

October 22, 2021

Eastern Management Area GSA  
c/o William Buelow  
Santa Ynez River Water Conservation District  
3669 Sagunto Street, Suite 101  
Santa Ynez, CA 93460

Re: **Eastern Management Area draft GSP Comments**

Dear Directors and Staff:

The purpose of this letter is to provide the Eastern Management Area Groundwater Sustainability Agency (EMA GSA) with the comments of the Santa Ynez Water Group to the EMA GSA's draft groundwater sustainability plan (GSP).

Enclosed with this letter is a memorandum prepared by our consultant, Bondy Groundwater Consulting, Inc., focusing on the technical issues and concerns identified during their review of the GSP. In addition to those comments, we add the following.

As previously expressed to the GSA, our members primary concern continues to be the GSA's failure to adequately consider the interests of agricultural landowners holding overlying groundwater rights and the effects of the GSA's actions on those landowners. This lack of consideration is evident in the GSA's proposed projects and management actions and associated financing structure.

For example, the draft GSP anticipates increased pumping demands by groundwater users who hold appropriate groundwater rights. (Draft GSP, Table 3-37.) The draft GSA goes on to provide that projects or management actions may be implemented in response to these projected increases in demand. (Draft GSP, Section (3.3.3.7).) Further, the draft GSP proposes a "proportional and equitable approach to funding implementation of the GSP. . . ." (Draft GSP, Section 6.2.) This will result in fees being levied for groundwater pumping "against all groundwater pumpers in the [Eastern Management Area]. . . ." (Draft GSP, Section 6.4.) Therefore, effectively, the GSA is requiring agricultural landowners who hold overlying groundwater rights to pay for the increased pumping of groundwater users who hold appropriate groundwater rights. Our members do not agree that this approach is equitable, as intended by the GSA.

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While this is one example of our members' concerns, several others are provided in the enclosed memorandum. We appreciate the significance of the considerations and decisions the GSA must undertake, and we look forward to working with you further regarding these matters.

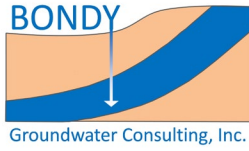
Please feel free to contact us if you have any questions or wish to discuss any of our comments.

Very truly yours,



Joseph D. Hughes

JDH:ps  
Enclosure



## MEMORANDUM

To: Joe Hughes / KDG

From: Bryan Bondy / BGC *B B*

CC: Doug Circle, SYWG

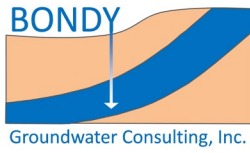
Date: October 22, 2021

Re: EMA Draft GSP Review

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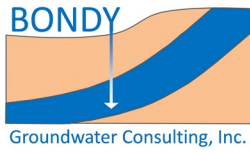
Pursuant to your request, this memorandum presents the material findings from my review of the Draft Groundwater Sustainability Plan (GSP) for the Eastern Management Area of the Santa Ynez River Valley Groundwater Basin. Please note that my review focused on the key GSP elements only; not all GSP aspects were reviewed in detail.

- Section 2.3.1: SYRWCD, City of Solvang, and ID No. 1 are incorrectly listed as overlying groundwater rights holders on p. 2-38.
- Section 3.2.3 states that the "GSP focuses on constituents that relate to beneficial uses of groundwater that *might be impacted by groundwater management activities*" and later says "projects and management actions that are currently being considered, even if tentatively, *are not anticipated to directly cause concentrations of any of these constituents in groundwater to increase*" (emphasis added). These statements are conflicting. It is requested that the GSP clarify whether there is a demonstrable causal relationship between groundwater management or groundwater pumping and water quality degradation.
- Section 3.2.5 – Interconnected Groundwater and Surface Water: This section does not include estimates of the quantity and timing of interconnected surface water depletions as required by GSP Emergency Regulations §354.16(f).
- Section 3.2.5.1 – Tributary Alluvium:
  - The 4<sup>th</sup> paragraph discusses various perennial reaches of various creeks that cross the EMA. Other than near the southern boundary of the Santa Ynez Uplands area, the text does not state whether interconnection exists along these reaches. The GSP could be improved by including a conceptual discussion concerning the approximate location and timing of interconnection along the remainder of the perennial reaches, if any.



