

Letter to Borrego Valley Groundwater Sustainability Agency

Re: AAWARE Comments on March 2019 Draft Groundwater Sustainability Plan for the Borrego Valley Groundwater Basin and Baseline Pumping Allocations

May 20, 2019

Delivered via E-Mail and Overnight Delivery to: County of San Diego Planning & Development Services Attention: Mr. Jim Bennett

> Submitted by: Michele A. Staples, Esq. Boyd L. Hill, Esq.

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VIA E-MAIL (PDS.LUEGGroundWater@sdcounty.ca.gov) & Overnight Delivery

County of San Diego Planning & Development Services c/o Jim Bennett 5510 Overland Avenue, Suite 310 San Diego, CA 92123

RE: AAWARE COMMENTS ON MARCH 2019 DRAFT GROUNDWATER SUSTAINABILITY PLAN FOR THE BORREGO VALLEY GROUNDWATER BASIN AND BASELINE PUMPING ALLOCATIONS

Dear Mr. Bennett:

I. INTRODUCTION AND SUMMARY.

The Agricultural Alliance for Water and Resource Education ("AAWARE") provides this comment letter to the Borrego Valley Groundwater Sustainability Agency ("GSA") to address AAWARE's concerns regarding the March 2019 draft Groundwater Sustainability Plan ("GSP") for the Borrego Valley Groundwater Basin ("Basin"). AAWARE's members comprise the majority of the agricultural property owners and groundwater users overlying the Basin. AAWARE's members are dependent on the Basin for agricultural and domestic water uses on their properties.

For many years, AAWARE's members have been working toward a solution to bring the Basin into balance, both individually and, more recently, as members of the Borrego Water Coalition ("Coalition") and the Advisory Committee to the GSA ("Advisory Committee"). AAWARE members have voluntarily reduced water consumption, willingly shared their production data with the Core Team in confidence, researched and proposed metering systems for approval by the GSA, and devoted countless hours to engage in various forums at which groundwater management alternatives have been discussed.

AAWARE seeks constructive dialog with the GSA in the hopes of reaching a workable solution to the GSP and its intended implementing programs that will facilitate beneficial use of the Basin, including agricultural use, together with sound management under the Sustainable Groundwater Management Act ("SGMA", Wat. Code, § 10720 et seq.). Unfortunately, the 60-day public review period for the GSP was not further extended as necessary to allow the ongoing dialog to reach a satisfactory conclusion. Compounding the problem, the GSA withheld from public disclosure critical information upon which the GSP is based, hindering AAWARE's ability to provide relevant information during the Advisory Committee proceedings and during the public comment period on the GSP. For example, Dudek's "Update to the USGS Borrego Valley Hydrologic Model" and summary report dated December 2018 (GSP Appendix D1 ("Dudek Model Update")) were withheld from public disclosure until the draft GSP was

published in March 2019. (See, <u>Exhibit 1</u>, November 2, 2018 joint T2 Borrego/AAWARE letter, p. 1.) The GSA is still withholding the Planning, Permitting and Ordinance Review Technical Report (referenced at GSP p. 4-38) and Working Draft Financing Plan (referenced at GSP pp. 5-9, 5-10).

Therefore, AAWARE and its individual members (who join in these comments) must now preserve their rights regarding the substantive and procedural deficiencies of the draft GSP and the process of its development that improperly marginalize, subordinate and prevent consideration of the AAWARE members' interests in the Basin, and violate their Constitutionally-protected substantive and procedural due process rights, water rights, and private property rights.

As a result of the Core Team's failure to adhere to SGMA's statutory and regulatory requirements and guidance provided by the Department of Water Resources ("DWR") (such as the use of best available science and compliance with fundamental principles of substantial evidence and due process), the draft GSP proposes excessive regulatory obligations and crushing financial burdens that would plainly eliminate private agricultural water use from the Basin. In enacting SGMA, the Legislature was clear that it did not seek to create a subordinate class of beneficial users regulated out of existence by SGMA. Instead, the Legislature mandated that beneficial users are to be full participants in the planning process, with the express intent to preserve beneficial uses through "sustainable", rather than draconian, management.

As discussed in greater depth below, the draft GSP:

- 1. Is being developed by a process that withholds relevant information relied upon in the GSP and prevents active involvement by affected agricultural water users, thereby preventing the GSA's consideration of the agricultural users' interests as required by SGMA. (Wat. Code, §§ 10723.2(a)(1), 10727.8(a).)
- 2. Fails to rely upon the best available science provided in the USGS report prepared in cooperation with the District entitled, "Hydrogeology, Hydrologic Effects of Development, and Simulation of Groundwater Flow in the Borrego Valley" ("2015 USGS Model Report"-- https://pubs.usgs.gov/sir/2015/5150/sir20155150.pdf, excerpts cited to herein are attached hereto as Exhibit 2.)
- 3. Establishes arbitrary management zones without model testing the zones.
- 4. Adopts sustainability measures that are not supported by the evidence.

5. Calls for excessive and costly implementing programs that are economically infeasible and needlessly harm beneficial agricultural uses in the Basin.

6. Includes administrative and program development costs that far exceed what is contemplated by SGMA for a small basin with few pumpers, rendering GSP implementation economically infeasible.

¹ The Exhibits referenced in this letter have been uploaded to a share site and may be accessed at the following link: https://sharefile.jacksontidus.law/wl/?id=H2lcpnHVFl2x6XJrcHnLpAySefoKnfDt

In order to correct the draft GSP's procedural and substantive deficiencies, AAWARE asks the GSA to:

- Establish a collaborative technical process to be convened before GSP adoption to allow a meaningful opportunity for public review and dialog on matters that were not adequately developed through the Advisory Committee process;
- Convene technical meetings before GSP adoption among the water producers who will be subject to the GSP and their respective technical consultants in order to finalize their Baseline Pumping Allocations;
- Provide information explaining why the GSA decided to effectively reject the USGS's Scenario 6 sustainable pumping target of 7,824 AFY (<u>Exhibit 2</u>, 2015 USGS Model Report, p. 122 (Table 20)), including any data indicating a potential undesirable result at that pumping target;
- Produce at least one model run evaluating a pumping target of 7,100 AFY, which is the total average natural safe yield amount substantiated in both the 2015 USGS Model Report and Dudek Model Update;
- Provide for a permanent Technical Advisory Committee as part of the GSP governance process to be comprised of California licensed engineers, hydrogeologists and other licensed technical representatives from all stakeholders desiring to participate (see Exhibit 1, November 2, 2018, joint letter on behalf of T2 Borrego and AAWARE regarding Borrego Springs Groundwater Model and Proposal for Collaborative Technical Approach); and
- Amend and recirculate an updated draft GSP, and extend the comment period to allow for further review and comment by affected beneficial users.

II. AAWARE COMMENTS ON THE DRAFT GROUNDWATER SUSTAINABILITY PLAN.

- A. THE GSP FAILS TO RELY UPON THE BEST AVAILABLE SCIENCE AND INSTEAD JUSTIFIES THE GSA'S PRE-DETERMINED SUSTAINABLE YIELD FOR THE BASIN AT 5,700 AFY.
 - 1. The GSP Mischaracterizes and Wrongly Adopts the USGS Natural Surface Recharge Estimate as the Basin's Sustainable Yield.

The 2015 USGS Model Report indicates that the available yield of the Basin in the predevelopment condition is 7,074 afy. The 2015 USGS Model Report's "Scenario 6" evaluates a target pumping rate of 7,824 AFY (for 30 years commencing in 2030) and concludes that at 2060, recharge approximates discharge. (See, Exhibit 2, 2015 USGS Model Report pp. 4, 118 (Table 19), 122 (Table 20); Exhibit 3, May 16, 2019, Wagner & Bonsignore Letter Report, p. 2.)

Rather than adopt the sustainable yield of 7,824 AFY as set forth in the 2015 USGS Report Scenario 6, or even the available pre-development yield of 7,100 AFY set forth in the USGS Model Report, the GSP mischaracterizes the USGS Model Report and incorrectly adopts

the USGS Model Report's natural *surface* recharge of 5,700 AFY as the Basin's "sustainable yield":

At present, the total baseline pumping allocation (BPA) of 21,963 acre-feet per year (AFY) greatly exceeds the <u>Subbasin's estimated long-term sustainable yield of 5,700 AFY determined by the U.S. Geological Survey and confirmed in this GSP.</u> (GSP, p. ES-3 [emphasis added].)

As set forth above, the USGS did not determine or estimate the long-term sustainable yield at 5,700 AFY. Rather, the USGS estimated the long-term sustainable pumping rate at 7,824 AFY and only estimated the natural recharge to the Basin from surface water at 5,700 AFY. (Exhibit 2, 2015 USGS Model Report, pp. 2, 122 (Table 20), 129.) USGS estimated the total average natural recharge to the Basin to be approximately 7,100 AFY, comprised of 5,700 AFY surface recharge and 1,400 AFY underflow into the Basin. (See, Exhibit 2, 2015 USGS Model Report pp. 2, 129; See also, Dudek Model Update, p.10; Exhibit 3, Wagner & Bonsignore Letter Report, p. 2; Exhibit 6, Thomas Harder Letter Report p. 7.)

