LAS POSAS VALLEY WATERMASTER RESPONSE REPORT

Date: March 15, 2025

To: Las Posas Valley Watermaster Board of Directors

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

Re: Response Report to PAC Recommendation Report – 2025 Draft Annual Report Covering Water Year 2024 (dated March 2025)

The Las Posas Valley Watermaster (Watermaster) requested consultation from the Las Posas Valley Policy Advisory Committee (PAC) on the Draft Las Posas Valley Basin Groundwater Sustainability Plan (GSP) 2025 Annual Report Covering Water Year 2024. The Watermaster requested consultation in a memo to PAC dated January 15, 2025.

The PAC discussed and developed its recommendation report at the January 22, February 20, and March 6, 2025, meetings. PAC's March 6, 2025, recommendation report included one recommendation. This recommendation is listed below followed by Watermaster's response.

Recommendation 1: Provide clarification on relationship between basin sustainable yield, groundwater levels, and overall groundwater conditions in eastern portion of WLPMA and northern portion of ELPMA

The PAC had an initial discussion about the Draft GSP Annual Report with a focus on the monitoring wells and their importance in accurately determining the groundwater conditions and ultimately the sustainability of the Basin. The Annual Report focuses attention on two monitoring wells that are showing declining water levels and downplays the general groundwater level trends prevalent across both the WLPMA and ELPMA.

The 2025 Draft Annual Report (Section 3.1.1) concludes that:

- "Groundwater elevations in the eastern portion of the WLPMA and northern portion of the ELPMA declined between water year 2015 and water year 2024. Elsewhere in the LPV Basin, where measured, *groundwater elevations were either stable or increased between water years 2015 and 2024"* (emphasis added).
- "Undesirable Results occurred in the eastern portion of the WLPMA, where groundwater elevations at well 02N20W06R01S were consistently measured below the minimum threshold between water year 2019 and water year 2024."

The monitoring well hydrographs for the WLPMA (Figures 2-11) do not depict the dire conditions intimated by the Annual Report language. Well 02N20W06R01S in the eastern WLPMA is reported to have a water level below the Minimum Threshold but the hydrograph shows how the well has rebounded with wetter conditions. This well's low water level is the sole well used to contour a groundwater depression in the eastern WLPMA, despite the existence of a nearby unmonitored well completed in the same aquifer that could be used to cross=check the validity of the 06R01S water level values and provide insights on the areal extent of the presumed water level depression.

Similarly, the monitoring well hydrographs for the ELPMA (Figures 2-12a, b, c) show groundwater conditions where the water levels are at or above the Minimum Threshold and for several wells are at or above the Measurable Objective. A single well (03N19W19J01S) located along the extreme northern edge of the basin shows a long-term declining water level trend with current water levels near the Measurable Objective.

The PAC recommends that the tone of the Annual Report text be revisited to emphasize that the basin-wide groundwater conditions are stable or slightly improved with only one isolated well showing water levels near the Minimum Threshold.

This recommendation is consistent with the conclusionary statements presented in section 3.1.1 of the Draft Annual Report and more clearly communicates that neither the WLPMA nor ELPMA displayed basin-wide declines in water levels.

Response to Recommendation 1:
Under the Sustainable Groundwater Management Act (SGMA), sustainable yield is defined as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result." SGMA and the Judgment require the Basin be managed at sustainable yield by 2040. Sustainable yield means avoiding undesirable results. Monitoring of groundwater levels is the basis of determination of whether one or more undesirable results are occurring.

The GSP Emergency Regulations require that "representative monitoring" wells be identified that are within a broader network of wells that typifies one or more conditions within the basin or an area of the basin. The GSP (FCGMA 2019) refers to these representative monitoring wells as "key wells" and defined minimum thresholds at key wells in the WLPMA, ELPMA, and Epworth Gravels Management Area. Decline of groundwater elevations below one or more minimum thresholds may indicate an undesirable result is occurring.

The GSP determined the WLPMA would be experiencing an undesirable result if:

- In any single monitoring event, groundwater levels in 3 of 5 key wells are below their respective minimum thresholds; or
- The groundwater level in any individual key well is below the minimum threshold for either three consecutive monitoring events or three of five consecutive monitoring events.

The GSP determined the ELPMA would be experiencing an undesirable result if:

- In any single monitoring event, groundwater levels in 5 of 15 identified key wells are below their respective minimum thresholds; or
- The groundwater level in any individual key well is below the minimum threshold for either three consecutive monitoring events or three of five consecutive monitoring events.

The PAC's comment about a single well, 02N20W06R01S (06R01), being used to contour groundwater elevations in the area of the persistent groundwater depression in the eastern portion of the WLPMA is incorrect. In fact, groundwater elevations at four to five other monitoring wells in the eastern portion of the WLPMA were more than 150 feet below mean sea level when measured in

Spring 2023 and Fall 2024 and used to construct the contours shown in Figures 2-7 and 2-8 of the Annual Report.

Groundwater elevations have exhibited a declining trend in key wells in the northern portion of the ELPMA. Recharge to the Fox Canyon Aquifer in this area appears to be primarily from slow leakage from the overlying Upper San Pedro Formation, which exhibits little influence from precipitation or water-year type. While groundwater elevations have not yet declined below the minimum thresholds, groundwater modeling conducted for the GSP and the First Periodic Evaluation of the GSP forecast that groundwater elevations will decline below minimum thresholds unless projects are implemented and/or extractions reduced. Pumping in this area is occurring at a rate greater than recharge can support.

Watermaster notes that the Technical Advisory Committee concurred with the findings of the persistent groundwater depression in the eastern WLPMA and declining groundwater elevation trends in the northern portion of the ELPMA. Watermaster trusts that the additional explanation provided in this response report will assist the Policy Advisory Committee in its understanding of the technical findings included in the Annual Report.