February 11, 2025

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 – Draft Las Posas Valley Basin Groundwater Sustainability Plan 2025 Annual Report Covering Water Year 2024

The Las Posas Valley Watermaster Technical Advisory Committee (TAC) provides this Recommendation Report regarding the Draft Las Posas Valley Basin Groundwater Sustainability Plan 2025 Annual Report Covering Water Year 2024 in response to the Las Posas Valley Basin Watermaster (Watermaster) committee consultation request. Annual reporting of groundwater conditions and progress toward sustainability are required by the Sustainable Groundwater Management Act (SGMA) and Santa Barbara Superior Court judgment in Las Posas Valley Water Rights Coalition, et al., v. Fox Canyon Groundwater Management Agency (Judgment).

The request for consultation on the Draft Las Posas Valley (LPV) Basin Groundwater Sustainability Plan (GSP) 2025 Annual Report Covering Water Year 2024 (WY 2024 Annual Report) was submitted to the TAC January 15, 2025. The TAC discussed the WY Annual Report in regular TAC meetings on January 21, 2025 and February 4, 2025. TAC comments on the WY 2024 Annual Report were provided to the TAC Administrator by each TAC member in tabular formats and are attached to this Recommendation Report. These specific comments have been incorporated into the recommendations presented below and will be provided to the Watermaster in the original Microsoft Excel format to aid in tracking comment and recommendation responses.

TAC RECOMMENDATIONS

1. RECOMMENDATION 1: CLARIFY THE RELATIONSHIP BETWEEN WATER LEVELS IN SPECIFIC AREAS OF THE BASIN AND SUSTAINABLE YIELD

Sustainable yield is a basin-wide, long-term metric for assessing overall groundwater basin conditions. There are two locations in the text where ongoing water level declines in the eastern part of the West Las Posas Management Area (WLPMPA) and northern East Las Posas Management Area (ELPMA) are attributed to basin-wide production in excess of sustainable yield. It is overly simplistic to say that these localized declines are the result of

basin-wide exceedance of sustainable yield. There must be a local reason that water levels in these specific areas are declining when they are relatively stable in other parts of the Las Posas Valley Basin (Basin).

1.1 Recommendations:

- Consider revising these specific statements regarding local water level declines and sustainable yield at the end of the Executive Summary and in section 3.1.1.
- Edits should at a minimum indicate that local pumping in excess of recharge is the likely cause of water level declines.
- Consider also indicating that additional information and analysis may be necessary to define the affected areas and identify projects and management actions to address the ongoing declines. Additional information could include more consistent groundwater elevation monitoring at increased geographic density and analyses could include local pumping and water level change rates.

1.2 Technical Rationale for Recommendation:

Stating that Basin-wide pumping in excess of sustainable yield is responsible for local groundwater elevation declines simultaneously implies that all pumping in the Basin affects groundwater elevations in these specific locations and minimizes the effect of local conditions on those declining elevations. Conceptually, these two areas are somewhat hydraulicly isolated and pumping in them has historically exceeded local recharge and flow from other portions of the Basin (local subsurface inflow). Because local pumping exceeds the supply of water to these areas of the Basin, water levels have been and continue to decline. This has occurred during a period when pumping Basin-wide commonly exceeds the total sustainable yield of the Basin. However, it is possible that pumping Basin-wide could be reduced to below the sustainable yield while local pumping in the eastern WLPMA and northern ELPMA continues to exceed combined local recharge and subsurface inflow. In this case, water levels in these two areas would continue to decline even though Basin-wide pumping was below total sustainable yield.

The TAC hopes that contextualizing the hydrogeologic and hydrologic conditions related to the groundwater elevation declines in the eastern WLPMA and northern ELPMA will help the Watermaster and stakeholders continue to advance projects and management actions targeted at and designed to maximize benefit to these areas.

1.3 Summary of Facts in Support of Recommendation:

- Water levels have continued to decline in the eastern WLPMA and northern ELPMA.
- Pumping in the Basin has commonly exceeded the Basin-wide sustainable yield.
- Recharge and subsurface inflow to the eastern WLPMA and northern ELPMA are limited by hydrogeologic structures in the Basin.
- Reducing total pumping in the Basin may not sufficiently address the local water budget imbalance in the eastern WLPMA and northern ELPMA.

2. RECOMMENDATION 2: ADD DISCUSSION AND COMPARISON OF THE REGRESSION CHANGE IN STORAGE ESTIMATION METHOD AND THE MODEL-BASED METHOD

The TAC is interested in seeing a comparison of the results of the change in storage methods referenced in the Annual Report. In the discussion of change in storage, the Annual Report indicates that previously presented change in storage estimates for the period from 2015 through 2022 were updated following extensions of the models for both the WLPMA and ELPMA completed as part of the 2025 Periodic Evaluation of the LPV GSP. However, the Annual Report does not present the difference these change in storage volume updates represent compared to those reported previously. An accounting of the difference between the changes in storage presented in previous annual reports and those in the WY Annual Report should be included along with a discussion of the differences between the model-based and regression-based methods for estimating change in storage.

2.1 Recommendations:

- Include comparison of model-based change in storage estimates presented in the WY 2024 Annual Report to those for the same years in previous annual reports derived from the regression-based method.
- Discuss the differences in change in storage estimates between these two methods.
- Consider completing a thorough assessment of the differences in outcome of these two methods for estimating changes in storage and presenting it in future annual reports
- Consider developing a plan for how future model updates and resulting differences in change in storage estimates presented in annual reports and other publications will be retroactively adjusted. This plan should be included in future annual reports (and the WY 2024 Annual Report, if possible) and summarized or referenced in other documents that include change in storage estimates.
- Standardize the years for which changes in storage are reported for all management areas. Table 2-7a shows change in storage for 2019 through 2024 for the Lower Aquifer System of the WLPMA while Table 2-7b shows 2016 through 2024 changes in storage for all ELPMA and Epworth Gravels Management Area aquifers.

