclusion*	why does the Conclusion section focus solely on the ramp-down scenarios? Per Section 1, *the BOY Study evaluates groundwater conditions under three potential future production scenarios: (1) continued production at 40,000 acre-feet per year (AFY), the initial Operating Yield defined in the Judgment, (2) implementation of two groundwater in-lieu projects evaluated in the Basin Optimization Plan (BOP), and (3) a ramp-down scenario to determine the BOY in the event that the projects are not implemented.. .* Discussions of all three scenarios should be included in the Conclusions. Isn't the major take-away message that if the in-lieu delivery projects can be implemented promptly, then ramp-downs are not likely to be needed? Don't bury (or omit) the lead message.
TM-8	conclusions	26	6		It would be useful to the reader to have a summary table for each of the scenarios evaluated in the report. There are lots of numbers in the document. A summary in the conclusions makes it easier to compare the scenario outcomes. Suggest a table (with supporting text) that lists for each key well when each scenario brings water levels above the MT, is the MT achieved before 2040, water level trends (up or down), do water level trends suggest that MO will be met, etc.
TM-9	possible typo	7	3.1.1	*The future scenarios developed for the BOY Study simulate groundwater conditions in the Basin over the 47-year...*	reference to a "37-year modeled period" for trends in section 3.4.2.2 – this appears to be a typo, since the scenarios run 47 years
TM-10	timing of project implementation	8	3.1.3	*Table 3-1*	Table 3-1 indicates Time Period for Implementation as "Water Year 2027", but does not specifically identify when in WY2027 the water deliveries were initiated in the model
TM-11	timing of project implementation	8	3.1.3	*...the in-lieu project deliveries are not currently occurring. If implementation of the in-lieu project is delayed for multiple years, the modeled impacts of the project on groundwater levels in this BOY Study may 'overestimate the impact of this project...*	since these projects depend on agencies outside the Watermaster's direct control, there is uncertainty in their yield and timing. The study already notes no agreements are signed yet. It might be prudent to recommend contingency planning (e.g., if by year X the projects are behind schedule, implement phased rampdowns to compensate). This is hinted in Section 4 (if Project 2 is not fully implemented, consider a Rampdown), which is a good inclusion.
TM-12	SGMA compliance	9	3.1.4	*...in the WLPMA, the long-term groundwater production rate was determined to be potentially sustainable if groundwater elevations remained stable over the future model period, such that the ending groundwater level was equal to or higher than the starting groundwater elevation."*	an additional criterion is used: a pumping rate is considered potentially sustainable if groundwater levels **stabilize or rise over the future period**, even if they start (and end) below the MT. It's important to highlight the risk of allowing "stable but below-threshold" conditions, even temporarily, technically means undesirable results (as defined in the GSP) persist until those levels rise above MT. The study implies that with projects or rampdown, those key wells might not reach MT by 2040 but could soon after.

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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
TM-13	Baseline Scenario extractions	10	3.2.2	*...the selected approach, with which the TAC concurred, was to distribute the Annual Allocation based on the reported pumping and MWC deliveries for DWR water year 2024...*	The distribution method ensures every drop of the 40,000 AFY is assigned to a specific well or MWC, preserving the water balance, and does so in a way that reflects current (2024) usage patterns. The model does not account for underutilization (which has occurred in the past couple of years) which results in carryover amounts that can have an as yet unmodeled impact on future water levels. The baseline scenario is logical, however, it would be useful to be more forthcoming with the shortcomings of the scenario assumptions as predictors of future conditions.
TM-14	modeling assumptions	10	3.2.2		The modeling approach could be more robust by accounting for the carryover amounts earned in the wet periods and their use in subsequent dry periods. For example, assume carryover was earned in "above normal wet years" at a rate consistent with GW use in recent wet years. The carryover would be used in dry years when irrigated water demand is greater than the average. It is not clear how this would impact efforts to bring GW levels above the MT, but it would offer a more likely scenario for how the basin would operate.