The GSP's mischaracterization and adoption of USGS estimated natural surface recharge of 5,700 AFY as the "sustainable yield" <u>violates the statutory definition of sustainable yield as the maximum quantity of water</u> that can be sustainably used. (Wat. Code, § 10721(w).)

The evidence contained in the 2015 USGS Model Report shows that 5,700 AFY is **not the maximum quantity** of water that can be sustainably used. The USGS model runs for SGMA sustainability that take into natural subsurface recharge, irrigation return flows and other components of the Basin's developed state estimate the long-term sustainable yield at 7,824 AFY.

The evidence contained in the GSP also shows that 5,700 AFY is not the maximum quantity of water that can be sustainably operated within the Basin. The GSP Basin setting discussion for safe yield estimate concedes that the water budget numbers set forth in the 2015 USGS Model Report are the correct numbers for what the GSP calls the "combined natural recharge" to the Basin:

The average annual natural recharge of water reaching the saturated zone, which includes stream leakage and infiltrating water through the unsaturated zone, was 5,700 AFY for the full model simulation period from 1929 to 2010 (USGS 2015). In addition to natural recharge from stream leakage and infiltrating water (mostly from irrigation return flows), the Subbasin received underflow originating from the adjacent watersheds at an average annual rate of 1.400 AFY. Therefore the combined average annual natural recharge to the BVGB is approximately 7,100 AFY. (GSP, pp. 2-80 – 2-81 [emphasis added].)

The GSP Basin setting discussion for water budget purposes provides a slightly lower number of 6,770 AFY for combined total inflow based on the Dudek Model Update that admittedly either overestimates pumping or underestimates recharge. (GSP, pp. 2-72, 2-73 (Table 2.2-9A), 2-79.) However, even at that lower water budget inflow number of 6,770 AFY, the GSP concedes that the "sustainable yield" of 5,700 AFY is not the maximum quantity of water that can be sustainably operated within the Basin. By arbitrarily picking the average annual natural surface recharge number as the sustainable yield, the GSP violates the SGMA regulations requiring the GSA to use water budget projections and safe yield estimates as the foundation for determination of sustainable yield. (23 Cal. Code Regs., § 354.18(b)(7), (c)(3).)

The County's GSP contract with Dudek specifically tasked Dudek to "consider both surface and groundwater data and run predictive simulations to determine effects of recharge and extraction on levels and quality along with implementation measures to be detailed in the GSP." (See, Exhibit 4, excerpts of County Contract No. 555655, Agreement with Dudek, pp. 21-22) The County/Dudek contract explains that the purpose of this task, among other things, is "to determine sustainable yield for the basin in its entirety that is acceptable to DWR".

Instead, Dudek ran only model scenarios evaluating the 5,700 AFY natural surface water recharge as the Basin-wide sustainable yield. (See, GSP, pp. 3-20, 3-21 ["All of the simulations are based on the target pumping rate of 5,700 AFY being achieved in year 20 of GSP implementation."]; Exhibit 6, 2019 Thomas Harder Letter Report, p. 7; Exhibit 5, April 26, 2019, Transcript, p. 54:1-11 [Dudek ran one model scenario stepping down current pumping to 5,700 afy over 20 years].) The GSA model run for the "sustainable yield" of 5,700 AFY shows that operation of the Basin in that amount is well below the maximum quantity of water that can be operated without undesirable result. (GSP, p. 3-20, Figure 3-3-2.) Establishing the GSP "sustainable yield" at 5,700 AFY would add between 35,000 and 70,000 acre-feet over a 35-year period (about 1,000 to 2,000 AFY) to storage instead of being sustainably used without undesirable result. (GSP, Figure 3-3-2; See, Exhibit 6, 2019 Thomas Harder Letter Report, p. 4 [quantifying the amount of storage gain]; Exhibit 3, 2019 Wagner & Bonsignore Letter Report, p. 2.)

AAWARE questions the GSA's approach in formulating a desired sustainable yield result and then rationalizing that conclusion after-the-fact. However, that is what happened in this case. The Dudek Model Update selectively accepts only the information supporting the GSA's decision to limit pumping to the 5,700 AFY natural surface water recharge, and rejects or ignores the data, laws and guidance contradicting that decision. No mention is made of the USGS Scenario 6 target production level of 7,824 AFY or any undesirable result that would occur at that level. The predictable result is that the County Board of Supervisors and District Board of Directors (as the GSA decision maker in this case) and DWR (as the oversight agency) will receive a one-sided analysis of the Basin's sustainable yield. The GSP's self-serving analysis of sustainable yield is arbitrary and capricious, particularly where the GSA has at its disposal the 2015 USGS Borrego Valley Hydrologic Model that was developed in cooperation with the District over a 6-year period at significant expense for the express purpose of testing alternative management scenarios. (See, Exhibit 2, 2015 USGS Model Report, p. 1.)

Contrary to the requirements of SGMA and the scope of work outlined in the County/Dudek GSP contract, the GSA <u>failed to conduct model runs at any number between 5,700 AFY natural surface water recharge and the 2015 USGS Model Report's sustainable yield Scenario 6 model result of 7,824 AFY that the GSP ignores and effectively rejects. (See, 2015 USGS Model Report, p. 122 (Table 20, Scenario 6).) The GSA should provide at least a model run evaluating production at the combined average annual natural recharge amount of 7,100 AFY. (23 Cal. Code Regs., § 354.26(c) [requirement to consider multiple minimum thresholds to determine point at which undesirable result occurs]; Exhibit 2, 2015 USGS Model Report, p. 129; Exhibit 3, Wagner & Bonsignore Letter Report, p. 2; Exhibit 6, Thomas Harder Letter Report, p. 7.)</u>

2. The GSP's Incorrect Adoption of Natural Surface Recharge as the "Sustainable Yield" Violates SGMA's Intent to Preserve Common Law Water Rights.

The GSA's adoption of the Basin's natural surface recharge of 5,700 AFY as the "sustainable yield" violates common law water rights as protected by the California Constitution (Art. X, Sec. 2) to maximum reasonable and beneficial use of the Basin sustainable or safe yield, and thus violates both the California Constitution and SGMA. (Wat. Code, §§ 10720.1(b), 10720.5(a), (b); Cal. Const., Art. X, Sec. 2; California American Water v. City of Seaside (2010) 183 Cal.App.4th 471, 480-481 ["The solution must not, of course, unreasonably or adversely affect the existing legal rights and respective priorities of the parties."].) Most of the groundwater rights adjudications in California (if not all) use a definition of the basin yield that includes 3 components:

- 1. Natural yield, which is the amount of the total recharge including underflow that would exist under pre-development conditions. In the Basin, this amount is about 7,100 AFY;
- 2. Developed yield, which is the amount of water that is developed from pumping the groundwater basin and includes changes in storage and reductions in basin outflow and evapotranspiration; and
- 3. Return flow from pumping.

(See, Exhibit 3, Wagner & Bonsignore Letter Report, p. 2.) The GSA's arbitrary rejection of USGS Scenario 6 effectively takes usable water out of production by regulation, adversely affecting the AAWARE members' water rights and land use. By requiring water users to operate so significantly under the Basin's total average natural recharge (which is less than sustainable or safe yield under the Basin's developed condition), the GSP constitutes a major change in overlying parties' water rights, in violation of SGMA. (Wat. Code, §§ 10720.1(b), 10720.5(a), (b); Peabody v. City of Vallejo (1935) 2 Cal.2d 351, 376 [requiring water to be unused and flow to the bay in order to make insubstantial contribution to underground supply of land held to be a great waste for small benefit].)

3. The GSP's Incorrect Adoption of Natural Surface Recharge as the "Sustainable Yield" Violates SGMA's Requirement to Consider All Beneficial Uses and Users.

SGMA requires that the GSP "consider the interests of all beneficial uses and users of groundwater," including holders of overlying rights. The requirement was amended last year to expressly require the GSA to consider the interests of farmers holding overlying groundwater water rights. (Water Code section 10723.2(a)(1), as amended by Assembly Bill 321, effective January 1, 2018.) The GSP <u>fails to consider or even mention the interests of private overlying farmers or other private groundwater users</u> in its explanation of why it sets the "sustainable yield" significantly below the Basin's combined average annual natural recharge of approximately 7,100 AFY:

Recharge in the basin is bimodal, with the majority of recharge occurring on decadal basis in a few very wet years. Most years have significantly less natural recharge than the average. Given that this bimodal pattern introduces a level of uncertainty regarding the actual amount of recharge that could occur over the next 20 years, the GSA has determined that a target pumping rate of 5,700 AFY by 2040 would be consistent with the GSP sustainability goal (discussed in Chapter 3). (GSP, p. 2-81.)