2.2 Technical Rationale for Recommendation:

Differences in historical change in storage estimates between annual reports and/or other published documents may lead to confusion on the part of stakeholders and regulators. While the WY 2024 Annual Report acknowledges that recent historical change in storage estimates presented in past annual reports were updated in the WY 2024 Annual Report, the differences in these values are not presented. Assuming the difference between the previously reported and current change in storage values is relatively small and does not include sign changes, inclusion of transparent presentation of the differences should reduce confusion.

TAC members noted that the changes in storage presented in the WY 2024 Annual Report do show the linear regression method for estimating storage change is potentially

underestimating storage change. Table 2-7b shows Fox Canyon Aquifer model-based changes in storage in the ELPMA for above normal years 2019 and 2020 of 5,962 and -393 acre-feet per year (AFY), respectively. The regression-based changes in storage for wet years 2023 and 2024 in Table 2-7b are reported at 6,030 and 5,271 AFY for the wet years of 2023 and 2024, respectively. These changes in storage for wet years are only slightly greater than the modeled maximum in recent above normal years, implying that the linear regression method is underestimating storage change.

2.3 Summary of Facts in Support of Recommendation:

- The WY 2024 Annual Report indicates that the recent model extensions resulted in 'updates' in change in storage estimates presented in previous annual reports.
- There is no presentation of the magnitude or sign differences these changes represent.
- The TAC is not aware of a published assessment of the differences in change in storage estimates between the model-based and regression-based methods for estimating storage change.

3. RECOMMENDATION 3: PROVIDE AN UPDATE ON WATER YEAR 2024 GROUNDWATER PRODUCTION MISSING FROM THE DRAFT ANNUAL REPORT

The draft WY 2024 Annual Report was submitted to the TAC for review without groundwater production records for the water year. Not having these data makes assessing groundwater sustainability conditions in the Basin challenging. We understand there were difficulties compiling groundwater use records in the first year of implementation of a new data collection system. However, comparison of groundwater use over time in to monitored water level conditions and estimated changes in storage is an important function of GSP annual reporting. The TAC anticipated the Watermaster would provide these missing data during the WY 2024 Annual Report review period, but they have not been made available to date.

3.1 Recommendations:

- Provide groundwater use data to the TAC for review as soon as possible.
- Review and revise groundwater use reporting and data processing procedures so that these important data are available for inclusion in future draft annual reports prior to committee review.

3.2 Technical Rationale for Recommendation:

Groundwater production information for the Basin and each management area is an important component of assessing sustainability. The ability of the TAC to provide thorough technical review of documents relies on those documents being complete when submitted.

3.3 Summary of Facts in Support of Recommendation:

- The WY 2024 groundwater production data for the Basin were not available for inclusion in the draft WY 2024 Annual Report and have not been provided to the TAC separately as of the date of publication of this report.

- SGMA and the Judgement require groundwater use data to be collected and presented in annual reports.

4. RECOMMENDATION 4: CONTINUE WORKING TO CONSISTENTLY COLLECT WATER LEVEL AND OTHER DATA FROM THE BASIN MONITORING NETWORK

The TAC noted that there are monitoring wells designated as Key Wells in the GSP for which sustainable management criteria (SMCs) have been established that are inconsistently monitored. The TAC acknowledges that these problems were identified and commented on in the TAC review of the first GSP periodic evaluation for the Basin and that the period reflected in the WY 2024 Annual Report is the same as that discussed in the periodic evaluation. However, the TAC also notes that previous annual reports have included statements recognizing these deficiencies and the Watermaster's efforts to address them when first discussing the missing data. The WY 2024 Annual Report does not present a similar statement or commitment to addressing the problem until discussion of the periodic evaluation in section 3.

4.1 Recommendations:

Continue to include statements regarding Watermaster efforts to address groundwater monitoring consistency problems when presenting monitoring results.

4.2 Technical Rationale for Recommendation:

Inconsistent groundwater monitoring in basins attempting to achieve groundwater sustainability makes assessing sustainability efforts challenging and can lead to uncertainty. Readers of the WY 2024 Annual Report may focus on specific areas of the report and could miss statements regarding plans to address problems in data collection if they are not included in the same section of the report where the data are discussed.

4.3 Summary of Facts in Support of Recommendation:

- Section 2 of the WY 2024 Annual Report indicates that some important data were not collected during the period assessed in the report.
- Discussion of efforts to address data collection inconsistencies were not included in section 2 as in previous annual reports.

5. RECOMMENDATION 5: CONSIDER ADDING TO THE DISCUSSION AND EXPLANATION OF GROUNDWATER ELEVATION CONTOUR MAPS TO INCLUDE RATIONALE FOR CONTOURING DECISIONS

When reviewing the groundwater elevation contour maps and related discussion in the WY 2024 Annual Report, TAC members had questions regarding specific decisions to include and/or omit contour data for multiple aquifers and areas of the Basin. These questions included:

- Why were the values identified as not used in contouring omitted?

- How were the Shallow Alluvial aquifer contours upstream of 07G01 defined in both shallow alluvial aquifer maps (Figures 2-1 and 2-2) and also the contours downstream of 09Q08 in Figure 2-1? There do not appear to be wells with measured water levels up and downstream of these wells for generating contours.
- Why were contours not generated for the Epworth Gravels aquifer?
- Why was only a portion of the ELPMA contoured for the Upper San Pedro aquifer in fall 2023 when there were data for the WLPMA for that period and why were no contours created for this aquifer for spring 2024?
- Why is so little of the Fox Canyon aquifer contoured in Figures 2-7 and 2-8? Are all the omitted data really from the aquifer? Is there another way to better show the spatial distribution of groundwater elevations in this aquifer?
- How were the contours in the neighboring basins shown for the Fox Canyon Aquifer on Figures 2-7 and 2-8 developed? What is the assumed relationship between the Oxnard basin and the WLPMA and the Pleasant Valley basin and ELPMA, and how was this relationship used in the preparation of these contours?

