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September 23, 2019

Mr. Jeff Pratt, P.E., Executive Officer
Fox Canyon Groundwater Management Agency
800 South Victoria Avenue
Ventura, California 93009-1610

Subject: Comment letter on the July 2019 Draft Groundwater Sustainability Plan for the Las Posas Valley Basin

Dear Mr. Pratt:

Calleguas Municipal Water District (Calleguas) respectfully submits this letter to the Fox Canyon Groundwater Management Agency ("Agency") to comment on the July 2019 Draft Groundwater Sustainability Plan for the Las Posas Valley basin (GSP). Calleguas thanks Agency staff for their efforts in preparing this draft GSP.

Calleguas' comments are organized in a manner that follows the structure of the GSP.

Executive Summary

a. The "sustainable yield" in the GSP is not consistent with the Water Code and the Emergency Regulations adopted pursuant to the Sustainable Groundwater Management Act (SGMA). On page **ES-2**, the GSP states that the "sustainable yield for the Las Posas Valley basin ("basin") is estimated "depending on which projects are ultimately implemented." This confuses the terms "*sustainable yield*" and "*sustainability goal*" as those terms are defined in the Water Code and the Emergency Regulations. The "sustainable yield" for the basin should be revised to reflect that the GSP must include two distinct calculations: (i) a "sustainable yield" that does not include future projects and management actions and which must be based on 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over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result*" (Wat. Code, § 10721(w).); and (ii) a "sustainability goal" which incorporates potential future projects and management actions and is calculated based on "*the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.*" (Wat. Code, § 10721(u); Cal. Code Regs., tit. 23, § 354.24.)

b. Calleguas' stored water is not part of the basin's "water budget" as defined in SGMA. In discussing the water budget for the basin, the GSP includes information related to water stored by Calleguas in the basin as the result of imported water projects. (e.g., GSP, pp. **ES-6** and **ES-7**) Pursuant to SGMA, a basin's "water budget" is defined as "*an accounting of the total groundwater and surface water entering and leaving a basin including the changes in the amount of water stored.*" (Wat. Code, § 10721.). Such accounting is specific to groundwater and surface water available to all pumpers and does not apply to the water stored by Calleguas because Calleguas is the only entity with a right to

that water. Calleguas purchases imported water from the Metropolitan Water District of Southern California to store in the basin, and has spent more than \$230 million to build conveyance infrastructure and purchase that water. Calleguas' stored water is the primary emergency drinking water supply for over three-fourths of the population in Ventura County. Calleguas' stored water is for public use during interruptions of imported water deliveries resulting from emergencies such as earthquakes, other natural disasters, or terrorism, as well as planned infrastructure maintenance. Including Calleguas' stored water in the water budget, including water stored pursuant to Agency-approved in-lieu credits programs, is incorrect because only Calleguas has the right to its stored water. The Agency has recognized the importance of Calleguas storing imported water in the basin as "essential to meet seasonal and dry year demands and provide protection from other potential water supply emergencies" as stated in its Resolution 1993-2, adopted on October 27, 1993. By adopting Resolution 1993-2, the Agency legally obligated itself to protect Calleguas' stored water and "employ its powers to protect injected and percolated foreign water for the various purposes of those agencies, cities and individuals who have injected and percolated water in accordance with the Fox Canyon Management Agency regulations and, within the boundaries of the Fox Canyon Groundwater Management Agency." (Resolution 1993-2 of the Fox Canyon Groundwater Management Agency To Support and Protect Injected and Percolated Water, passed and adopted by the Fox Canyon GMA Board on October 27, 1993.) Any basin water calculation in the GSP that includes Calleguas' stored water is not consistent with SGMA, California water rights law, or Agency adopted action. These same comments apply to the change in storage discussions found in various GSP sections, such as **Section 2.3**.