The "bimodal recharge" pattern is a function of desert environments. Multiple successive wet years will provide more than average recharge, and multiple successive dry years will provide less than average recharge. With no supplemental source of water, water users in the Basin (including overlying agriculture) will necessarily rely upon infrequent large recharge events to provide a steady source of banked supply during the more frequent dry seasons. Over a long period of time, wet and dry cycles will produce an average recharge. The USGS's full model simulation considered a 60-year period, 1929 to 2010. (See, Exhibit 2, 2015 USGS Model Report, p. 79.) The average annual natural recharge estimates from Appendix A of the Dudek Model Update are based on an 80-year period of record (7,040 AFY) and 65-year period of record (6,881 AFY), which are more than sufficient to account for hydrologic cycle variability. (See, Exhibit 6, 2019 Thomas Harder Letter Report, p. 4.)

The GSP's statement about bimodal recharge fails to explain the undesirable result, if any, that would result from a pumping target based upon the 7,100 AFY combined average annual natural recharge or the 7,824 AFY USGS Scenario 6 pumping target. By omitting a very significant amount of natural underflow into the Basin (1,400 AFY, which is 20% of the Basin's total 7,100 AFY average natural recharge), the GSP fails to rely on the best available information and science about the Basin's natural recharge in both the USGS model and the Dudek Model Update. (23 Cal. Code Regs., § 354.18(e).) The USGS's evaluation of sustainable yield (Scenario 6, which evaluates total production of 7,824 AFY), appropriately relies on the best available science, taking into account not only the natural surface recharge and underflow, but also return flows from irrigation. The GSA ignores and effectively rejects USGS Scenario 6 without substantial evidence or explanation, arbitrarily reducing the sustainable yield and taking usable water out of production by regulation.

B. THE GSA FAILED TO ALLOW FULL PARTICIPATION BY PRIVATE WATER USERS INCLUDING AGRICULTURAL USERS AND FAILED TO CONSIDER THEIR INTERESTS IN PREPARING THE GSP.

1. The GSA Did Not Involve Beneficial Users in the Development of the GSP's Sustainability Measures.

SGMA requires that the GSA provide a written statement that commits to the manner in which interested parties may participate in the development and implementation of the GSP. (Wat. Code, § 10727.8(a).) The GSA must follow the commitment set forth in that statement for involvement of beneficial users. (23 Cal. Code Regs., § 354.10.) Given the mandate that the GSA consider the interests of all beneficial users and uses of groundwater (including farmers) (Wat. Code, § 10723.2(a)(1)) and the legislative intent to preserve water rights in the development and implementation of the GSP (Wat. Code, §§ 10720.1(b), 10720.5(a), (b), this commitment is crucial.

Beneficial user input into the development of GSP sustainability measures is critical to the GSP process and to the protection of overlying water rights. (Wat. Code, §§ 10720.5, 10723.2, 10727.8(a); 23 Cal. Code Regs., §§ 354.10, 354.26(b)(3), 354.28(b)(4).) Contrary to the requirements of SGMA and the Advisory Committee Bylaws (GSP, Appendix BA, p. 1), development of the GSP was reduced to a top-down process where GSP proposals were developed by the Core Team and selectively reported to the Advisory Committee members and affected private water users. In some cases, relevant information was withheld from the Advisory Committee and the affected water users (including AAWARE members), depriving them of a meaningful opportunity to evaluate potential impacts to their interests and provide input into the GSA's decisions such as the GSP management proposals. (23 Cal. Code Regs., § 354.10.) Specifically, the GSA failed to comply with the process required to develop the GSP by:

- Witholding the Dudek Model Update until after publication of the draft GSP and failing to timely provide related information required for the Advisory Committee, the affected water users and their technical consultants' meaningful comment on the technical foundation of the GSP;
- Witholding key documents cited in GSP even after publication of the GSP under the "deliberative process privilege" exemption, including the Planning, Permitting and Ordinance Review Technical Report (referenced at GSP p. 4-38) and Working Draft Financing Plan (referenced at GSP pp. 5-9, 5-10);
- Relying on 2018 ENSI Report that miscalculates the Basin's combined annual natural recharge, and misrepresenting to the Advisory Committee and affected water users that the total yield is 5,700 AFY;
- Failing to post agenda materials, including but not limited to information about the proposed contents of the GSP, in advance of Advisory Committee meetings;
- Failing to respond to comment letters submitted by private water users during the Advisory Committee process;

- Proposing management programs that target agricultural land and water use without input by the affected agricultural water users; and
- Proposing financing mechanisms that are not feasible and will have the effect of eliminating beneficial agricultural use.

In the months preceding publication of the draft GSP, the technical consultants advising the GSA repeatedly misinformed the Advisory Committee members, the public and the private water users' technical consultants that the average annual natural recharge of the Basin totals 5,700 AFY. The District's consultant, Environmental Navigation Services, Inc. ("ENSI"), incorrectly represented the total 65-year average natural recharge to the Basin to be 5,700 AFY per the 2015 USGS Report, comprised of 1,400 AFY groundwater inflow and 4,300 AFY surface water recharge. (See, Exhibit 17, September 2018 report entitled "Methodology to Examine Future Groundwater Overdraft in Terms of the Overall Hydrologic Water Balance Considering Recharge Variability and Parameter Uncertainty" ("2018 ENSI Report"), p. 7.) To the contrary, the 2015 USGS Model Report estimated the total average natural recharge to the Basin at approximately 7,100 AFY, comprised of 1,400 AFY underflow into the Basin plus 5,700 AFY surface recharge. (See, Exhibit 2, 2015 USGS Report p. 2; GSP pp. 2-80 – 2-81; See also, Exhibit 3, Wagner & Bonsignore Letter Report, p. 2; Exhibit 6, Thomas Harder Letter Report p. 7.) ENSI mistakenly subtracted the 1,400 AFY underflow from the 5,700 AFY surface recharge instead of adding the two together. (Exhibit 17, 2018 ENSI Report, p. 7.) As a result, the ENSI Report misrepresents the Basin's total average natural recharge to be 20% lower than the 2015 USGS Model Report.

The misleading information on the Basin's average natural recharge was particularly impactful given that the purpose of ENSI's examination was to address concerns about potential impacts on the District's ability to produce drinking water and related increase in water production costs should the target pumping rate fail to achieve the SGMA-mandated sustainability goals. (Exhibit 17, 2018, ENSI Report, p. 1.) The 2018 ENSI Report further explains that "subsequent analyses are in process that will build from this Report to examine the effect of overdraft on BWD supply well production rates and water quality". (Exhibit 17, Cover letter to the District's General Manager.) The GSP relies on the incorrect 2018 ENSI Report for the Plan Area and Basin Setting and Sustainability Management Criteria (see GSP pp. 2-87, 3-48), and includes a subsequent ENSI study dated December 7, 2018, entitled "Water Quality Review and Assessment: BWD Water Supply Wells" that may have been one of the "subsequent analyses" that built upon the incorrect 2018 ENSI Report (see, GSP Appendix D2). The Advisory Committee members and the public were incorrectly informed that the pumping levels in the 2015 USGS model's Scenario 6 would so far exceed the Basin's natural recharge that it would not meet SGMA's sustainability requirements. (See, for example, Exhibit 11, August 2018 Advisory Committee Minutes, p. 3; Exhibit 17, 2018, ENSI Report, p. 18.)

The GSA relied in part on the incorrect ENSI analysis in picking the 5,700 AFY target pumping rate as the Basin's sustainable yield and effectively rejecting the USGS Scenario 6. (See, GSP pp. 2-87, 3-48, 3-49.) At the August 31, 2018, technical meeting among the technical consultants advising the GSA, AAWARE and T2 Borrego, the GSA incorrectly said that the Dudek Model Update was using the 2015 USGS model and assumptions and was only updating

the model to the period beyond 2010. However, the draft GSP published months later disclosed that, in setting the sustainable yield at 5,700 AFY, the Dudek Model Update excluded the 1,400 AFY average natural underflow recharge that had been included in the 2015 USGS Model inputs. (See, Exhibit 2, 2015 USGS Model Report p. 118; GSP pp. 2-80 – 2-81; see also, Exhibit 3, Wagner & Bonsignore Letter Report, p. 2; Exhibit 6, Thomas Harder Letter Report p. 7.) The erroneous information was unable to be discovered by the affected water users and unable to be corrected during the Advisory Committee process because the GSA purposely withheld the Dudek Model Update from public review until the draft GSP was published.

The August 2018 technical meeting was held at the request of AAWARE and T2 Borrego so that the GSA's engineering consultants could provide them with information needed for AAWARE and T2 Borrego to provide meaningful information for the Dudek Model Update, its inputs and the sustainability criteria. At a subsequent Advisory Committee meeting, the GSA announced that what it provided at the technical meeting was merely information that could be found on the GSA website, and not the technical information that had been requested. (See, Exhibit 11, October 4, 2018, Advisory Committee Minutes, p. 2.)