TM-15	estimated sustainable yield uncertainty	12	3.2.2.2	*Table 3-2 Estimated Sustainable Yield*	shouldn't the sustainable yield be +/- the uncertainty ? Suggest adding another column to show the possible range of the sustainable yield OR put the range in paretheses in the same cell as the Estimated Sustainable Yield. For example, WLPMA Estimated Sustainable Yield is 11,400 (10,200-12,600), ELPMA + EG is 19,230 (16,930-21,530). LPVB sustainable yield is 30,630 (27,137-34,130).
TM-16	in lieu amounts	17	3.2.2.2	*...the LAS groundwater production was reduced by 1,760 AFY to simulate implementation of the in-lieu surface water delivery project to Zone MWC and VCWWD 19."*	Is the in lieu delivery amount being overestimated because the WLPMA model under predicts WL responses to imported water? Could a lesser in lieu amount achieve the same result if the model's WLs were adjusted to account for the underprediction?
TM-17	possible typo	15	3.3.1	*The resulting groundwater production rates were 16,656 AFY in the WLPMA and 16,420 AFY in the ELPMA (Table 3-3).*	Table 3-3 shows ELPMA pumping as 19,179 AFY in the Projects scenario, but 16,420 AFY in text. Looks like the text should be changed to 19,179 AFY which is consistent with modeled ~7% reduction. Similar for WLPMA - Table 3-3 shows 16,657 AFY, text says 16,656 AFY– likely typo.
TM-18	estimated sustainable yield uncertainty	16	3.3.1	*Table 3-3*	how is model uncertainty accounted for in this table?

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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
TM-19	SGMA compliance	16	3.3.2	*...if the initial groundwater elevation can be raised at this well, ongoing production at the rates simulated in the Projects Scenario will maintain the groundwater elevation in the future.*	WLPMA meets the softer criterion (stable levels at the problematic well). From a hydrogeologic standpoint, the in-lieu deliveries clearly mitigate drawdown in the targeted areas. It just flags one gap - one location still below threshold, requiring either trust in model correction of flow across Somis fault or additional management.
TM-20	SGMA compliance	19	3.4.1.2	*In the WLPMA, simulated groundwater elevations remained above the minimum threshold groundwater elevation at two of three Key Wells...*	The 20% reduction predicted water levels would remain below the MT in one Key Well. So, a 20% reduction is not actually consistent with SGMA goals of avoiding undesirable results. It is unknown if this "modified approach" to SGMA compliance is acceptable to DWR. Report states that model response is "...dampened relative to historical observations" therefore, groundwater elevations in this well are expected to be above the MT. What happens to the groundwater elevations in the other key wells if we account for the "dampened response"? Are we suggesting that a rampdown of some amount less that 20% is adequate if the dampened response is accounted for? If so, why not present the model results for that lower value? Does the use of a 20% rampdown put unnecessarily stringent cuts on ELPMA & Epworth?
TM-21	rampdowns	20	3.4.2.1	*...it should be noted that simulated groundwater elevations exhibited a declining trend over the 37-year modeled period."*	under the 11% cut, ELPMA is still *mildly overdrafting* , which is consistent with the note that water levels in ELPMA show a declining trend over the 47-year simulation (albeit all above MT). Is the declining trend over the SGMA compliance timeframe consistent with SGMA compliance requirements?
TM-22	add PVB, LPV, ELP, WMID to list of abbreviations	iii			
TM-23	Somis fault/model boundaries				The WLPMA model has assigned properties to the Somis fault that are inconsistent with current hydrogeologic understanding. Before the next BOYS or Periodic Evaluation update, it is recommended that the model be updated to reflect our hydrogeologic conceptual model. This allows the forward forecasts to be used without having to consider the "dampened results" correction factor.