5.1 Recommendations:

- Consider including additional discussion regarding groundwater elevation contouring decisions in the text to help readers understand the information presented on the maps in Figures 2-1 through 2-10.
- Consider removing groundwater elevation contours for the neighboring Oxnard and Pleasant Valley basins or explain in the text the hydraulic relationship the contours illustrate.

5.2 Technical Rationale for Recommendation:

Technical rationale for these recommendations is included in the questions above and TAC member comments BB-8, BB-9, TM-13, TM-14, CT-19, CT-20, CT-21, CT-22, CT-23, and CT-24 in the attached individual tabulated TAC comment matrix.

5.3 Summary of Facts in Support of Recommendation:

The facts related to these recommendations are included in the attached individual tabulated TAC comments.

6. RECOMMENDATION 6: CHECK WATER LEVEL DATA FOR ACCURACY

In reviewing the WY 2024 Annual Report, TAC members had questions regarding the accuracy of multiple water level data records. These questions should be reviewed alongside the related water level data records and referenced values in the text and corrected or discussed.

6.1 Recommendations:

Review the anomalous, questionable, and/or incorrect values identified in TAC member comments BB-10, BB-12, BB-13, BB-19, TM-17, TM-18, and TM-19 in the attached tabulated comment matrix.

6.2 Technical Rationale for Recommendation:

The technical rationale for the recommendation above are included above and in the attached individual tabulated TAC comments.

6.3 Summary of Facts in Support of Recommendation:

Facts related to this recommendation are included above and in the attached individual tabulated TAC comments.

7. RECOMMENDATION 7: CONSIDER REVISING GROUNDWATER ELEVATION CONTOURS TO INCLUDE SPECIFIC DATA AND BETTER EXPLAIN CONTOURING DECISIONS

In reviewing the WY 2024 Annual Report, TAC members had questions regarding the omission and inclusion of specific data for generating groundwater elevation contours of some aquifers and portions of the Basin. Individual TAC member comments in the attached tabulated comment matrix identified specific water level measurements that could have been included in contouring.

7.1 Recommendations:

Consider revising contours based on information provided in TAC member comments BB-11, BB-14, BB-15, BB-16, and BB-18 in the attached tabulated comment matrix.

7.2 Technical Rationale for Recommendation:

TAC members identified data that could have been used in contouring; rationale for this recommendation is included in the referenced TAC member comments.

7.3 Summary of Facts in Support of Recommendation:

The facts related to these recommendations are included above and in the attached individual tabulated TAC comments.

8. RECOMMENDATION 8: CONSIDER ADDING CLARIFYING TEXT AND ADDRESSING TYPOGRAPHICAL ERRORS IN SPECIFIC SECTIONS OF THE ANNUAL REPORT

TAC members identified multiple portions of the draft Water Year 2024 Annual Report that would benefit from the addition of clarification and/or correction of apparent typographical errors. The clarifications can be generally categorized into the following groups:

- New information
- Comparison of current conditions to 2015
- Presentation of streamflow data
- General text clarification
- Headings not matching text
- Map or graph title, labels, or legend edits

Recommendations relative to each category are summarized below and presented in the tabulated TAC comments attached to this Recommendation Report.

8.1 Recommendations:

- Consider adding text related to the following new or additional information:
    - On page 2-4 in section 2.1.1.4 well 03N19W31D07S is identified as having shown groundwater elevation increases between fall 2022 and fall 2023. The reason for this change and difference to other local conditions may reflect the fact that Calleguas Municipal Water District (CMWD) was pumping their aquifer storage recovery (ASR) wellfield during fall 2022 and then switched to injection from February through September 2023.
    - The list of significant new information in section 3.1.2 (page 3-1) should be expanded to note the inclusion of data from the CMWD three multi-level groundwater monitoring wells, which provided new stratigraphic data for the hydrostratigraphic model, characterization of vertical gradients, and expansion of the groundwater level monitoring network.
- Consider adding explanation for why current and recent conditions are compared to conditions in 2015. Readers unfamiliar with SGMA may not know the significance of 2015 in the context of sustainable groundwater management policy and may be confused.
- Consider adding additional discussion of streamflow conditions, specifically:
    - The text in section 1.2.2 and Table 1-1 discuss and show average daily streamflow values, which are biased by peak storm flows. Median values may be more informative. Consider showing and/or discussing median daily streamflow values in addition to the average values.
    - Consider adding text in section 1.2.2 clarifying the factors that affect streamflow volumes in Arroyo Las Posas. The text states that annual streamflow reflects precipitation, but flow in 2010 and 2011 was greater than flow in 2023 and 2024, while precipitation was greater in 2023 and 2024. This implies that other factors are also affecting streamflow.
- Consider editing and/or adding text to increase the clarity of the text as suggested in TAC member comments BB-3, BB-4, BA-6, TM-6, TM-21, TM-22, CT-3, CT-7, and CT-13 in the attached individual tabulated TAC comments.
- Consider revising the heading titles for sections 2.1.1 and 2.2.2.
    - The former is titled *Groundwater Elevation Contour Maps* but the text in the section discusses elevation changes by aquifer and specific well and does not exclusively include information relating to contour maps.
    - The latter is titled Groundwater Elevation Hydrographs but deals more with comparison to sustainable management criteria than to discussions limited to hydrographs.
- Consider addressing the map and graph title, label, and/or legend changes and comments in TAC member comments BB-7, BB-22, BB-24, BA-9, BA-10, BA-11, BA-12, TM-15, TM-16, TM-20, and CT-25.

- Consider addressing the apparent typographical errors identified in TAC member comments BB-21, BB-23, BA-5, BA-13, TM-4, TM-5, CT-1, CT-12, CT-14, CT-17, and CT-18.
- Consider assessing the organization of future Annual Reports and modifying to be consistent with the October 2023 *Groundwater Sustainability Plan Implementation: A Guide to Annual Reports, Periodic Evaluations, & Plan Amendments* guidance document from the California Department of Water Resources (DWR).

8.2 Technical Rationale for Recommendation:
The technical rationales for each of these recommendations are included above and in the attached individual tabulated TAC comments.