c. The GSP lacks a firm commitment by the other two groundwater management agencies with jurisdiction over portions of the basin outside Agency boundaries. Although the GSP has been prepared for the entire basin, certain portions of the basin are outside the Agency's jurisdiction and are under the jurisdiction of either Camrosa Las Posas GSA or the Las Posas Valley Outlying Areas GSA. (GSP, p. **ES-1**) The GSP does not set out any firm commitment by the other two GSAs to implement the GSP. Given the 20- to 50-year implementation period of the GSP, formal action by each respective GSA board committing to managing groundwater pumping in a manner consistent with the sustainability goal for the basin is necessary to ensure the long-term health of the basin.

d. The sustainable yield for the basin must not be at a level that hinders Calleguas' ability to access its stored water. If Calleguas cannot reasonably pump and deliver its stored water in times of emergency then many people in Ventura County may have no access to water when they will need it the most. The Agency has recognized the importance of Calleguas storing imported water in the basin as "essential to meet seasonal and dry year demands and provide protection from other potential water supply emergencies" as stated in its Resolution 1993-2, adopted on October 27, 1993. By adopting Resolution 1993-2, the Agency legally obligated itself to protect Calleguas' stored water and "employ its powers to protect injected and percolated foreign water for the various purposes of those agencies, cities and individuals who have injected and percolated water in accordance with the Fox Canyon Management Agency regulations and, within the boundaries of the Fox Canyon Groundwater Management Agency." (Resolution 1993-2 of the Fox Canyon Groundwater Management Agency To Support and Protect Injected and Percolated Water, passed and adopted by the Fox Canyon GMA Board on October 27, 1993.)

e. Sustainability criteria for the East Las Posas Management Area (ELPMA) is based on an arbitrary basin storage reduction limitation. The GSP states in multiple sections that the Minimum Threshold for these two management areas is based on a groundwater level that "limits reduction in storage to less than 20% relative to the estimated 2015 groundwater storage volume." (e.g., GSP pp. **ES-11**, **ES-12**) The only explanation offered as to how that 20% was arrived at is that it was "determined to be a reasonable approach by the [Agency] Board to avoid significant and unreasonable loss of supply." (e.g., GSP, p. **ES-12**) This explanation is arbitrary and falls short of meeting SGMA's requirement that the "*justification for the minimum threshold shall be supported by information provided in the basin setting, and other data or models as appropriate, and qualified by uncertainty in the understanding of the basin setting.*" (Cal. Code Regs., tit. 23, § 354.28(b)(1).

1. **Chapter 1: Administrative Information**

a. **SGMA requires avoiding undesirable results, not their minimization or mitigation.**

There are several references in this Chapter, and throughout the GSP, related to managing the basin in a manner that “limits,” “minimizes” or “mitigates” undesirable results. Technically, SGMA requires avoiding undesirable results by implementing sustainable groundwater management “*that can be maintained during the planning and implementation horizon without causing undesirable results.*” (Wat. Code, § 10721(v).)

b. **Projects cost estimates need more clarification.** It is unclear whether the cost estimates shown in **Table 1-1** and **Table 1-2** are for all basins managed by the Agency or whether they are specific to the Las Posas Valley basin, which is the subject of this GSP, and whether they include costs associated with periodic reporting and addressing data gaps. It is also unclear whether the estimated cost per acre-foot shown in **Table 1-1** is based on amortized project development costs over the life of the respective project. In addition, the GSP does not include any commitment by the other two GSAs, whose pumpers stand to benefit from the projects, to contribute to those costs.

c. **Section 1.8.2 must be corrected.** The GSP states “[a]ll of the purveyors in the LPV, including all municipal well operators, are in whole or part supplied water by CMWD, except for one that is supplied water by UWCD.” (GSP, p. 1-32.) This statement is not accurate and should be consistent with the information shown in **Table 2-5**.