BA-1	Setting the tone of the report (that the report presents good news)	v	Executive Summary		Overall, the BOYS study and report present good news that rampdown won't be necessary if the two projects proceed in a timely fashion. Suggest revising the Executive Summary to highlight this and support better understanding of terms in the Judgment, such Operating Yield, etc. Please see accompanying Word file that presents my suggested revisions.

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
BA-2	Conforming main text to suggested revised Executive Summary	v	Executive Summary		Left to Dudek to revise main text to hit the highlights noted in the suggested revised Executive Summary
BA-3	Delete unneeded comma	3	1.3	*Undesirable results were defined in the GSP for the three management areas of the Basin: the East Las Posas Management Area (ELPMA), the Epworth Gravels Management Area, and the West Las Posas Management Area (WLPMA) , (FCGMA 2019).*	Delete identified comma (in red)
BA-4	Use of modeled heads for MT metric versus head changes (i.e., the "shift" used in hydrographs)	3	1.3	*Because the MTs are the metric by which groundwater conditions in the Basin are determined to be sustainable, the BOY Study compares simulated future groundwater elevations in the Basin to the MTs at the Key Wells in the Basin. Future groundwater elevations were simulated using the two numerical groundwater models that cover the three management areas of the Basin. Simulated production rates that result in long-term stability of the groundwater elevations at levels above the MTs are considered sustainable. The Basin Optimization Yield is the production rate, with implementation of the Basin Optimization Projects that can be reasonably implemented by 2040 and maintains groundwater elevations above the MTs.*	Somewhere in the main text it should be stated that simulated relative head changes are used to compare to MTs for groundwater elevations. This is noted as a "shift" in hydrographs, but should be more specific. Models are better at predicting head changes than they are at predicting actual heads. This paragraph might be a good place to do that.
BA-5	Inconsistent use of acronyms	5	2	*Coastal Plain Model: a version of the Ventura Regional Groundwater Flow Model (VRGFM) MODFLOW numerical model developed and maintained by UWCD, which covers the entirety of the WLPMA, Oxnard Subbasin, PVB, and Mound Subbasin (UWCD 2018).*	Ventura Regional Groundwater Flow Model is sometimes abbreviated as VRGFM and sometimes as VRGWFM. Be consistent.
BA-6	Delete unneeded word	5	2	*Therefore, the only change FCGMA made to the model for the First Periodic Evaluation was to extend the simulation time period through the end of water year 2022 (i.e., September 30, 2022) (FCGMA 2024*	Delete the word "time" (in red)
BA-7	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably	6	2.2	*Although the Coastal Plain Model included improved hydrogeologic conceptual model data in several groundwater basins, the update also included a revision to the model boundary at the eastern edge of the WLPMA.*	Revise to: Although the Coastal Plain Model included improved hydrogeologic conceptual model data in several groundwater basins, the update also included a revision to the model boundary condition at the eastern edge of the WLPMA.
BA-8	Somis Fault is observed to be a flow barrier; should emphasize that this is an observation and not a model phenomenon	6	2.2	*In previous versions of the model, the boundary between the ELPMA and WLPMA was represented using a no-flow boundary condition, which is consistent with the Somis Fault acting as a barrier to groundwater flow between the two management areas (FCGMA 2019).*	Revise to: In previous versions of the model, the boundary between the ELPMA and WLPMA was represented using a no-flow boundary condition, which is consistent with the observation that the Somis Fault acts as a barrier to groundwater flow between the two management areas (FCGMA 2019).

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
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Comment ID	Topic	Page Number	Section ID	Quoted Text	Comment
BA-9	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably	6	2.2	*In contrast, the model boundary in the version of the model used in the First Periodic Evaluation and in this BOY Study is a general head boundary condition ...*	Insert the word "condition" as indicated in red. THERE ARE also two other instances in the next paragraph to insert the word "condition." One is noted in next comment along with suggested change in wording.