8.3 Summary of Facts in Support of Recommendation:
The facts related to these recommendations are included above and in the attached individual tabulated TAC comments.

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 11, 2025. 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

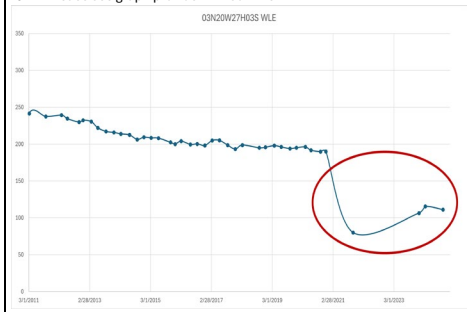
The TAC vote to present the recommendations above to the Watermaster was unanimous, as indicated above. The bases for the unanimous positions are described for each recommendation above. No minority positions were expressed by voting or non-voting TAC members.

Attachment 1

TAC Member Comments on the Draft Las Posas Valley Basin Groundwater Sustainability Plan 2025 Annual Report Covering Water Year 2024

FCGMA Board Meeting, March 26, 2025
Item 21D – TAC Recommendation Report

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Water Year 2024 Draft Annual Report

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BB-1	Bryan Bondy	Technical		i	ES	*The average precipitation in the LPV between 2016 and 2024 was 16.4 inches per year.*	What is the significance of the 2016-2024 period?
BB-2	Bryan Bondy	Technical		Global	Global	N/A	Throughout the document values of groundwater levels, etc are compared to 2015 values. It is unclear what the relevance of comparing to 2015 values is because minimum thresholds are not pegged to 2015 conditions. Such comparisons may be unnecessary and potentially misleading absent context for why they are provided.
BB-3	Bryan Bondy	Technical		1-2	1.1.2	*The LAS of the LPV Basin is hydrogeologically connected to the LAS of the Oxnard Subbasin.*	For clarify, consider revising to say: "The LAS of the ~~LPV~~ WLPMA Basin is hydrogeologically connected to the LAS of the Oxnard Subbasin."
BB-4	Bryan Bondy	Editorial		1-4	1.2.2	*There is one active streamflow gauging station in the LPV Basin.*	Statement and Figure 1-2 are in conflict. Figure 1-2 shows six "Recording Stream Gauges" in the LPVB.
BB-5	Bryan Bondy	Technical		1-4 - 1-5	1.2.2; Table 1-1	N/A	Text and Table 1-1 discuss / show data from WY 2010 - 2024. It is noted that the gauge has data prior to WY 2010. Why not showing earlier data? If cutting off older data, why WY 2010 vs. other sections that discuss data since SGMA (2015)? Seems arbitrary.
BB-6	Bryan Bondy	Technical		1-4 - 1-5	1.2.2; Table 1-1	N/A	Text and Table 1-1 discuss / show average daily values, which are biased by peak storm flows. Median values may be more informative. Consider showing/discussing medians in addition to the averages.
BB-7	Bryan Bondy	Editorial		N/A	Figures 2-1 - 2-10	Note 1 says *"Well labels consist of an italicized abbreviated State Well Number (SWN)"*	Labels on maps are not italicized.
BB-8	Bryan Bondy	Technical		N/A	Figures 2-1 - 2-10	N/A	An explanation should be provided for why values not used in contouring were omitted.
BB-9	Bryan Bondy	Editorial		N/A	Figures 2-3 & 2-4	N/A	Consider noting why there are no contours shown.
BB-10	Bryan Bondy	Technical		N/A	Section 2.1.1.3; Figures 2-5 & 2-6	N/A	There are a number of anomalous values in WLPMA. These wells should be looked at closer to reassess aquifer designation or to determine if they are suitable for monitoring.
BB-11	Bryan Bondy	Technical		N/A	Figures 2-7 & 2-8	N/A	Values for 07K02 and 08H02 should be used for contouring in ELPMA to show a more complete picture of the groundwater flow direction away from Arroyo Las Posas to the north. Similar comment in WLPMA for wells 08L03, 08G04, and 17F05.
BB-12	Bryan Bondy	Technical		N/A	Figure 2-8	N/A	Value for 27H03 is anomalous. GWL data for this well began deviating significantly from the long term trend in 2021. Please see graph provide with comment. 
BB-13	Bryan Bondy	Editorial		2-2	2.1.1.3	*In spring 2023, groundwater elevations in the Upper San Pedro Formation in the WLPMA ranged from a low of -49 ft. msl at well 02N21W15M03S to...*	-49.7 rounded is -50.
BB-14	Bryan Bondy	Technical		2-3	2.1.1.4	*Fall 2023 groundwater elevations in the FCA in the WLPMA ranged from a low of approximately -236 ft. msl at well 02N20W06R01S (Figure 2-7), which is located in the eastern portion of the WLPMA, to a high of -33 ft. msl at well 02N20W12H01S, which is located in the central portion of the WLPMA (Figure 2-7).*	The highest value is 08L03 at 4 feet above sea level. Please also see earlier comment about omitting this value in contouring.
BB-15	Bryan Bondy	Technical		2-3	2.1.1.4	*Spring 2024 groundwater elevations in the WLPMA ranged from a low of approximately -167 ft. msl at well 02N21W13A01S to a high of approximately -25 ft. msl at well 02N20W12H01S (Figure 2-8).*	The highest value is 08G04 at 22 feet above sea level. Please also see earlier comment about omitting this value in contouring.