The GSA also withheld the Dudek Model Update from public review until the draft GSP was published for public comment, claiming the "deliberative process" exemption from the Public Records Act. Upon publication of the draft GSP, AAWARE and T2 Borrego scheduled two technical meetings for the technical consultants to discuss the model, data and model runs with the GSA during the public comment period. (See, Exhibit 12, March 22, 2019, email exchange to schedule technical meetings during GSP public comment period.) The information learned from the subsequent technical meetings and from the GSP is that the GSA had a predetermined result to use the USGS natural surface recharge number of 5,700 AFY as the "sustainable yield," and that the GSA only performed model runs at that 5,700 AFY number. No other forward projection runs were performed at higher pumping rates. (See, GSP pp. 3-20, 3-21 ["All of the simulations are based on the target pumping rate of 5,700 AFY being achieved in year 20 of GSP implementation."], 3-61 (Figure 3.3-2); Exhibit 3, 2019 Wagner & Bonsignore Letter Report, pp. 1-2; Exhibit 6, 2019 Thomas Harder Letter Report, p. 7.) Because the GSA only studied its predetermined result of a 5,700 AFY "sustainable yield", the Advisory Committee and the affected water users cannot evaluate the maximum pumping that can occur in the Basin without undesirable results, and neither can the County Board of Supervisors or District Board of Directors (in their role as the GSA decision maker) or Department of Water Resources (in its role as the oversight agency). The GSP process was not conducted in a manner to obtain any meaningful input from beneficial users as to sustainable yield components, in violation of SGMA requirements for beneficial user participation in the development of those sustainable yield components. (Wat. Code, §§ 10723.2, 10727.8; 23 Cal. Code Regs. §§ 354.10, 354.26(b)(3), 354.28(b)(4).)

Dudek told AAWARE's technical consultants that it was prevented from modeling other target pumping rates for the Basin due to budget and scoping constraints. (See, <u>Exhibit 3</u>, Wagner & Bonsignore Letter Report, pp. 1-2.) However, as discussed above, the County/Dudek GSP contract tasked Dudek with running predictive simulations to determine sustainable yield for the Basin. <u>In order to comply with SGMA requirements to use the best available science and</u>

information (23 Cal. Code Regs., § 354.18(e)), the GSP should provide at least one additional model run at the 7,100 AFY combined average annual natural yield.

Additionally, the Advisory Committee process was reduced to a top-down process with the Core Team developing GSP components and reporting only some of them to the Advisory Committee. A review of the agendas for the GSA reveal <u>only two items that came up for Advisory Committee input, neither of which were GSA sustainability measures</u>: (1) metering of agricultural wells; and (2) allocation of base production rights. (See, <u>Exhibit 7</u>, November 27, 2017 Advisory Committee Agenda Excerpts.) As shown by the GSA website, the <u>GSP sustainability measures were rolled out to the Advisory Committee for review only at the very end of the Advisory Committee Process in October 2018, after the GSA's consultant <u>had completed their model testing and developed the sustainability measures</u>. (See, <u>Exhibit 8</u>, website screenshot page 4; <u>Exhibit 9</u>, Advisory Committee Agenda Reports for GSP Rollout Oct. 2018, Nov. 2018 and Jan. 2019.) As discussed above, at that time, the Advisory Committee members were misinformed as to the Basin's natural recharge.</u>

Additionally, the Advisory Committee agendas published in advance of the meetings did not contain attachments. The substance of the GSP text was not provided to the Advisory Committee members prior to the meetings, but instead Advisory Committee members were simply presented with a power point presentation on the spot at the meetings, with no opportunity to meaningfully review, consider and provide input into the GSP's contents. The power point presentations were not posted on the GSA's website until several days following the meeting, generally only in time for the subsequent meeting, thereby preventing timely and meaningful input by the affected water users into the GSP's development. (See, Exhibit 11, August 29 and October 3, 2019 letters to Jim Bennett and Geoff Poole.)

After publication of the Draft GSP, information necessary for AAWARE's technical consultants to understand and comment on the Dudek Model Update during the 60-day public comment period was requested at the April 26, 2019 technical meeting. (See, Exhibit 5, April 26, 2019, Transcript, pp. 13:18-25, 25:23 – 26:3.) The GSA committed to provide the requested information at the May 10, 2019 technical meeting. (See, Exhibit 5, Transcript, p. 69:24 – 70:5.) However, the information was not provided at the May 10 meeting. The requested information was provided at the close of business on May 16, 2019, just two business days before the close of the comment period on the draft GSP. (See, Exhibit 16, May 16, 2019, Calibration Wells Correspondence and Documents.)

Additionally, the GSA continues to withhold information cited in the GSP upon which the proposed management programs are based, including the Planning, Permitting and Ordinance Review Technical Report (referenced at draft GSP p. 4-38) and the Working Draft Financing Plan (referenced at GSP pp. 5-9, 5-10). (See, Exhibit 10, March 29, 2019, email denying AAWARE's request for these documents.) Additionally, the GSP references Le Sar Development Consultants' work on matters including economic impacts (GSP p. 2-30), but there is no report included in the GSP.

The GSA did not provide the Advisory Committee or beneficial users "balanced objective information" in a timely manner as necessary to assist in their understanding the Dudek Model "Update" to the USGS model, water budget or development of sustainability measures, did not involve or collaborate with the Advisory Committee in determining which sustainability measures to include in the GSP, and did not consult with the Advisory Committee or agricultural users targeted by the sustainability measures. <u>In fact, the GSA provided incorrect information about the Dudek Model Update and withheld Dudek's model report dated December 2018 from public disclosure until the GSP was published months later.</u>

The requested information should be provided to the public, and the public comment period should be reopened to allow a meaningful opportunity to review the information as necessary to comment on the Dudek Model Update.

Additionally, to avoid future dissemination of misinformation and ensure that the affected private water users receive relevant information about GSA matters potentially affecting their interests in a timely manner, AAWARE urges the GSA to establish a permanent Technical Advisory Committee process as part of the GSA's governance structure with authority to analyze and make recommendations on matters including specific yield, mountain front underflow and flux into the Basin across the Coyote Creek fault, and agricultural and recreational irrigation return flows; evaluating the feasibility of importing groundwater; advising on development of any Water Quality Optimization, Intra-Basin Water Transfers and General Plan Update proposed in the draft GSP; sustainable yield; scope of work and budget for technical work; rampdown; and any other matters to be approved by the GSA.

2. The Manner in Which the GSP Was Developed Violates the AAWARE Members' Constitutionally-Protected Substantive and Procedural Due Process Rights.

The GSA's failure to objectively evaluate sustainable yield scenarios violates the AAWARE members' Constitutionally-protected substantive and procedural due process rights by withholding from the Advisory Committee, County Board of Supervisors, District Board of Directors and DWR relevant information that is contrary to the GSA's arbitrary decision that the sustainable yield should be equal to the natural surface water recharge.

Further, the GSA's withholding relevant information cited to and relied upon in the GSP denies the AAWARE members a meaningful opportunity to evaluate the potential impacts to their interests from the GSP's incorrect determination of sustainable yield included in the draft GSP during the public comment period. These errors and omissions preclude the GSA from considering the agricultural water users' interests in violation of SGMA. (Wat. Code, § 10723.2.)

C. THE BASIN SETTING CONTAINS IMPROPER ANALYSES CONTRARY TO BEST AVAILABLE DATA AND SCIENCE.

1. The Analysis of How Groundwater Sustainability Will Affect General Plans is Flawed and Improperly Favors Expanding Municipal Use Over Existing Agricultural Use.

SGMA requires that the GSP provide a description of the consideration given to general plans and an assessment of how the GSP may affect those plans. (Wat. Code, § 10727.2(g).) The GSP describes how the current General Plan allows for as many as 11,689 total housing units, which would equate to 5,844.5 AFY for just residential use. (GSP, p. 2-19) Thus, without any subdivision permitting, the residential water use alone would exceed the GSP's "sustainable yield" of 5,700 AFY. The GSP concludes that the existing General Plan land use designations and policies allow for growth and promote agricultural conservation in a manner that may be inconsistent with the sustainability criteria, pumping reduction program and agricultural land fallowing program described in Chapters 3 and 4. (GSP, p. 2-20.) Of course, the GSA needs to consider all beneficial users, and not favor any particular class of beneficial use. (Wat. Code, 10723.2.)

One of AAWARE's concerns is the statement in the GSP that "Supporting continued agricultural operations in Borrego Valley may be inconsistent with the goal of reducing groundwater demand". (GSP, p. 2-22, Table 2.1-6; See also p. 2-23.) The data presented in the GSP indicates that a significant reduction in agricultural water use is needed, and AAWARE's members are already undertaking measures to reduce their water production. However, there is no evidentiary support in the GSP for the conclusion that agricultural operations must be eliminated in order to achieve groundwater sustainability. In fact, the 2015 USGS study concluded that sustainability can be achieved with a 60% reduction in then-current agricultural pumping (13,162 AFY). (See, Exhibit 2, 2015 USGS Model Report, pp. 4, 122, Table 20 (Scenario 6).) (Using the USGS methodology, the required reduction would be slightly higher under the GSP totals of 15,729 AFY total agricultural Baseline Pumping Allocation, and 14,767 AFY total current agricultural production. (See, GSP p. 2-26, Table 2.1-7).)