2. **Chapter 2: Basin Setting**

a. **The Hydrogeologic Conceptual Model (HCM) of the ELPMA has key inaccuracies that materially impact sustainable groundwater management; ELPMA should be subdivided based on differences in hydraulic characteristics.** In **Section 2.2** (esp. pp. 2-2 and 2-3) the GSP describes the historical subdivision of the East and South Las Posas sub-basins along the Moorpark anticline but concludes that the anticline is no longer believed to restrict groundwater flow. Furthermore, this conclusion is used to justify not subdividing the ELPMA into separate management areas. Work completed after 2016, as confirmed in discussions at Technical Advisory Group meetings, demonstrates that the anticline and other associated structures indeed restrict groundwater flow, with groundwater level trends north of the anticline following a markedly different pattern of longstanding chronic groundwater level declines compared to wells to the south, which exhibit hydraulic communication with the arroyo. These realities are recognized elsewhere in the GSP but have not been revised here or in **Section 2.5** (Management Areas). The HCM should be updated and the ELPMA should be subdivided so as to differentiate between the above-described areas. This is critical for management, as evidenced by the fact that the GSP shows that projects alone will not stabilize groundwater levels and achieve the measureable objectives in the area north of the Moorpark anticline.

b. **Estimate of sustainable yield is too high and ignores important elements.** The approach for estimating the ELPMA sustainable yield described in **Section 2.4.3.4**, specifically the assumption that half of the precipitation over the basin becomes groundwater recharge, is not supported by best available information or best available science, as required by SGMA. **Section 2.4.4**, item no. 2 should address the fact that inflows from Simi Valley declined notably during the second half of the water budget base period. Percolation at the Moorpark Water Treatment Plant has similarly decreased. These factors lead to the conclusion that the ELPMA estimated sustainable reported in **Section 2.4.3.4** is overstated.

c. **A projected water budget for plan implementation and discussion of assumptions must be included in the GSP pursuant to the Emergency Regulations.** The GSP implementation is not discussed in sufficient detail to identify which projects and/or management actions are planned for implementation to achieve the sustainability goal. Rather the GSP describes a number of future model scenarios, none of which achieve the sustainability goal in all areas. Thus, the GSP does not present a

projected water budget for aquifer response to GSP implementation, as required by the Water Code. A discussion of the assumptions and projected water budget uncertainties should accompany the missing projected water balance. The assumptions and uncertainties discussion should address key issues impacting the projections including, but not limited to, model error, model predictive capability for simulated stresses under future conditions (esp. streamflow percolation with lower shallow aquifer groundwater levels), uncertainties in actual future rates of discharge by the Simi Valley and Moorpark wastewater plants and Simi Valley dewatering wells, and representativeness of historical streamflow data given the urbanization of Moorpark and Simi Valley.

d. The estimates of future sustainable yield (Sections 2.4.5.1.9 and 2.4.5.2.7) are not supportable and the GSP should not rely on Calleguas' stored water to achieve the sustainability goal. The GSP includes a number of future model scenarios, none of which achieve the sustainability goal in all areas of the basin. The estimated sustainable yield is not based on an analysis of the aquifer response to GSP implementation designed to achieve sustainability and is, therefore, not valid and not consistent with SGMA's requirement that such analysis be supported by best available information and best available science. Additionally, the modeling scenarios completed to estimate the future sustainable yield do not separate Calleguas' stored water from the analysis of projects and management actions that will be needed to achieve the sustainability goal. Including Calleguas' stored water in the modeling analysis is wrong and overestimates predicted groundwater levels. All other factors being equal, the estimated sustainable yield would be lower if Calleguas' storage is removed from the analysis, requiring greater pumping reductions (or additional projects) to achieve the GSP's measureable objectives. In short, the sustainable yield analysis implicitly assumes that Calleguas' stored water is/will be available to contribute toward meeting the sustainability goal, which is not correct and would violate Calleguas' rights to its stored water under California law. The analysis should specify projects and/or management actions that would be required to achieve the sustainability goal absent Calleguas' stored water.