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Water Year 2024 Draft Annual Report

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BB-16	Bryan Bondy	Technical		2-3	2.1.1.4	*In the ELPMA, fall 2023 groundwater elevations ranged from a high of approximately 297 ft. msl at well 02N20W11B02S, which is located near Arroyo Simi-Las Posas, to a low of approximately 113 ft. msl at well 02N20W03J01S, which is in the central portion of the ELPMA (Figure 2-7).*	The highest value is 08H02 at 467 feet above sea level. Please also see earlier comment about omitting this value in contouring.
BB-17	Bryan Bondy	Technical		2-4	2.1.1.4	The one exception to this is well 03N19W31D07S, where the fall 2023 groundwater elevation was approximately 44 feet higher than fall 2022.	Consider noting that the reason for this change and why it is different from other areas is because Calleguas MWD was pumping the ASR well field during Fall 2022 and then injected a considerable volume of water between in February through September 2023.
BB-18	Bryan Bondy	Technical		2-4	2.1.1.4	Spring 2024 groundwater elevations in the ELPMA ranged from a high of approximately 303 ft. msl at well 02N20W11B02S, which is located near Arroyo Simi-Las Posas, to a low of approximately 115 ft. msl at well 03N20W27H03S, which is in the northern ELPMA (Figure 2-8).	The highest value is 08H02 at 470 feet above sea level. Please also see earlier comment about omitting this value in contouring. Reported low value at 27H03 is an anomalous value- please see earlier comment about this data from this well.
BB-19	Bryan Bondy	Technical		2-7	2.1.2.1	*Spring 2024 groundwater elevations were above the measurable objective groundwater elevations at two (02N20W08F01S and 02N21W12H01S) of the three of the key wells measured in the WLPMA (Table 2-1; Figure 2-11).*	Per Table 2-1, 02N20W08F01S was below its MO.
BB-20	Bryan Bondy	Editorial		2-14	2.5	*Total available water is reported in Table 2-5 by water year.*	This sentence should reference Table 2-6, not 2-5.
BB-21	Bryan Bondy	Editorial		N/A	Figures 2-11 through 2-13	N/A	Solid blue circle is not explained in legends of these figures. Open blue circle is explained in legend of Figure 2-11, but not the others. Use of an open circle to indicate no measurement is misleading because it looks like a data point that does not really exist. Consider removing and just making a note about no measurement.
BB-22	Bryan Bondy	Editorial		N/A	Figures 2-11 through 2-13	*Note: 2025 Interim milestone groundwater elevations are not established for wells where 2015 groundwater elevations were higher than the established minimum thresholds*	This should read" 'Note: 2025 Interim milestone groundwater elevations are not established for wells where 2015 groundwater elevations were higher than the established ~~minimum thresholds~~ measurable objectives."
BB-23	Bryan Bondy	Editorial		N/A	Figures 2-12b	N/A	There is a strange font on labels of some graphs.
BB-24	Bryan Bondy	Technical		3-1	3.1.2	N/A	The list of significant new information should be expanded to note the inclusion of data from Calleguas' three multi-level groundwater monitoring wells, which provided new stratigraphic data for the hydrostratigraphic model. characterization of vertical gradients, and expansion of the groundwater level monitoring network.
BA-1	Bob Abrams	General Technical	Sustainable yield	ii	Final sentence	*"These ongoing groundwater elevation declines in eastern WLPMA and northern ELPMA indicate that groundwater production from the LPV Basin exceeds the sustainable yield."*	This is an over-simplification. Sustainable yield is exceeded these two areas, but other parts of the Basin are doing better. Add "*in these areas* " to the end of this sentence? It would also be worth noting what management actions are being implemented to mitigate the over-production in these areas because that is the obvious next question for the local Groundwater Management Agency. Even if the management action is not finalized yet.
BA-2	Bob Abrams	General Technical	San Pedro GW elevations WLPMA	2-2	2.1.1.3	*"in western WLPMA and 3 to 15 feet in central WLPMA".*	A discussion of groundwater elevations in the San Pedro Formation in eastern WLPMA conspicuous by its absence. If this is because there are no SP Formation wells in eastern WLPMA, then say this is a data gap.
BA-3	Bob Abrams	Technical	GW Elevations in GCA	2-4	2.1.1.5	*"none were measured in fall 2023", "Well 02N21W22G01S was not measured in spring 2023" , "Spring 2024 groundwater elevations were not measured in either of the two wells"*	Need to explain why there are no measurements in these key wells in key aquifers. The previous 2023 WY's report pp. 2-15 noted that "The FCGMA, as part of their GSP implementation activities, continues to evaluate opportunities to install dedicated monitoring wells and improve access/coordination with local operators to reduce these uncertainties and data gaps." Unless there are good reasons, it looks like this management action hasn't happened.
BA-4	Bob Abrams	Technical	Pumping Data	2-9	Table 2.2 and 2.3 and Table 2.6	*Footnotes in WY2023 data*	Disappointing that groundwater production has not been updated since March 2024 report was issued.
BA-5	Bob Abrams	Editorial	typo	2-14	2.5	*"Total available water is reported in Table 2-5 by water year"*	Table 2-6?
BA-6	Bob Abrams	Editorial	Acronym	2-14	2.5	*"AMI-estimated extractions"*	Spell out AMI
BA-7	Bob Abrams	Technical	Pumping Data	2-14	Table 2.6	*Footnotes in WY2023 data*	Disappointing that groundwater production has not been updated since March 2024 report was issued.
BA-8	Bob Abrams	Technical	Pumping Data	3-3	3.2	*"Collected groundwater use and extraction data to inform basin management."*	Incomplete Tables 2.2, 2.3 and 2.6 would suggest otherwise
BA-9	Bob Abrams	Technical	Groundwater contours		Figure 2-3 and Figure 2-4	*"Groundwater Elevation Contours in the Epworth Gravels Aquifer"*	Better title would be "Groundwater Elevations in the Epworth Gravels Aquifer" because there are no contours
BA-10	Bob Abrams	Technical	Groundwater contours		Figure 2-5	*"Groundwater Elevation Contours in the Upper San Pedro Aquifer.."*	Better title would be "Groundwater Elevations and Contours in the Epworth Gravels Aquifer"