Because the GSP cites to a "Planning, Permitting and Ordinance Review Technical Report" (referenced at draft GSP p. 4-38), AAWARE requested a copy of that document as necessary to evaluate and comment on the GSP's analysis of how the General Plan's agricultural policies and land use designations would be affected. However, the GSA denied AAWARE's request for a copy of the report. (See, Exhibit 10, March 29, 2019 [email denying AAWARE's request for the report].) By withholding relevant information relied upon in the GSP about how it would affect the General Plan's agricultural policies and land use designations, the GSA has deprived AAWARE members of a meaningful opportunity to provide input on whether and how the purported General Plan inconsistencies and potential amendments could affect their interests. Additionally, the GSP's General Plan discussion evidences the GSA's intentions to disfavor agricultural uses in implementing the GSP. As a result, the County Board of Supervisors and District Board of Directors (in their role as the GSA) are unable to carry out their obligation to consider the interests of agricultural water users in violation of SGMA. (Wat. Code, § 10723.2.)

2. The Basin's Groundwater Quality Does Not Violate Sustainability Indicators, and the GSP's Extensive Groundwater Quality Monitoring Does Not Appear to be Warranted.

SGMA authorizes GSAs to adopt programs to avoid undesirable results, not to "optimize" water quality. SGMA only requires water quality monitoring as a component of a GSP "as applicable to the basin." (Wat. Code, § 10727.2(d).) SGMA indicates that water quality monitoring may only be necessary where groundwater quality degradation is created by extraction of groundwater or will affect the supply and beneficial uses of groundwater. (Wat. Code, § 10727.2(d)(2); 23 Cal. Code Regs., § 354.16(d).)

The GSP discussion on groundwater quality concludes: "In general, water quality has historically been good within BWD's wells with TDS at concentrations of less than 500 mg/l." (GSP, p. 2-62.) Wells with nitrate issues are located down gradient from Rams Hill and percolation ponds at the BWD water treatment plant. (GSP, p. 2-63.) There are no discernable trends of water quality degradation of any constituent. (GSP, p. 2-62 to 2-63.) The primary concern is that decreased groundwater levels could induce flow of poor quality water. (GSP, p. 2-63.) That concern can be addressed more appropriately by minimum thresholds for groundwater levels already in place to address chronic lowering of groundwater levels. (23 Cal. Code Regs., § 354.28(d).)

Additionally, the GSP includes incorrect information about exceedances of nitrates. The GSP incorrectly says that "historical exceedances of nitrate concentration have occurred in five wells in the vicinity of Henderson Canyon Road in the northern part of the valley, adjacent to areas of agricultural use"; that one District well in the northern area shows an increasing nitrate trend; and that four wells in the northern area had to be taken out of potable service due to elevated nitrate. (GSP, pp. 2-57, 2-62, 3-12.) In response to AAWARE's question for additional information, the GSA responded that only one of the District's wells (ID4-4) is located in the northern management area and was drilled deeper to avoid nitrate. (See, Exhibit 10, March 29, 2019, email and Attachment A.) Additionally, the December 7, 2018 ENSI report entitled "Water Quality Review and Assessment: BWD Water Supply Wells" (GSP Appendix D2, p. 66) says that nitrate occurs in all of the active BWD wells at varying concentrations well below the maximum contaminant level ("MCL") for nitrate. The GSP should be corrected accordingly.

The data simply does not indicate a potential undesirable result supporting the expansive "Water Quality Optimization Program" as part of the GSP. The GSA's \$124,000 cost to develop the program elements (not including the implementation costs) should be reviewed through the Technical Advisory Committee process. Without a publicly-available itemization of the GSA's costs, program elements such as the new District well and pipeline referenced in the Water Quality Optimization Program (GSP p. 4-32) give the appearance of being District transmission system upgrades inappropriately subsidized by private well owners who are not connected to the District's system.

The GSP's Water Quality Optimization Program, its potential impacts on the interests of agricultural water users and its costs should be evaluated through the Advisory Committee and Technical Advisory Committee before the GSP is approved.

Also, in addition to noting agricultural amendments and septic systems as potential sources of nitrates in the Basin (GSP pp. 2-56, 2-57, 3-12), the GSP should discuss the District's sewage spreading ponds. (Wat. Code, § 10727.4.) Sewage collected by the District is treated at the Ram's Hill Waste Water Treatment Plant ("WWTP") and then spread to evaporation/percolation ponds. Sludge from the WWTP is discharged to on-site drying beds for stabilization and removed every four to five years for off-site disposal. (See, Exhibit 18 [excerpts from the District's website, October 2007 San Diego County Local Agency Formation Commission Borrego Valley Municipal Service Review & Sphere of Influence Update, and August 2017 Colorado River Basin Regional Board Water Quality Control Plan].) The GSP's steps to fill data gaps (GSP p. 3-47) should objectively evaluate all potential sources of nitrates in the Basin, not focus on agricultural fertilizer application alone.

3. The Dudek Model Update and Water Budget Calculations Are Not Based on Best Available Science and Ignore Information That Contradicts the Pre-Determined Result.

The foundation of the basin setting is a description of groundwater conditions in the basin and a water budget that is based on the best available information and best available science. (23 Cal. Code Regs., § 354.16.) The Dudek Model Update begins with a description of water demand for the last ten years that outflows are 20,000 AFY and inflows are 5,000 AFY. That description is contradicted by the best available science and information set forth in the GSP, as follows:

- Groundwater inflow across the Coyote Creek fault was estimated to be as high as 3,200 AFY based on a scientific electrical resistivity study, but was dismissed because it was based on "limited data" and "inconsistent with the BVHM model assumption" of a no flow boundary. (GSP, p. 2-42) The GSP's stated reasoning for dismissing the scientifically demonstrated inflow and not accounting for any of it is not based in science: "The GSA does not consider this a critical data gap because historical groundwater levels and trends suggest the flux would be into the Subbasin rather than out of the Subbasin." (GSP, p. 2-42.)
- Despite actual testing of return flows from irrigation at 22% and golf course at 14% (GSP, p. 2-46), assumptions are made regarding efficiency and a dry saturated zone (despite years of continual watering) to reduce those amounts in the incorrect 2018 ENSI Report discussed above. (GSP, p. 2-75; and Exhibit 17.)
- A mere six year period was used to "validate" the Dudek Model Update. (GSP, p. 2-72.)
- The Dudek Model Update, using only six years of data, finds only 3,905 AFY of surface recharge to the Basin (GSP, p. 2-73), yet the water budget agrees with the 2015 USGS Report's surface recharge amount of 5,700 AFY rather than the Dudek Model Update amount. (GSP, p. 2-80.) The 2015 USGS Report, based on 70 years of data, is the best available scientific data to use.

- The Dudek Model Update confirms natural underflow recharge to the Basin averages 1,400 AFY in addition to the 5,700 AFY surface recharge. (GSP, p. 2-76.) Yet, the GSP throughout claims that only 5,700 AFY is available for natural recharge and incorrectly calculates overdraft and loss in storage based solely on the 5,700 AFY amount. (GSP, pp. ES-3, 2-34, 2-80, Tables 2.2-9A, 2.2-9B; See also, Exhibit 17, p. 7.) The GSP effectively ignores the underflow as part of the "sustainable yield" despite the science substantiating this information. (GSP, p. 2-61.)
- The Dudek Model Update results "underestimate hydraulic heads," which "may be the result of the model simulating too much pumping compared to actual usage, or underestimating storage values like specific yield for the upper aquifer, or underestimating the amount of recharge to the BVGB, or a combination of all three." (GSP, p. 2-79.)

To summarize, the GSP fails to take into account demonstrated Coyote Creek inflow, demonstrated recharge from underflow and demonstrated irrigation return flows. The GSP uses a much different sustainable yield number than from the accepted scientific methods of the USGS Report, with the effect of overestimating overdraft, underestimating sustainable yield and underestimating groundwater in storage. This violates the SGMA requirements for water budgets. (23 Cal. Code Regs., §§ 354.18(b) [estimates based on direct measurements or data], (c)(3) [projected hydrology to utilize 50 years of historical information for estimating future hydrology].)

The Basin Setting also should include information about the significant amount of groundwater in storage in the Basin. The District previously relied upon that storage as a basis for tempering drought water restrictions and cutbacks. (See, GSP Appendix D2, p. 10; see also, District's report to State Water Resources Control Board at https://www.waterboards.ca.gov/water-issues/programs/conservation-portal/conservation-report-ing.html#smallsupplier under January 5, 2016 State Water Resources Control Board Small Supplier Report Dataset, Row 131, Column Q [Basin contains at least a 50 year supply of groundwater in the uppermost of three aquifers].)