BA-10	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably, and clarification	6	2.2	*...simulated groundwater elevations do not rise as rapidly in response to reduced groundwater production as they would if the model boundary were a no-flow boundary.*	Revise to: ...simulated groundwater elevations do not rise as rapidly in response to reduced groundwater production as they would if the model boundary condition had not been changed from a no-flow boundary to a general head boundary. ~~they would if the model boundary~~
BA-11	Missing or extra words	6	2.2	*This rise is similar to that measured in the historical data between 1994 and 2006, when CMWD was delivering imported water in-lieu groundwater delivery to WLPMA*	Revise to: This rise is similar to that measured in the historical data between 1994 and 2006, when CMWD was delivering imported water in lieu of local groundwater pumping to the ~~r in-lieu groundwater delivery to~~ WLPMA
BA-12	Model "boundary" and modeled "boundary condition" are not the same thing and cannot be used interchangeably, and clarification	7	2.2	*The comparison of the observed historical change in groundwater elevation to the modeled change in groundwater elevation indicates that the model boundary change has introduced additional uncertainty into the predictive capabilities of the model in this region. Future work should be conducted to reduce this uncertainty by recalibrating the revised model using a no-flow boundary to better represent the hydrogeologic conceptual model of this area.*	Revise to: The comparison of the observed historical change in groundwater elevation to the modeled change in groundwater elevation indicates that UWCD's change to the model boundary condition between the WLPMA and ELPMA ~~model boundary change~~ has introduced errors and additional uncertainty into the predictive capabilities of the model in this region. Future work should be conducted to fix this error and reduce this uncertainty by recalibrating the revised model using a no-flow boundary condition to ~~better~~ represent the hydrogeologic conceptual model of this area.
BA-13	Grammer	7	2.2	*Watermaster and TAC agreed that, while the change in the model boundary is not consistent with the hydrogeologic conceptual model, groundwater management decisions will be based on observed water levels, rather than model simulation .*	Change to "simulations"
BA-14	Run-on sentence	7	2.2	*Because the UWCD model is capable of simulating groundwater elevations in the eastern portion of the WLPMA that rise above the minimum threshold prior to 2040 and remain above the minimum threshold from 2040 to 2070, use of the UWCD model files developed for the Periodic Evaluation remains the best available option to evaluate the BOY and complete this first BOY study prior to the beginning of the 2027 water year (October 1 2026 – September 30, 2027) (FCGMA 2025b).*	Change to: The UWCD model is capable of simulating groundwater elevations in the eastern portion of the WLPMA that rise above the minimum threshold prior to 2040 and remain above the minimum threshold from 2040 to 2070. Thus, the use of the UWCD model files developed for the Periodic Evaluation remains the best available option to evaluate the BOY and complete this first BOY study prior to the beginning of the 2027 water year (October 1, 2026 – September 30, 2027) (FCGMA 2025b)

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BA-15	Needs additional clarification	8	3.1.3	*The Arroyo Simi–Las Posas Water Acquisition project would involve the purchase or lease of recycled water from the City of Simi Valley to continue discharging the water from its shallow dewatering wells and/or the Simi Valley Water Quality Control Plant to the Arroyo Simi for downstream recharge to the Basin (FCGMA 2025a).*	Need a statement as to why this water can't continue without purchasing or leasing.
BA-16	Needs additional clarification	10	3.1.4	*However, the updated Coastal Plain Model did not reproduce the same magnitude of groundwater elevation response as was observed historically (Figure 2-1). Therefore, project implementation and adjustment through groundwater elevation monitoring are expected to bring groundwater elevations back above the MT. Once the groundwater elevations are higher than the MT, a long-term production rate that results in stable groundwater elevations that remain above the MT is sufficient to avoid undesirable results.*	Revise to: However, the updated Coastal Plain Model did not reproduce the same magnitude of groundwater elevation response as was observed historically (Figure 2-1). Therefore, project implementation and adjustment of in-lieu delivery rates driven by ~~through~~ groundwater elevation monitoring are expected to bring groundwater elevations back above the MT. Once the groundwater elevations are higher than the MT, a long-term production rate can be determined that results in stable groundwater elevations that remain above the MT is sufficient to avoid undesirable results.