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Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
BA-11	Bob Abrams	Technical	Groundwater contours		Figure 2-6	*"Groundwater Elevation Contours in the Upper San Pedro Aquifer.."*	Better title would be "Groundwater Elevations in the Epworth Gravels Aquifer" because there are no contours
BA-12	Bob Abrams	Technical	Groundwater contours		Figures 2-9 and 2-10	*"Groundwater Elevation Contours in the Upper San Pedro Aquifer.."*	Better title would be "Groundwater Elevations in the Grimes Canyon Aquifer" because there are no contours
BA-13	Bob Abrams	Technical	Text box		Figure 2-12b	*"c o e 2 2 Ele at o 281.6 ft MSL" "M r h 2 2 Ele a ion 260.2 ft MSL"*	Problem with pdf conversion? Well 02N20W10J01S and Well 02N20W10G01S
TM-1	TMorgan	General Technical		2-7	2.1.2.2	*Fall 2023 groundwater elevations were measured in three of the five key wells in the WLPMA.*	With so few key wells in WLPMA, the loss of data from 40% of those wells (2/5 wells) is problematic. Recommend FCGMA and cooperating entities have a MOA that prescribes when the wells are to be monitored, who is responsible for measuring WLs, etc. It would be helpful to the reader to have a short explanation of why the well soundings were not performed (e.g., no access to well due to field conditions, loss of land access, etc.). Was this a one-off situation or a permanent change in data availability going forward?
TM-2	TMorgan	General Editorial	inaccurate section title	2-7	2.1.2	*Groundwater Elevation Hydrographs*	This section is titled "Groundwater Elevation Hydrographs", however the only reference to the hydrographs is to Figure 2-11. Suggest renaming this section "Groundwater Elevation" to more accurately reflect the text.
TM-3	TMorgan	General Technical	clarify text	2-8	2.2	*These tables, and the narrative to this section, will be updated upon receipt of 2024 extraction data.*	Does this mean that the 2025 Annual Report will be revised and re-issued OR will the 2024 extraction data be included in updated Tables 2-2 and 2-3 in the 2026 Annual Report. Suggest providing language to clarify to the reader how and when the missing data will be added to this report.
TM-4	TMorgan	General Editorial	typo	2-11	2.4	*CWMD = Calleguas Municipal Water District*	Abbreviation is incorrect in Table 2-4 Notes - should be CMWD
TM-5	TMorgan	General Editorial	typo	2-14	2.5	*Total available water is reported in Table 2-5 by water year.*	Should refer to Table 2-6. Also occurs in 2nd paragraph of this section.
TM-6	TMorgan	General Editorial	clarify text	2-14	2.5	*reported AMI-estimated extractions*	first use of AMI - spell it out for reader
TM-7	TMorgan	General Editorial	clarify text	2-14	2.5	*c Groundwater extraction reporting for 2023 was updated based on additional extraction reporting.*	The 2023 groundwater extraction information was updated in this report? In agency files AND this report? Explain to reader how the new data was accounted for.
TM-8	TMorgan	General Editorial	clarify text	2-14	2.5	*d Groundwater extraction reporting for 2024 were unavailable at the time of reporting.*	Like Section 2.2, when will these data become available? Help the reader understand FCGMA's plans for updating or amending this report.
TM-9	TMorgan	General Technical	clarify text	2-15	2.6	*Because neither model simulates water years 2023 and 2024...*	What is the plan with respect to the 2023 and 2024 data? Will this or future annual reports be revised when the groundwater models are rerun with these data?
TM-10	TMorgan	General Technical	clarify text	2-15	2.6	*...the change in storage for those two water years was calculated using the series of linear regressions used in previous annual reports...*	Has a comparison been done between the model-derived storage changes and the linear regression approach? Are we confident that the mix of analytical methods shown in Table 2-7a reasonably reflect reality? Should the linear regression values have a +/- range associated with them?
TM-11	TMorgan	Technical	inferences re: changes in storage	2-17	2.6.1.2	*data contained in Table 2-7b*	The FCA in the ELP model shows above normal precipitation years changing the storage from -393 to 5,962 AFY. The linear regression method infers storage changes at 6,030 and 5,271 AFY for the wet years of 2023 and 2024, respectively. With the linear regression method inferring storage changes in wet years only slightly greater than the modeled maximum in above normal years, does this imply that the linear regression method is underestimating storage change?
TM-12	TMorgan	Technical	reason for groundwater declines	3-1	3.1.1	*The periodic evaluation found that groundwater production exceeding the sustainable yield is the primary cause of groundwater level declines in the eastern WLPMA and northern ELPMA.*	Sustainable yield is a basin-wide, long term value. It seems too simplistic to say that a single years pumping (this is an annual report so we are focused on conditions for the most recent WY) is responsible for a single key well with declining water levels in eastern WLPMA. The report states "Elsewhere in the LPV Basin, where measured, groundwater elevations were either stable or increased between water years 2015 and 2024." That statement implies that groundwater extractions in excess of the long-term sustainable yield have NOT resulted in basin-wide groundwater level declines? Seems like language to the effect of "Long-term water levels were either stable or increasing between WY 2015 and 2024, however groundwater level declines were identified in the eastern WLPMA and northern ELPMA. The current monitoring well network is insufficient to determine if these declines are a function of localized pumping patterns and/or differing aquifer hydraulic properties. Further research is needed to better understand the hydrologic dynamics in these areas."
TM-13	TMorgan	General Technical	water level data	5-19	Fig 2-5	*Contours*	Why contour the wells in ELP? There are so few wells. Not sure it has significant meaning. Wells in WLP are not contoured.
TM-14	TMorgan	General Technical	water level data	5-23	Fig 2-7 & 2-8	*Contours*	Not sure how helpful the small portion of the basins that are contoured really are. A color ramp of the GW elevations at each well might be a simpler way to present these data.