D. THE SUSTAINABILITY MEASURES ARE NOT SUPPORTED BY DATA FROM THE BASIN SETTING AND DO NOT CONSIDER BENEFICIAL USES.

1. The Minimum Thresholds are Not Justified by Supporting Information in the Basin Setting and are Without Input and Consideration of Beneficial Interests and Property Owners.

Minimum thresholds must be based on supporting information in the basin setting and data and models and must consider the effect on beneficial users and property interests. (23 Cal. Code Regs., § 354.28(b)(1) & (4).)

For the chronic lowering of groundwater sustainability indicator, the minimum threshold must be a groundwater level based on the historical rate of groundwater decline for projected water use and type. (23 Cal. Code Regs., § 354.28(c)(1).)

For the reduction of groundwater in storage sustainability indicator, the minimum threshold should be the total volume of water that can be withdrawn from the Basin without undesirable results, as supported by the sustainable yield of the Basin, but groundwater levels may be a proxy. (23 Cal. Code Regs., § 354.28(c)(2), (d))

For water quality sustainability indicator, the minimum threshold should be the degradation of water quality, but groundwater levels may be a proxy. (23 Cal. Code Regs., § 354.28(c)(4), (d).)

The GSP selects as the minimum thresholds for all three sustainability indicators: "maintaining groundwater levels above saturated screen intervals for pre-existing municipal wells during an anticipated multi-year drought circumstance". (GSP, p. 3-17; GSP, p. 3-23 ["use of GWEs at the cross section of wells outlined in Table 3-4 and Table 3-5, are also appropriate minimum thresholds for the following sustainability indicators: groundwater storage, groundwater quality degradation, and depletion of interconnected surface waters"].) There is no explanation of how those well levels are based on the historical rate of groundwater decline for projected water use and type. (23 Cal. Code Regs., § 354.28(c)(1).)

Those groundwater levels appear not to be based upon the point at which groundwater decline would halt, but instead are based upon the Dudek Model Update model run of the pre-determined "sustainable yield" of 5,700 AFY which, as previously explained, is not the maximum quantity in which the Basin can be operated given current inflows and operation of the Basin. (GSP, pp. 3-20, 3-21 ["All of the simulations are based on the target pumping rate of 5,700 AFY being achieved in year 20 of GSP implementation"].)

At least one additional model run should be provided to evaluate target pumping at the total natural recharge of 7,100 AFY to determine whether sustainable yield can be reached at or above that level, as indicated by the data in the 2015 USGS Report and Dudek Model Update. (23 Cal. Code Regs., § 354.26(c).) The groundwater levels chosen according to pre-determined "sustainable yield" were made without consideration of whether the overlying agricultural use can sustain the impact of reducing production well below the Basin's natural recharge. (Wat. Code, § 10723.2; 23 Cal. Code Regs., § 354.28(b)(4).)

2. The GSP Reversed the SGMA Process of Determining Undesirable Results Based Upon Exceedances of Minimum Thresholds and Instead Pre-Determined the Undesirable Results to Back Into Minimum Thresholds Through Modeling of the Incorrect "Sustainable Yield".

As minimum thresholds are developed for particular uses and locations, the exceedance of those minimum thresholds in a quantitative manner that causes significant and unreasonable effects in

the Basin (taking into account potential effects on beneficial users and property owners) is what should be determined as the unreasonable result. (23 Cal. Code Regs., § 354.26(b)(2)-(3).)

The GSP carries out this process in reverse. It works backwards to establish what is the "sustainable yield" and then conducts model runs accordingly. (GSP, pp. 3-10 to 3-12.) There is no discussion in the GSP about how the undesirable results were obtained by a quantitative analysis of "minimum threshold exceedances (i.e., groundwater levels) that cause significant and unreasonable effects in the basin." (23 Cal. Code Regs., § 354.26(b)(2).)

3. The GSP Mischaracterizes and Confuses the Sustainability Goal by Treating the Goal as Sustainable Yield; The GSP Mischaracterizes and Treats Natural Recharge of Surface Water as the "Sustainable Yield".

The sustainability goal refers to the implementation measures targeted to ensure that the Basin is operated within its sustainable yield. (Wat. Code, § 10721(u).) "SGMA does not incorporate sustainable yield estimates directly into sustainable management criteria. Basinwide pumping within the sustainable yield estimate is neither a measure of, nor proof of, sustainability. Sustainability under SGMA is only demonstrated by avoiding undesirable results for the six sustainability indicators." (DWR, Draft Sustainable Management Criteria, p. 32 [emphasis added].) "The key to demonstrating a basin is meeting its sustainability goal is by avoiding undesirable results." (DWR, Draft Sustainable Management Criteria, p. 33 [emphasis added].)

In direct contradiction of the DWR guidance and SGMA definition for sustainability goal, the GSP adopts as one of its sustainability goals groundwater use within the sustainable yield. (GSP, p. 3-4.) As explained previously, the GSP errs in treating only natural surface water recharge (5,700 AFY) as the "sustainable yield" without any supporting evidence and despite conceding that the combined natural recharge (including underflow) is 7,100 AFY. The GSP incorrectly establishes a sustainability goal at far less than the sustainable yield based on an incomplete natural recharge rate that neglects to include 1,400 AFY of underflow into the Basin.

As discussed above, the GSP's sustainability goal with respect to groundwater quality exceeds the GSA's authority under SGMA by seeking to maintain or improve groundwater quality for transition to future municipal use (GSP, p. 3-4), rather than protect against groundwater quality degradation that impairs water supplies (Wat. Code, \S 10721(x)(4)).

4. The GSP Measurable Objectives Violate SGMA by Using Different Metrics From Those Used to Define the Minimum Thresholds and by Failing to Provide a Reasonable Margin of Operational Flexibility.

SGMA requires that measurable objectives be based on quantitative value using the <u>same</u> <u>metrics and monitoring sites</u> as are used to define the minimum thresholds. (23 Cal. Code Regs., § 354.30(b).) The measurable objectives must provide a reasonable margin of operational

flexibility under adverse conditions which take into account historical water budgets, seasonal and long-term trends and periods of drought commensurate with levels of uncertainty. (23 Cal. Code Regs., § 354.30(c).)

The GSP violates SGMA by creating a new measurable objective of production reductions that was not the metric used to define the minimum thresholds and does not use the monitoring sites that are used to measure the minimum thresholds. (GSP, pp. 3-31 to 3-34.) The GSP attempts to justify the different measurable objective by claiming that the linear reduction of production was the input for the Dudek Model Update, as if that linear input somehow defines sustainable yield or somehow displaces the metric of groundwater levels. (GSP, pp. 3-31 to 3-32.)

Far from providing a reasonable margin of operational flexibility, by ratcheting down production to a level significantly below the Basin's natural recharge, the proposed production reductions of 74% of current production will needlessly impair the interests of water users. Production reductions should be triggered by failure to meet groundwater elevation measurable objectives, and unless the GSA demonstrates undesirable results would occur, should have the operational flexibility of the sustainable yield, which the 2015 USGS Report estimated at 7,824 AFY.

E. THE GSP'S PROJECTS AND MANAGEMENT ACTIONS EXCEED SGMA AUTHORITY TO ACHIEVE THE SUSTAINABILITY GOAL FOR THE BASIN.

Project and management actions must achieve the sustainability goals for the Basin. (23 Cal. Code Regs., § 354.44(a).) The GSP must quantify the measurable objectives under the sustainability components that the projects and management actions are expected to meet. (23 Cal. Code Regs., § 354.44(b)(1).)

The GSP must describe the circumstances under which the projects and management actions must be implemented (i.e., the criteria that triggers implementation and termination of the projects and management actions). (23 Cal. Code Regs., § 354.44(b)(1)(A).)

If overdraft conditions exist, the GSP must describe management actions (and quantify the demand reduction they will achieve) to mitigate overdraft. (23 Cal. Code Regs., § 354.44(b)(2).)

Because the sustainability goal statement inappropriately uses "sustainable yield" as a sustainability goal, it creates additional confusion when evaluating whether projects and programs will achieve the sustainability measures. The sustainability goal must match the sustainability measures, which for all of the sustainability indicators are groundwater levels. Thus, in order to qualify as GSP projects or management actions, they must achieve quantifiable sustainability objectives. (23 Cal. Code Regs., § 354.44(b)(1).)

<u>Management Action No. 1—Water Trading Program</u>. The high cost of developing the Water Trading Program (\$122,000 for "planning level development") is unreasonable in light of the fact that there are only a few dozen non-de minimis well owners in the Basin. <u>To minimize costs, the Technical Advisory Committee process should be used to solicit bids from</u>

qualified engineering firms to act as a clearinghouse for willing buyers and sellers before GSP approval.