BA-17	Needs additional clarification	10	3.1.4	*Based on these results, a simulated groundwater flux of 800 AFY or less across the boundary between Oxnard Subbasin and the WLPMA was considered sustainable in this BOY Study.*	Which direction? Should state.
BA-18	Grammer	10	3.2.1	*Additionally, some agricultural properties that historically reported extractions did not receive allocation.*	Insert the word "an": Additionally, some agricultural properties that historically reported extractions did not receive an allocation.
BA-19	Terminology	10	3.2.1	*Because the BOY Study is intended to assess the ability of projects to maintain the BOY at as close to 40,000 AFY as possible, and to evaluate the need for a Rampdown relative to the Basin Optimization Yield, this BOY Study used the Water Year 2024 Annual Allocations published by the Watermaster as the basis for extractions in the numerical groundwater models.*	Revise to: Because the 2025 BOY Study is intended to assess the ability of projects to maintain the BOY at as close to 40,000 AFY as possible, and to evaluate the need for a Rampdown relative to the Initial Operating ~~Basin Optimization~~ Yield, this BOY Study used the Water Year 2024 Annual Allocations published by the Watermaster as the basis for extractions in the numerical groundwater models
BA-20	Wording	12	3.2.2.2	*The differences between the Baseline Scenario production rate and the average groundwater production from water years 2016 to 2024 are shown in Figure 3-4.*	Should state explicitly if these differences are increases or decreases, here and on Figure 3-4. e.g., text could say increases and decreases are shown on Figure 3-4. Figure legend could indicate which ranges equate to increases and which to decreases.
BA-21	Clarification	13	3.2.3.1	*If, during water year 2024, these Water Right Holders pumped less than average from the Epworth Gravels Management Area wells, the baseline pumping distribution in the BOY Study Baseline Scenario would extrapolate this single year of reduced pumping over the entire 47-year model time period. The result is continuously rising simulated groundwater elevations that do not reflect the historical production patterns from the aquifer.*	There should be some kind of text explaining that this is unavoidable and HOW THIS WILL be accounted for in the Operating Yield/

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BA-22	Clarification	13	3.2.3.1	*Groundwater production at the Baseline Scenario rates was determined not to be sustainable in the ELPMA because simulated groundwater elevations at five Key Wells fell below the minimum threshold groundwater during the 47-year model run (Figure 3-6).*	Were these simulated hydrographs also shifted, as in Figure 3-5. If so there should be a note on the figure. Also, I think you need to say somewhere in the main text that you have more faith in simulated groundwater changes, than simply the simulated elevations.
BA-23	Clarification	15	3.3.1	*As discussed in Section 3.1.3, the Projects Scenario incorporated 1,760 AFY of surface water deliveries to offset groundwater production from six wells in the eastern WLPMA, and 1,380 AFY of surface water deliveries to offset production from three wells in the ELPMA.*	Which six wells? Which three wells?
BA-24	Interpretation of the Judgment	18	3.4.1.1	*The total extraction rate for the Basin-wide Rampdown Scenario was 32,000 AFY (Table 3-3).*	However, the Rampdown should be the Initial Operating Yield minus the BOY, or 40,000 acre-feet per year (AFY) minus 36,860 AFY. Accordingly, the Rampdown should be 3,140 AF, or approximately 224 AFY over the 14-year period between now and 2040. Further, my understanding is that the Judgment does not contemplate a no-project Rampdown or Rampdown Rate.