FCGMA Board Meeting, March 26, 2025
Item 21D – TAC Recommendation Report

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
Water Year 2024 Draft Annual Report

Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
TM-15	TMorgan	General Technical	hydrographs	5-31	Fig 2-11	*Labels*	The blue open circles plotted on the hydrographs are labelled as "...Elevation Not Measured" and "Measurements not collected between October 2 and October 29, 2023 or March 2 and March 29, 2023. So, if the hydrograph shows a blue open circle (representing a value), but the data point is labelled as "...Elevation Not Measured", please clarify how to interpret these data points.
TM-16	TMorgan	General Technical	hydrographs	5-31	Fig 2-11	*Labels*	Is the black line referring to pressure transducer data? If so, suggest adding that to label. If not, add that they are manual measurements. why are there manual VCWPD WLE measurements shown for 06R01S?
TM-17	TMorgan	General Technical	hydrographs	5-31	Fig 2-11	*Hydrograph for 12H01S*	Why does this graph show a ~100ft decline in the WLE from ~2012-2014? Is that real? If so, it warrants and explanation in the text. If it is a graphing artifact, then recommend regraphing to eliminate the decline.
TM-18	TMorgan	General Technical	hydrographs	5-35	Fig 2-12b	*Hydrograph for 01B02*	Did the WLE actually rise ~200 ft then fall ~200 ft as depicted in the hydrograph? Looks like a suspect data point(s) are included in the plot. Suggest adding a note indicating that this (these) data point(s) are suspect, if that is the appropriate explanation.
TM-19	TMorgan	General Technical	hydrographs	5-35	Fig 2-12b	*Hydrograph for 01D02*	Why the 60 ft rise in WLE from October 2023 and March 2024 when over the previous +/-50 yrs the annual WLE fluctuation was in the 10-20 ft range?
TM-20	TMorgan	General Editorial	hydrographs	5-35	Fig 2-12b	*Data point labels*	Data point labels for 01G01S and 10J01S have missing letters.
TM-21	TMorgan	General Technical	project suite	3-2	3.1.2	*Expanded project suite to include:*	Suggest adding "potential" to phrase. "Expanded potential project suite to include:..."
TM-22	TMorgan	General Technical	recommendations	3-2	3.1.3	*This could include the construction of new dedicated monitoring wells*	Suggest adding a phrase to this sentence - "This could include the construction of new dedicated monitoring wells, incorporation of additional monitored stakeholder owned wells, and the development...."
CT-1	Chad Taylor	Editorial	typo	i	ES, 4th paragraph	*In the WLPMA, the volume of groundwater in storage increased by approximately 4,400 AF in water year 2024, with the largest increases occurring in the western portion of management area, near the Oxnard Subbasin.*	In the WLPMA, the volume of groundwater in storage increased by approximately 4,400 AF in water year 2024, with the largest increases occurring in the western portion of **the** management area, near the Oxnard Subbasin.
CT-2	Chad Taylor	Technical	Water level declines and sustainable yield	ii	ES, last sentence of section	*These ongoing groundwater elevation declines in eastern WLPMA and northern ELPMA indicate that groundwater production from the LPV Basin exceeds the sustainable yield.*	While it may be true that production has exceeded sustainable yield basin-wide, groundwater elevation declines could occur in these areas even if basin-wide groundwater use was less than the sustainable yield. This statement should be expanded to provide more detail.
CT-3	Chad Taylor	Editorial	Acronym definition	1-1	1.1.1, first sentence of first paragraph	*and all agricultural and M&I users*	Define M&I
CT-4	Chad Taylor	Technical	Recent weather conditions	1-4	1.2.1	*The average annual precipitation in the LPV between 2016 and 2024 was 16.4 inches per year, which is approximately 6% higher than the 1956 to 2024 average.*	Recommend indicating why this statistic maters
CT-5	Chad Taylor	Technical	Recent streamflow and precipitation	1-4 - 1-5	1.2.2; Table 1-1 and last paragraph of section	*Average daily flows in Arroyo Las Posas reflect the water year precipitation (Section 1.2.1) with the highest daily average flows (over 30 cfs) measured at gauge 841A during the 2010 to 2024 period occurring in 2010, 2011, 2017, 2023, and 2024. Water years 2010, 2011, and 2017 were above normal water years in which water year precipitation was approximately 140% of the long-term mean. Water years 2023 and 2024 were wet water years in which water year precipitation was approximately 185% of the long-term average (Table 1-1; Figure 1-4).*	Why was flow in 2010 and 2011 greater than 2023 and 2024 when precipitation was greater in 2023 and 2024? If this is correct then the statement in the first sentence of the paragraph may be a partial explanation of the relationship between flow in the Arroyo and precipitation.
CT-6	Chad Taylor	Technical	Report organization	1-5	1.3	*This annual report is organized according to the GSP Emergency Regulations.*	What about organizing and including formats and information indicated in the October 2023 Groundwater Sustainability Plan Implementation: A Guide to Annual Reports, Periodic Evaluations, & Plan Amendments guidance document from DWR?
CT-7	Chad Taylor	Editorial	Technical terminology	2-1	2.1, first paragraph	*These maps show the seasonal low (fall 2023) and high (spring 2024) groundwater elevations for the 2024 water year. Groundwater elevations are best constrained in the FCA (Figures 2-7 and 2-8), and least constrained in the GCA (Figures 2-9 and 2-10).*	Consider defining the term 'constrained' for non-technical readers.
CT-8	Chad Taylor	Editorial	Heading title	2-1	2.1.1 heading name	*Groundwater Elevation Contour Maps*	While groundwater elevation contour maps are discussed in this section, it presents other information about location specific elevation changes etc. Consider changing heading to reflect contents of the section.
CT-9	Chad Taylor	Editorial	Heading title	2-7	2.1.2 heading name	*Groundwater Elevation Hydrographs*	This section appears to deal more with comparison to sustainable management criteria than presentation and/or discussion of hydrographs. Consider changing heading to reflect the contents of the section.