<u>Management Action No. 2—Water Conservation Program</u>. The GSP's Water Conservation Program would consist of separate components for the agricultural, municipal and recreation sectors. The primary element of the agricultural conservation program will be water audits to be performed by the GSA or third party contractors which may have the following components:

- Pre-audit analysis of historical water use, topography, climate data and land use;
- Analysis of distribution uniformity (amount of water supplied by irrigation system to each plant), crop density and crop types;
- Analysis of irrigation efficiency (amount of water used beneficially by crop compared to total water applied);
- Analysis of soil grain size and texture, agronomic soil suitability including salinity, drainage and water retention properties;
- Analysis of irrigation system water use efficiency, pressure and maintenance;
- Pesticide and fertilizer application and use;
- A report containing recommendations for improving efficiency and crop yield; and
- Follow up analysis of measures implemented actions/practices and savings obtained.

(GSP pp. 4-11 – 4-12.) The estimated agricultural water savings totals 365 AFY. (GSP p. 4-15.) The estimated cost to develop the program is approximately \$130,000. (GSP p. 4-19.) The Agricultural Water Conservation Program should be evaluated through the Technical Advisory Committee process after water meters are installed and the level of agricultural water savings to date is evaluated. The program as described would be highly intrusive and must be voluntary.

Management Action No. 3—Pumping Reduction Program. The Pumping Reduction Program (GSP pp. 4-20 – 4-24) would require each well owner to incrementally reduce Baseline Pumping Allocations to reach the estimated sustainable yield (currently, 5,700 AFY) by 2040. The GSA will consider the adoption of fees and penalties for violations of pumping allowance and/or reporting during the GSA implementation period. Meters would be installed within 90 days of GSP adoption. The area of irrigated land and crop types should also be directly tracked to monitor program effectiveness. It would cost the GSA \$82,000 to develop the Pumping Reduction Program. The Pumping Reduction Program would be implemented once CEQA review of the GSP is completed.

Again, the program amounts to over-regulation. SGMA calls for water users to file an annual statement with the GSA setting forth the total extraction in acre-feet of groundwater during the previous water year. (Wat. Code, § 10725.8(c).) Additionally, AAWARE members who do not already have meters proposed to install their own meters and to have the usage data remotely reported to the GSA. The agricultural well owners are awaiting the GSA's approval of alternative meter technologies and would like to install meters as soon as possible, in advance of GSP approval. (See, Exhibit 15.)

Also, as discussed above, because the Pumping Reduction Program relies upon an incorrect "sustainable yield" that is only the amount of the surface water recharge to the Basin, the program exceeds the GSA's authority under SGMA and interferes with overlying water rights to the sustainable yield. (Wat. Code, §§ 10720.1(b), 10720.5(a)-(b).)

Furthermore, the proposed Pumping Reduction Program describes no criteria that trigger its implementation and termination. (23 Cal. Code Regs., § 354.44(b)(1)(A).) The program must be tied to groundwater level targets, and pumping levels should be set without further reductions once groundwater levels are stabilized. The Pumping Reduction Program should be developed through the Technical Advisory Committee process before the GSP is approved.

Finally, while the GSA recognizes that the pumping reduction program is subject to review and approval under the California Environmental Quality Act ("CEQA," GSP, p. 4-20), the GSA prematurely commits to part of the program in advance of CEQA review, in violation of CEQA. (14 Cal. Code Regs., §§ 15004(b)(2)(B), 15352; Save Tara v. City of West Hollywood (2008) 45 Cal.4th 116, 130-131.)

Management Action No. 4—Voluntary Fallowing of Agricultural Land. The Voluntary Fallowing of Agricultural Land Program would facilitate the conversion of high water use irrigated agriculture to low water use open space, public land or other development on a voluntary basis. Factors that will be considered for the fallowing program include the current extent of agriculture land and water use, the intended land and water use after fallowing, and the potential environmental impacts associated with fallowing (airborne emissions through windblown dust, introduction or spread of invasive plant species, and changes to the landscape that could adversely affect visual quality).

It will cost the GSA \$103,000 to develop the fallowing program. Site stabilization is estimated at \$1,000-5,000 per acre; passive restoration to habitat is estimated at \$10,000-25,000 per acre; active restoration to habitat in a relatively short period of time is estimated at \$25,000-50,000 per acre. (GSP pp. 4-24-4-29.)

The proposed voluntary fallowing program does not directly achieve groundwater level reduction, and its description does not quantify any measurable groundwater level objective under the sustainability components, therefore it does not qualify as a GSP project or management action. Voluntary fallowing in the statute means voluntary and not coerced to make privately owned land suitable for future uses (GSP, p. 4-26 [contemplated conversion of fallowed land to stormwater runoff infiltration project]). (Wat. Code, §§ 10726.2(c), 10720.1(b), 10720.5(a)(b).) A voluntary fallowing program under SGMA would require funding by the GSA as consideration for fallowing the land and covenanting to have it remain fallow, not a penalty in the form of costs to bring the land up to standards for future benefit of others.

Site stabilization for the purposes of avoiding blight associated with dead agricultural vegetation and to reduce potential air quality impacts from wind-blown dust is a County land use concern, not a function of the GSP. Site stabilization on private land should simply consist of destroying the crop on the fallowed portion (e.g., chipped or burned) and

stabilizing the soil (e.g. mulched with the resulting tree crop clippings or ash). The GSA should not obligate private property owners to carry out habitat restoration without just compensation. Any further consideration of the Voluntary Fallowing of Agricultural Land should be conducted through the Technical Advisory Committee process.

Management Action No. 5—Water Quality Optimization Program. As discussed above, the Water Quality Optimization Program has nothing to do with sustainability measures, but instead seeks to benefit future land uses by "optimizing" water quality, for example, by upgrading the District's transmission system with a new well and pipelines in the Northern Management Area (GSP, p. 4-32) to the detriment of overlying agricultural water user interests. (Wat. Code, §§ 10720.1(b), 10720.5(a)(b), 10723.2.) The GSP's Water Quality Optimization Program and its costs should be vetted through the Technical Advisory Committee, and its potential impacts on the interests of agricultural water users should be evaluated before the GSP is approved.

Management Action No. 6—Intra-Subbasin Water Transfers Program. The GSP's Intra-Subbasin Water Transfers Program would convey sub-potable water pumped in one management area to another for sub-potable use. For example, groundwater pumped in the North Management Area, with potentially elevated nitrate levels from irrigation return flow, might be beneficially used to irrigate golf course turf in the Central or South Management Area. If a sizeable area of land were fallowed in the North Management Area, there is the potential to use existing wells to supply water to the Central or South Management Area. It will cost the GSA \$90,000 to develop this program. (GSP pp. 4-34 – 4-38.)

The proposed Intra-Subbasin Water Transfers Program is another example of private water users subsidizing programs that benefit others. The cost of any such transfers should instead be borne by those benefitting from the transfer. As discussed above, there is no data evidencing elevated nitrate levels close to MCL. (See, December 7, 2018, ENSI report entitled "Water Quality Review and Assessment: BWD Water Supply Wells" [nitrate levels in all of the active District are well below the MCL for nitrate.) The GSP's proposed Intra-Subbasin Water Transfers Program could impair the interests of agricultural water users and should be evaluated through the Technical Advisory Committee process before GSP approval.

F. THE ADMINISTRATIVE AND PROGRAM COSTS FAR EXCEED WHAT IS CONTEMPLATED BY SGMA FOR A SMALL BASIN WITH FEW PUMPERS AND INCLUDE COSTS THAT THE DISTRICT IS RESPONSIBLE FOR.

The GSP estimates 20-year implementation costs of \$19.2 million, *not including:* \$652,000 estimated costs required to *develop* (not carry out) the management programs, plus unspecified amounts to pay the District for "internal management and administration" and to reimburse the District "for some of its GSA creation and GSP development related expenses". (GSP, p. 5-8.) The letter from District Director Brecht indicates that the District will seek reimbursement of as much as \$6 million. (See, Exhibit 13, April 4, 2019 letter, p. 1, footnote 1.) **The GSP**

implementation and estimated costs far exceed the ability of the few dozen Borrego Valley well owners to pay.

Of course, it was never the intent of SGMA that the responsibility to pay for public water service provider tasks would be reallocated to private pumpers who are not connected to the water system. It is precisely for those reasons that SGMA expressly places the onus on the public agencies comprising the GSA to meet the costs, and where there are new GSP costs, to fund those costs through pumping assessments. (23 Cal. Code Regs., § 354.6(e).) Many of the District's SGMA-related costs that it seeks to have reimbursed (described in Director Brecht's letter, Exhibit 13) are not properly recoverable under SGMA. (Wat. Code, §§ 10730, 10730.2.) A 2015 memorandum from the District's legal counsel allocates many of those same costs to the District and the County. (See, Exhibit 14, Borrego Water District Board Package October 20, 2015, pp. 5-8.)

The GSP management and administration costs are similarly duplicative of existing District management costs. There is no explanation as to why the District would need to hire two additional full-time engineers when it already has engineering staff. The scope of work required for additional technical staff required to administer the GSP should be developed through the Technical Advisory Committee process to provide input into cost-saving measures. For example, SGMA calls for private well owners to self-report their production to the GSA, so there is no need for the GSA to incur the cost of reading private meters or inspecting private property to confirm acreages and crop types planted. GSA monitoring of groundwater production can be done remotely (see, Exhibit 15, April 26, 2019, Letter to Borrego Valley GSA regarding SWIIM meter systems), and water quality testing and reporting is already undertaken by the District.