- When taken together, the last two sentences of the 4<sup>th</sup> paragraph may be interpreted to imply that all perennial surface water flow is sourced from EMA groundwater (presumably during non-storm flow conditions). It is requested that the text be revised to indicate that many of the perennial reaches extend north of the basin boundary, indicating that they are, at least in part, spring fed from the surrounding bedrock of the San Rafael Mountains.
- Historical Water Budget:
  - Comparison of Figure 3-52 with the representative hydrographs provided in the appendices, suggests that the water balance is not following groundwater level trends. Based on the hydrographs for the Paso Robles Formation, the cumulative storage change should peak sooner (earlier in the 2000s) and should do so at a higher value that is significantly greater than the starting value of zero (groundwater levels were notably higher in the early 2000s as compared to the 1982). The groundwater level trends also suggest that the declining storage in the 1980s is overestimated. Based on these observations, there is a concern that the historical water budget is not well "calibrated" to the groundwater level data and is biased toward overestimating storage declines and underestimating storage increases. As a result, there is a concern that the historical water balance overstates the EMA storage deficit.
- Projected Water Budget:
  - The projected increase in irrigated acreage is likely overstated. Based on feedback from growers in the Santa Ynez Water Group, the current trend is one of higher value, higher water demand crops leaving the region. As crops leave the region area, there is less incentive to convert pastureland or other land into irrigated land. The "large increase expected" in cannabis stated in memo will likely occur on previously unirrigated acres, if it happens at all. It is requested that the projected water budget be updated considering this comment.
  - The water duty factors for vineyards are too high. A more realistic water duty is closer to 1 – 1.2 AFY/acre, inclusive of both irrigation and frost protection (per vineyard operators in Santa Ynez Water Group). It is requested that the projected water budget be updated considering this comment.
- Sustainable Management Criteria:
  - Chronic Lowering of Groundwater Levels – The logic behind the minimum thresholds is questionable and the minimum thresholds themselves appear arbitrary.

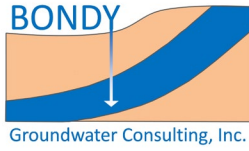
The GSP concludes that well operational issues that may be associated with groundwater levels below the top of well screens are indicative of significant



and unreasonable depletion of supply. First, well operational issues are not a depletion of supply in of themselves; rather they are infrastructure issues that can be remedied through well redevelopment, well replacement, or backup wells, which could be implemented as GSP projects. It is suggested that depletion of supply not be viewed as well issues that can be remedied; rather, depletion of supply is more appropriately characterized as the inability to produce adequate water because the water isn't there.

Second, the "well impact" analysis provides clear evidence contrary to the GSP conclusions. Approximately 25-30% of the wells in the EMA had groundwater levels below top of screen in 2018, yet the GSP states that no reported significant and unreasonable effects occurred (see p. 5-13). If the premise is that groundwater levels below top of screen causes significant and unreasonable effects, then why haven't numerous instances of significant and unreasonable effects been reported already? Moreover, the number of wells with groundwater levels below the top screen at minimum threshold groundwater elevations is not materially different than the number of wells at 2018 groundwater levels. (0% more municipal wells, 0-3% more agricultural wells, and 1.7-4% more domestic wells). There is no justification for why the very small increase in the number of wells with groundwater levels below top of screen results causes the EMA to cross the line into the realm of significant and unreasonable effects. No specific, demonstrable effects that are *not* occurring at 2018 levels, but are expected to occur at the minimum threshold levels are identified. For these reasons, the minimum thresholds seem arbitrary.

The GSP states that the magnitude of impacts from groundwater levels below tops of well screens differs depending on well type (i.e., agricultural versus municipal, versus domestic) and notes that domestic wells tend to be shallower and may be more sensitive to water levels falling within the screen interval. The GSP goes on to say that municipal wells serve drinking water to citizens living in the EMA and so supply reduction cannot be easily addressed. Agricultural wells often are deeper and have longer well screens that can tolerate loss of efficiency and more drawdown resulting from water levels falling below top of screen. It is noted that there is nothing that has or would prevent municipal or domestic well owners from drilling deeper wells. It is unfair to restrict the use of the groundwater resource and/or charge fees to benefit specific types of beneficial users who have not made the same level of investment to access the groundwater resource as others. If the GSP is to keep groundwater levels high enough to prevent well issues for those who have not fully invested in infrastructure to access the resource during droughts, then those users should fund the management actions necessary to do so, particularly in the case of appropriators whose groundwater rights are junior to the overlying landowners.

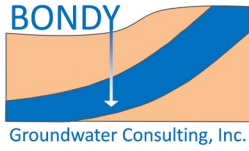


- Degraded Water Quality:
  - The GSP could be improved by explaining how the GSA will differentiate between changes in concentrations caused by groundwater pumping or GSA activities versus other mechanisms.
- Land Subsidence:
  - The subsidence minimum threshold does not appear to be supported by any evidence to indicate that significant and unreasonable effects would occur if it were exceeded.
  - The three bullets listed on page 5-46 and text elsewhere in Section 5.9 may be more appropriately called “land surface elevation changes” instead of “land subsidence”, because the data sets relied on up do not differentiate between land surface elevation changes resulting from tectonic activity versus elastic or inelastic land subsidence due to groundwater withdrawal.
  - Please reconsider the minimum thresholds and measurable objectives based on the following information from the Paso Robles GSP concerning the accuracy of InSAR data:

*“The InSAR data provided by DWR is subject to measurement error. DWR has stated that, on a statewide level, the total vertical displacement measurements between June 2015 and June 2018 is subject to two error sources (Brezing, personal communication):*

- 1. The error between InSAR data and continuous GPS data is 16 mm (0.052 feet) with a 95% confidence level*
- 2. The measurement accuracy when converting from the raw InSAR data to the maps provided by DWR is 0.048 feet with 95% confidence level.*

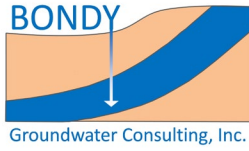
*Simply adding the errors 1 and 2 results in a combined potential error of 0.1 foot (or 1.2 inches). While this is not a robust statistical analysis, it does provide an estimate of the potential error in the InSAR maps provided by DWR. A land surface change of less than 0.1 feet is therefore within the noise of the data, and is equivalent to no subsidence in this GSP.”*



- Depletions of Interconnected Surface Water –
  - The depletions of interconnected surface water minimum threshold of 15 feet below the stream bed was selected based on the conclusion that it is the lowest groundwater level that most GDE plants can typically access with their roots. However, Table 3-13 indicates that Coast Live Oaks occupy approximately one-half of the Category A GDE, which have a rooting depth of approximately 30 feet<sup>1</sup>. Riparian mixed hardwood makes up the balance of the Category A GDE area, with a shallower typical rooting depth. If a deeper minimum threshold (say 30 feet) was used and the result was replacement of riparian mixed hardwood with Coast Live Oaks, would that be a significant and unreasonable effect?
- Projects and Management Actions
  - Section 6.1 states “The EMA GSA has developed a portfolio of potential management actions and projects compatible with the respective *operational philosophies* that can be implemented in a phased manner as the conditions in the Basin dictate” (emphasis added). What are the “operational philosophies” and what is their source?
  - Section 6.1 states “Further, the EMA GSA may determine that the implementation of Group 2 management actions and/or Group 3 projects is desirable for reasons other than reaching sustainability within the EMA and may elect to implement initiatives from either Group 2 or 3 at any time.” Please provide examples and please explain what authority the EMA GSA would use to implement projects or management actions for any reason other than to achieve sustainability.
  - Section 6.1 states “Based on the results of the analysis that was performed in conjunction with the development of this GSP, the EMA GSA concludes that the sustainability goals described in this GSP and required under the provisions of SGMA can be achieved through the implementation, as needed, of the Group 1 management actions described in Sections 6.3 through 6.6.” What is the referenced analysis and where can details be found?
  - Section 6.2 states “A *proportional and equitable* approach to funding implementation of the GSP and any optional actions will be developed in accordance with all state laws and applicable public process requirements” (emphasis added). Section 6.4 adds “Fees to be levied for groundwater pumping will likely be in addition to a tiered base fee structure that will be levied against *all* groundwater pumpers in the EMA, including de minimis pumpers” The SYWG overlying rights holders do not agree that a proportional approach to funding GSP implementation applied to all groundwater pumpers is

<sup>1</sup>

<https://groundwaterresourcehub.org/sgma-tools/gde-rooting-depths-database-for-gdes/>



equitable because it does not consider groundwater rights priorities. Because overlying landowners' groundwater rights are senior to appropriators; The SYWG overlying rights holders believe consideration should be given to requiring appropriators to first reduce their pumping and/or fund actions necessary to achieve the sustainable yield.

- Miscellaneous Comments
  - The GSP water budgets indicate a “storage deficit” under historical and projected future conditions. Despite the specific requirement to identify and quantify overdraft conditions, (GSP Emergency Regulations §354.18(5)), the GSP does not explicitly indicate whether an overdraft condition exists because of the how the term “storage deficit” is used in the text, apparently in place of “overdraft.” It is requested that the GSP clearly state whether overdraft conditions existed over a period of years during which water year and water supply conditions approximate average conditions and, if so, quantify the overdraft.
  - Table 3-37 presents projections of increasing pumping by EMA appropriators. Section 3.3.3.7 (Reliability of Historical Surface Water Supplies) and Section 3.3.5.2 (Summary of Projected Water Budget) describes the potential for additional increases in pumping by groundwater appropriators in the EMA not captured in Table 3-37 to address potential decreases in Lake Cachuma or imported water supplies. The draft GSP goes on to say that projects or management actions may be implemented by the GSA to address these increased demands. Based on text in Section 6.2, it is anticipated that the costs for these projects or management actions would be paid for by all EMA groundwater users. The SYWG believes it would be more appropriate for the costs for any projects or management actions to address increased pumping by the appropriators be paid for by the appropriators instead of sharing those costs with senior water rights holders.

## Closing

Please contact me if you have any questions regarding this memorandum. The opportunity to assist KDG / SYWG is greatly appreciated.