3. Chapter 3: Sustainable Management Criteria

a. Statements that undesirable results may occur between 2020 and 2039 are inconsistent with SGMA. There are numerous statements in **Chapter 3** and throughout the GSP that presume that the occurrence of undesirable results between 2020 and 2039 is allowed under SGMA. This is not accurate. SGMA requires that the GSP outlines measures to be taken by the Agency in order to "*achieve the sustainability goal in the basin within 20 years of the implementation of the plan.*" (Wat. Code, § 10727.2.) The sustainability goal "*culminates in the absence of undesirable results within 20 years*" of the implementation of the GSP. (Cal. Code Regs., tit. 23, § 354.24.) These requirements do not translate to permitting undesirable results up until the year 2039. Such interpretation does not take into consideration the length of time needed to rectify the undesirable result and implies that one year may be sufficient (because undesirable results should not occur beginning with the year 2040). Further, assuming this GSP is approved, DWR has the authority to declare, at a future time, the approved GSP as either "incomplete" or "inadequate" following its periodic review of the Agency's progress towards achieving the sustainable goal for the Subbasin. (Cal. Code Regs., tit. 23, § 355.6(d).) One of the key criteria for DWR to make such future determination is whether "*the exceedances of any minimum thresholds or failure to meet any interim milestones are likely to affect the ability of the Agency to achieve the sustainability goal for the basin.*" (Cal. Code Regs., tit. 23, § 355.6(c)(1).) An "incomplete" or "inadequate" determination by DWR may result in intervention by the State Water Resources Control Board as authorized under the Water Code. (Wat. Code, § D. 6, Pt. 2.74, Ch. 11.) Additionally, all references in the GSP to avoiding one or more undesirable results "after 2040" are vague because "after 2040" could mean any time period, and should be corrected to say that undesirable result would not occur "beginning in 2040," consistent with SGMA.

b. The criteria for determining whether a management area is experiencing an undesirable result is unclear. The GSP lists two criteria for each management area to determine whether that management area is experiencing an undesirable result. (GSP, pp. **ES-10, ES-11, ES-12, Chapter 3**) It is unclear how the two criteria operate, whether together or independently, or whether on a first-to-occur basis.

c. Any proposed reduction in production must be consistent with California water rights law. Compliance with SGMA does not exempt the Agency from complying with California water rights law. (Wat. Code, § 10720.5.) The GSP states in this Chapter and in other chapters that the Agency is contemplating reducing production linearly over the 20-year GSP implementation period. (e.g., GSP, p. 3-3) Established case law has upheld reduction in groundwater production to safe yield that spans over a period ranging between 5 and 7 years. Further, any proposed pumping regime must protect Calleguas' stored water which it has a right to under California law. These are important considerations for the Agency in terms of achieving the sustainable goal of the basin. It informs the Agency's strategy in fulfilling its obligations under SGMA by necessitating the Agency to look at projects as the principal mechanism for bringing the basin's yield into balance.

d. Model assumptions must be recognized as a source of uncertainty in the model predictions. The GSP does not recognize the model assumptions, which are the basis upon which model outputs are generated and thus the GSP relies, as a source of uncertainty as well. This recognition needs to be expressly stated in the GSP.

e. Lack of sustainability criteria for water quality. Ongoing migration of water quality exceeding the Regional Water Quality Control Board Basin Plan Objectives is documented in the GSP for both the West Las Posas Management Area (WLPMA) and ELPMA. However, the GSP asserts that sustainability criteria for degraded water quality are not required because the groundwater quality is not "directly correlated" with groundwater production. (GSP, pp. 3-19, 3-23.) SGMA does not require that such direct correlation between pumping and groundwater quality degradation be demonstrated as a condition for including sustainability criteria for degraded water quality.

f. Measureable objectives are arbitrary and inconsistent with modeling results. No justification based on best available information or best available science is provided for the measureable objective for the eastern WLPMA, thus, making it arbitrary and inconsistent with SGMA. Further, the GSP states that the measureable objectives for ELPMA are based on 2040 groundwater levels with gradual reductions in groundwater production between 2020 and 2040. However, this statement does not agree with the model scenario results shown on **Figures 3-10a through 3-10e**, which, in some cases, show that projects would be required to achieve the measureable objective in addition to the "gradual reductions in groundwater production." (GSP, **Section 3.5.2**.)