SGMA authorizes the GSA to enter into private agreements with private water users to implement the GSP. The Projects and Management Actions shown in Table 5-4 can be met through private agreements with water users.

The infeasibility of the GSP costs is evident when compared with the decision by the GSA members to reject as economically infeasible a \$3.4 million water importation project that would bring substantial amounts of supplemental water to the Basin, compared with the \$20+ million cost of GSA implementation that would be spread among a few dozen well owners.

The infeasibility of the cost is compounded by the GSP's proposed funding structure (GSP p. 5-10) that would impose:

- Monthly fixed charge based on well meter size (i.e., specific "meter fee" based on meter pipe diameter: 0-2 inches, 2-4 inches, 4-6 inches, 6-8 inches, and more than 8 inches), regardless of water usage; and
- Variable pumping fees based on the volume of groundwater extracted (expected to be up to \$50/AF on the initial Baseline Production Allocation) to cover just administrative costs during the first 10 years, not including additional potential fees required for specific projects and management actions to implement the GSP. Because of the steep reduction

in groundwater pumping required to achieve sustainability, the per acre-foot fee will necessarily increase just as sharply to pay the \$20+ million cost.

There is a serious risk that, unless the GSA's costs are checked, the GSP's fixed well meter charges and variable pumping fees will result in the elimination of agricultural land and water use due to inability to pay the needlessly inflated costs.

The method of allocating the GSP costs also was not vetted through the Advisory Committee process and is patently unreasonable for such a small number of water users. In an effort to evaluate the proposal and its potential impacts on beneficial users, AAWARE asked the GSA for a copy of the draft Financing Plan. The GSA rejected AAWARE's request based on the "deliberative process" exemption of the Public Records Act. (See, Exhibit 10, March 29, 2019 email rejecting AAWARE's request.) The GSA's withholding of relevant information prevents a meaningful opportunity for affected private well owners to comment on the GSP's financing plan proposal and evidences the GSA's failure to include AAWARE members and other private water users as part of the deliberative process in violation of SGMA.

Before approving the GSP, it is incumbent upon the GSA to disclose: (1) costs for tasks already covered by the District as the water service provider, and (2) costs beyond the authority of the District and GSA to have reimbursed under SGMA; to deduct those costs from the total; and to coordinate with water users to identify cost-saving measures for the remaining implementing actions. As the 2018 ENSI Report explains, the District is primarily concerned with its ability to produce drinking water and related increase in its water production costs. (Exhibit 17, 2018 ENSI Report, p. 1.) Therefore, the County's active and objective oversight of the administration and program costs is required.

AAWARE asks the GSA to convene the Technical Advisory Committee to provide information on how the funding program affects their interests and recommendations for cost-saving measures to reduce the exorbitant GSP implementation costs.

III. AAWARE COMMENTS ON BASELINE PUMPING ALLOCATIONS.

Certain individual AAWARE members have confidentially submitted groundwater production information pertaining to their individual properties under separate cover letters. Further adjustments and corrections to their respective Baseline Pumping Allocations should be made in accordance with the information submitted by individual AAWARE members. Additionally, all confidential information reported by private water producers must be kept confidential and not disclosed without the well owner's written consent. (Gov. Code, § 6254; Wat. Code, § 10730.8(b) [personal information submitted under SGMA has the same protection from public disclosure as utility customers, including name, address, telephone number and usage data].)

The GSA's Baseline Pumping Allocations are not based on the best available data. According to GSP Appendix F, the GSA calculated agricultural Baseline Pumping Allocations using an Annual Water Use Factor equation. (Appendix F, p. F-3.) AAWARE questions the components of the equation. For example, the equation includes a plant factor determined by the Water Use

Classification of Landscape Species IV methodology which, as its name discloses, is geared toward *landscape* trees rather than commercial agricultural crop-producing trees. (GSP Appendix F, p. F-2, Table F-1.)

Certain AAWARE members with meters have submitted their metered groundwater production data to the GSA in confidence. The metered data provides local water duty information for mixed citrus and for lemon crops. The GSA is using similar maximum annual metered groundwater production data to calculate Baseline Production Allocations for municipal and recreational producers. Direct measurement of groundwater production with flow meters is highly accurate and the preferred method under SGMA. (Wat. Code, § 10725.8(a); DWR Water Budget BMP, p. 35.) Furthermore, the California Constitution (Article X, § 2), California legislative water policy (Wat. Code, § 100.5), and SGMA (Wat. Code, §§ 10720.1(b), 10720.5(a)) all require that local uses and production practices, among other factors, be taken into account in considering the water use by the AAWARE members and other water users.

Certain other AAWARE members without meters have separately submitted additional groundwater production information for their individual operations to the GSA in confidence. <u>A more accurate measure of maximum annual water production by AAWARE members can be obtained by using water meter readings for AAWARE members who have meters, and by using local crop irrigation information discussed in data provided to the GSA for AAWARE members who do not have meters.</u>

In some cases, the maximum irrigated agricultural acreage estimated by the GSA as part of the Baseline Production Allocation does not correspond with the actual irrigated crop acreage reported to the GSA by AAWARE members. The GSA's error may be the result of its use of aerial imagery only from the years 2010, 2012 and 2014, excluding two years of the GSA's five-year baseline pumping period of 2010-2015.

Also, the GSA's Baseline Production Allocation calculations do not account for beneficial uses of water by AAWARE members besides irrigation use, such as domestic use, frost protection or supplemental irrigation required due to low soil moisture retention.

Unless a particular Baseline Pumping Allocation is agreed to in writing, each AAWARE member reserves the right to contest its respective Baseline Pumping Allocation. AAWARE respectfully asks the GSA to convene technical meetings among the water producers who will be subject to the GSP and their respective technical consultants to finalize the calculation of the water producers' Baseline Pumping Allocations. This is an important first step toward cooperative basin management, particularly where the GSA's information and proposals differ so significantly from the 2015 USGS model report. (The GSP calls for a mandatory 74% reduction in groundwater pumping based on an incorrectly calculated sustainable yield of 5,700 AFY, while the 2015 USGS report concluded that sustainability can be achieved with a 60% reduction in then-current agricultural pumping (13,162 AFY), and 50% reduction in municipal (1,006 AFY) and recreational (4,113 AFY) pumping to achieve sustainability at total production of 7,824 AFY). (See, GSP p. 4-20, Section 4.4.1; 2015 USGS Report pp. 4 and 122, Table 20 (Scenario 6).) AAWARE also supports the proposal made

previously by T2 Borrego LLC, for facilitated efforts to mediate the Baseline Pumping Allocation question using a qualified facilitator.

AAWARE urges the GSA to reopen the comment period on the GSP as necessary to continue constructive dialog to resolve the concerns addressed in this letter and reach a workable solution to the GSP.

Sincerely,

Michele A. Staples

Michila Staples

MAS/BLH:dt

Enclosures (see attached Exhibit List)

cc: Jim Seley, AAWARE*

Geoff Poole, Borrego Water District*

Matthew Zimmerman, Department of Water Resources*

Boyd L. Hill, Esq., for AAWARE*

*via email only

EXHIBIT LIST

"Hard copies" of Exhibits delivered with original letter. Electronic copies of Exhibits posted at: https://sharefile.jacksontidus.law/wl/?id=H2lcpnHVFl2x6XJrcHnLpAySefoKnfDt

- 1. 11/02/18 Joint T2 Borrego/AAWARE Letter to Jim Bennett re Borrego Springs Groundwater Model and Proposal
- 2. Hydrogeology, Hydrologic Effects of Development, and Simulation of Groundwater Flow in the Borrego Valley, San Diego, California
- 3. 5/16/19 Wagner & Bonsignore Letter Report
- 4. Dudek GSP Scope of Work excerpts
- 5. 4/26/19 Transcript of Technical Meeting
- 6. 5/17/19 Thomas Harder & Co. Letter Report
- 7. 11/27/17 Advisory Committee Agenda Excerpts
- 8. GSA website screen shot
- 9. Advisory Committee Agenda Reports for GSP Rollout Oct 2018, Nov 2018 and Jan 2019
- 10. 3/29/19 Email providing some requested technical documents and withholding disclosure of others
- 11. August and October 2018 Advisory Committee Minutes re technical meeting process
- 12. 3/22/19 Email exchange to schedule technical meetings during GSP public comment period
- 13. 4/4/19 BWD Director Brecht Letter re GSP Costs
- 14. 9/24/15 Downey Brand Memorandum to Borrego Water District Board of Directors re Procedure for Imposition of Regulatory Fees Under SGMA
- 15. 4/26/19 Letter to Borrego Valley GSA
- 16. 5/16/19 Calibration Wells Correspondence and Documents
- 17. 9/12/18 ENSI Report
- 18. Excerpts re septic systems and District sewage ponds