BA-25	Clarification	24	5.1	*Consistent with the Judgment, this initial BOY Study calculates a Rampdown Rate for a Basin-wide reduction in groundwater pumping if the projects are not implemented. The Rampdown Rate is the annual reduction in groundwater necessary to have the Operating Yield equal the Sustainable Yield by the fall of 2039 (Judgment §§1.89 and 4.10.1.4).*	Insert the word "production" as indicated in red: Consistent with the Judgment, this initial BOY Study calculates a Rampdown Rate for a Basin-wide reduction in groundwater pumping if the projects are not implemented. The Rampdown Rate is the annual reduction in groundwater production necessary to have the Operating Yield equal the Sustainable Yield by the fall of 2039 (Judgment §§1.89 and 4.10.1.4).
BA-26	Interpretation of the Judgment	24	5.1		As noted above, the Rampdown should be the Initial Operating Yield minus the BOY, or 40,000 acre-feet per year (AFY) minus 36,860 AFY. Accordingly, the Rampdown should be 3,140 AF, or approximately 224 AFY over the 14-year period between now and 2040. Further, my understanding is that the Judgment does not contemplate a no-project Rampdown or Rampdown Rate.
BA-27	Clarification	26	6		Suggest revising conclusions based on the suggested revisions to the Executive Summary. Please see accompanying Word file that presents my suggested revisions to the Conclusions section.
CT-1	Error	3	1.3	*The Rampdown was calculated over a 13-year period…*	The rampdown period is identified as 14 years in other sections.
CT-2	Missing footnote/endnote	3	1.3	*…(DWR water year 2027 through water year 2039 [1])…*	There is no footnote or endnote corresponding to the note identified in the second to last paragraph on page 3.
CT-3	missplaced word	13	3.2.3.1	*The simulated groundwater elevation declines in the northern ELPMA are consistent with previous model scenarios evaluated in for the GSP …*	Remove the unnecessary *for* in the last sentence of the last paragraph on the page.
CT-4	Inconsistent values	15-16	3.3.1	*The resulting groundwater production rates were 16,656 AFY in the WLPMA and 16,420 AFY in the ElPMA (Table 3-3)*	The values referenced in this text don't match those in Table 3-3

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CT-5	Rampdown and water budget	19	3.4.1.3	*…inflows exceed outflows by approximately 500 AFY in the Basin-wide Rampdown Scenario.*	Could the rampdown volume and rate for the WLPMA have been reduced if the simulation of pumping reduction resulted in a closer correlation of inflow and outflow? Was the difference between inflow and outflow necessary to recover from historical water level declines.
CT-6	Inconsistent values	20	3.4.2.2	*…however, it should be note that simulated groundwater elevations exhibited a declining trend over the 37-year model period.*	In other sections of the report the model period is identified as 47 years.
CT-7	Add comparison / compilation tables	22	4		Consider adding a table or tables in section 4 that summarize the Baseline, BOY Project, Basin-wide Rampdown, Differential Rampdown, and Sustainable Yield estimates for each management area to assist the reader in understanding the differences between the scenarios.
CT-8	Expand explanation	24	5.1		Consider expanding the explanation of the rampdown period. As presented lay readers may not understand how the period from the fall of 2026 through the fall of 2039 equates to 14 years and is the appropriate denominator for calculating the rampdown period.
CT-9	Rampdown period and sustainable conditions	24-25	5		It is not clear in Section 5 how water levels, which are the metric the BOY Study identifies will be used for assessing sustainability, are expected to react to the rampdown period. The model scenarios appear to indicate that over a 47 year period the annual groundwater production volumes pumped in the rampdown scenarios will achieve sustainability. However, the BOY Study does not appear to assess how long after reaching the rampdown pumping rate it will take for water levels to rise to the thresholds identified as sustainable. One assumes that prolonged pumping at rates in excess of the rampdown rate will result in water levels below the minimum thresholds in representative monitoring wells and it is not clear that one year of pumping at the rampdown rate at the end of the 14 year rampdown period will be sufficient to facilitate water level recovery.