g. Interim milestones presented in the GSP do not comply with the Emergency Regulations. The GSP does not include interim milestones for most locations with proposed measurable objectives. The GSP attempts to justify this by noting that 2015 current groundwater levels are higher than the measureable objective at some locations. The Emergency Regulations do not provide such an exemption. The interim milestones should be provided not only to comply with the regulations, but also to provide clarity concerning what the planned groundwater elevations are during GSP implementation. Interim milestones are presented, they are established based on an apparently arbitrary linear interpolation between 2015 groundwater levels and measureable objectives. No justification based on best available information or best available science as required by SGMA is provided for why a linear path would be expected, and such a path is inconsistent with the information contained **Chapter 5**. To comply with the Emergency Regulations, the interim milestones must be presented and be based on expected groundwater elevations resulting from plan implementation.

4. Chapter 4: Monitoring Networks

a. Data gaps inconsistencies. The data gaps identified in **Chapter 2** do not appear to be fully addressed by the recommendations for new monitoring wells presented in **Chapter 4. Section 4.6** recommendations are also inconsistent with the figures presented following the chapter. For example, a Grimes Canyon Aquifer monitoring well is recommended for the ELPMA in **Section 4.6.1**, but no such proposed well is depicted on **Figure 4-8**.

b. Calleguas' monitoring schedule is not accurately represented in the GSP.

Calleguas is willing to work with Agency staff on this issue and make corrections to **Table 4-5** and associated maps.

5. Chapter 5: Projects and Management Actions

a. Information regarding potential projects is not sufficient to meet SGMA

requirements. In subsection **ES.5**, the GSP makes clear that the "inclusion of these projects does not constitute a commitment" by the Agency Board "to construct or fund them" and the timing of the management actions is ambiguous. (GSP, p. **ES-13**) SGMA requires that projects "*shall be supported by best available information and best available science.*" (Cal. Code Regs., tit. 23, § 354.44(c).) SGMA also requires, among other things, that any projects identified in the GSP be accompanied with a "*description the circumstances under which projects or management actions shall be implemented, the criteria that would trigger implementation and termination of projects or management actions, and the process by which the Agency shall determine that conditions requiring the implementation of particular projects or management actions have occurred*" as well as, for each project, a "*time-table for expected initiation and completion, and the accrual of expected benefits.*" (Cal. Code Regs., tit. 23, § 354.44(b)(1)(A) and (b)(4).)

b. Discussion of proposed projects do not analyze impact to Calleguas' stored water.

As mentioned above, SGMA requires specificity as to project triggers and timetables. The GSP identifies a range of options under existing conditions, but no clear direction as to how the Agency intends to achieve sustainability without a significant disruption to Calleguas' ability to pump its stored water.

c. Timing and scope of the proposed management actions are unclear.

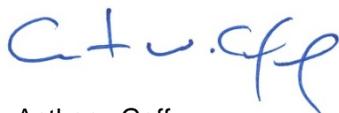
It is unclear when and how the proposed management actions will be implemented. SGMA requires that management actions "*shall be supported by best available information and best available science.*" (Cal. Code Regs., tit. 23, § 354.44(c))

d. Clarification is needed regarding funding for Project No. 1.

This project description should be revised to clearly distinguish it from existing Agency-approved in-lieu programs. Specifically, the description should clarify that no in-lieu storage credits will accrue as a result of this proposed project.

We appreciate the Agency Board's consideration of these comments. If you have any questions about Calleguas' comments, please contact me at (805) 579-7138 or tgoff@calleguas.com.

Sincerely,



Anthony Goff
General Manager

cc: Eugene West, Chair, Fox Canyon Groundwater Management Agency Board of Directors
Department of Water Resources