Specific Comments from the Las Posas Valley Basin Technical Advisory Committee
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Comment ID	Commentor	Technical or Editorial Comment	Topic	Page Number	Section ID	Quoted Text	Comment
CT-10	Chad Taylor	Technical	Groundwater elevation monitoring	2-7	2.1.2.1 and 2.1.2.2	*Fall 2023 groundwater elevations were measured in three of the five key wells in the WLPMA. The elevations at two of these wells were below the measurable objectives (Table 2-1; Figure 2-11). Spring 2024 groundwater elevations were above the measurable objective groundwater elevations at two (02N20W08F01S and 02N21W12H01S) of the three of the key wells measured in the WLPMA (Table 2-1; Figure 2-11).* *Fall 2023 groundwater elevations were measured in three of the five key wells in the WLPMA. The elevations at two of these wells, wells 02N20W06R01S and 02N21W11J03S, were below the minimum thresholds (Table 2-1). Spring 2024 groundwater elevations were above the minimum threshold groundwater elevations at all of the key wells measured in the WLPMA (Table 2-1; Figure 2-11).*	3 out of 5 is 60 percent of key wells in the WLPMA, which is problematic for monitoring sustainability. 2/3 of the monitored wells below the MT speaks to a greater need to monitor all the Key Wells.
CT-11	Chad Taylor	Technical	Groundwater use records	2-8	2.2	*[Water year 2024 groundwater extraction data were not available at the time of reporting. Accordingly, Tables 2-2 and 2-3 summarize extraction information through the end of water year 2023. These tables, and the narrative to this section, will be updated upon receipt of 2024 extraction data. Additionally, because water year 2024 data are not available, Figure 2-14, which displays the spatial distribution of groundwater extractions in the LPV Basin, has not been prepared. This figure will be prepared upon receipt of 2024 extraction data.]*	These missing data make a complete technical assessment of conditions in the LPV Basin challenging.
CT-12	Chad Taylor	Editorial	Typo	2-14	2.5, second paragraph	*Similar to Table 2-2 and 2-3, the groundwater extractions for water years 2021 and 2022 presented in Table 2-5*	Appears that this reference should be Table 2-6.
CT-13	Chad Taylor	Editorial	Acronym definition	2-14	2.5, second paragraph	*a combination of reported AMI-estimated extractions for the period*	Consider defining the acronym AMI
CT-14	Chad Taylor	Editorial	Footnotes	2-14	Table 2-6	*2022* [c] *2023* [d]	These footnotes in the table appear to be applied to the wrong years.
CT-15	Chad Taylor	Technical	Change in storage estimation	2-14 to 2-15	2.6	*Because neither model simulates water years 2023 and 2024, the change in storage for those two water years was calculated using the series of linear regressions used in previous annual reports (FCGMA 2022, 2023, 2024a). The estimated change in storage calculated using this method differs from the estimates presented in the Periodic Evaluation, which were based on measured groundwater elevation changes from a smaller subset of wells. The series of linear regressions employed here better capture the spatial variability in storage change but are limited to the FCA (Table 2-7b; Figure 2-15).*	Is a comparison of the model-based and regression-based change in storage estimates available? How much difference is there in the changes in storage presented previously to those in this annual report?
CT-16	Chad Taylor	Technical	Water level declines and sustainable yield	3-1	3.1.1	*The periodic evaluation found that groundwater production exceeding the sustainable yield is the primary cause of groundwater level declines in the eastern WLPMA and northern ELPMA.*	As in Comment CT-2, while it may be true that production has exceeded sustainable yield basin-wide, groundwater elevation declines could occur in these areas even if basin-wide groundwater use was less than the sustainable yield. This statement should be expanded to provide more detail.
CT-17	Chad Taylor	Editorial	typo	3-3	3.2, bullet 4	*▪Consulted with the LPV TAC to inform development of the LPV Basin Optimization Yield Study, a study planned for completion in 2025 that will inform the Rampdown Rate required to achieve long-term groundwater sustainability by 2040.11*	The 11 after 2040 appears to be a typographical error
CT-18	Chad Taylor	Editorial	typo	3-4	3.3	*On December 9, 2024, FCGMA submitted the initial draft Basin Optimization Plan for review and consultation to the LPV PAC and TAC.*	The draft of the Basin Optimization Plan was submitted to the TAC on December 12, 2024
CT-19	Chad Taylor	Technical	Groundwater contours	5-11 and 5-13	Figures 2-1 and 2-2		How were the contours upstream of 07G01 defined in both shallow alluvial aquifer maps and also the contours downstream of 09Q08 in Figure 2-1? There do not appear to be wells with measured water levels up and downstream of these wells for generating contours.
CT-20	Chad Taylor	Technical	Groundwater contours	5-15 and 5-17	Figures 2-3 & 2-4		Recommend explaining why there are no contours for the Epworth Gravels Area in these two figures, both of which are titled 'Groundwater Elevation Contours...'

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CT-21	Chad Taylor	Technical	Groundwater contours	5-19	Figure 2-5		Why weren't the wells in WLPMA included in the contouring for the USP aquifer? There are measurements not in parentheses in WLPMA.
CT-22	Chad Taylor	Technical	Groundwater contours	5-21	Figure 2-6		Why are there no contours drawn on this figure? Recommend explaining why contours weren't created for the USP aquifer for this period.
CT-23	Chad Taylor	Technical	Groundwater contours	5-23	Figure 2-7		The 20 foot contour interval makes the northern ELPMA appear flat when there is significant complexity in the area. Recommend either modifying the contour interval for this area
CT-24	Chad Taylor	Technical	Groundwater contours	5-23 and 5-25	Figures 2-7 & 2-8		How were the contours in the neighboring basins developed, what is the assumed relationship between the Oxnard basin and the WLPMA and the Pleasant Valley basin and ELPMA, and how was this relationship used in the preparation of these contours. If the areas were contoured separately, recommend removing the contours from the neighboring basins from the maps. Otherwise, the apparent hydrologic disconnection between the basins should be discussed.
CT-25	Chad Taylor	Technical	Groundwater contours	5-31 through 5-39	Figures 2-11 through 2-13		Finding the locations of the hydrograph wells is challenging. Consider including a map with pointers to well locations if continuing to present multiple hydrographs on a single figure. Otherwise, the recommended format from the DWR October 2023 Groundwater Sustainability Plan Implementation: A Guide to Annual Reports, Periodic Evaluations, & Plan Amendments guidance document is a good way to show all the information a reader is interested in seeing on hydrographs.