other factors such as crop type, stage of growth, and climate conditions. Shifting the irrigation demand to when the water is available may not meet the objectives of optimal plant growth and productivity. Water storage could be from recycled water since there is a diurnal demand that could allow for some off-peak production of recycled water. Additional research should address if and when SRDF water can be stored. The storage should be limited in time to reduce any algae growth or water rights restrictions.

- Section 9.4.3.3, page 9-31 Supplemental wells are responsible for most pumping in the CSIP zone for the reason specified here. Private wells in the CSIP area are standby wells and can be pumped for specified circumstances.
- Section 9.4.3.4: MCWRA is a sister agency to M1W and the agencies work collaboratively on operating and maintaining the tertiary treatment facility (SVRP). Modifications to produce tertiary treated recycled water when demands are low is needed at the SVRP site. All wastewater is treated to the secondary level without any modifications necessary. Groundwater pumping is currently necessary for meeting demand as well as addressing pressure issues in the system. These modifications would need to be coupled with the hydraulic modeling and other system improvements described in the previous section to be most effective at reducing groundwater pumping. This project is not currently funded nor have the CSIP customers approved an increased charge. New funding estimates are \$7-10 million and additional funding resources should be identified to implement this project.
- Section 9.4.1.3, page 9-72 Statement; "The desalination alternative project is one of five alternative projects that may provide additional water to the Subbasin. The project will only be implemented after all five alternative projects have been refined. The most cost-effective project of the five will be selected to supply additional water to the Subbasin." There are only four Alternative Projects listed in 9.4.4.
- Section 9.4.3.5: Other possible approaches to CSIP expansion should be considered moving forward. A thorough analysis of distribution system upgrades and some reliance of existing wells must be considered. Storage of recycled water may not be able to meet peak demands and SRDF water is not available every year. Areas for expansion should consider more factors than seawater intrusion. Expansion may decrease the need for the SVRP modifications described previously.
- Section 9.4.3.6: Scheduling irrigation deliveries to reduce peak demands and re-operating the SVRP storage pond could help increase SRDF efficiency. Additional analysis to understand how the water would be used in the system is necessary. In years when SRDF diversions are not available, an alternate back up supply, such as groundwater, will be needed. As the system is currently configured, when SVRP usage increases SRDF reduces and vice versa as they are sharing facilities that limit the amount of water that can be delivered. Capital expenditures may be necessary to accomplish the increased use of SRDF water.
- Section 9.4.3.7: Preferred Project 6 (Seawater Intrusion Pumping Barrier) has the potential to conflict with the GSP submitted by the City of Marina for the Marina Area of the 180/400 Foot Aguifer.
- Section 9.4.3.7, page 9-50 GSP States that "Supplemental water to replace the extracted water would come from one of a number of other sources" but does not elaborate on what those other sources might be.

- Section 9.4.3.7, page 9-51 GSP includes assumptions about the pumping rates of wells in the 180- and 400-Foot Aquifer but does not explain the origin of these assumptions, subsequently making it difficult to evaluate the validity of the assumptions and the project as a whole.
- Section 9.4.3.9: Preferred Project 8 (11043 Diversion Facilities Phase II: Soledad) should include coordination with MCWRA and consultation on construction and operation of a diversion facility.
- Section 9.4.3.9.2, page 9-60 Consider including water quality as a relevant measurable objective for this project.
- Section 9.4.3.10: The SRDF is a point of re-diversion from Nacimiento and San Antonio Reservoir's two water right licenses and permit. Permit 21089 is a right to store and use water from the Nacimiento River. Changes to all three would be necessary to change the time of year water could be rediverted, along with the addition of an additional storage component. These changes are currently in conflict with the amount of water available to redivert at the SRDF from April 1st to October 31st, when demands are at their peak. The reservoirs have a limit on the amount of water that can be stored on an annual basis; and the water right licenses and permits have restrictions as to how much is withdrawn from storage annually. Additionally, treatment of river water should must comply with all state and federal regulations for injection into the groundwater aquifers.

Comments on Chapter 10 - Groundwater Sustainability Plan Implementation

- Section 10.3, page 10-8 Statement; "To develop better estimates of aquifer properties, the SVBGSA will identify up to three wells in the 180-Foot Aquifer and up to three wells in the 400-Foot aquifer for aquifer testing. Each well test will last a minimum of 8 hours, and will be followed by a 4-hour monitored recovery period. Wells for testing will be identified using the following criteria." It is the opinion of the MCWRA that three data points and the minimum test period in each aquifer will do little to refine the hydrogeologic properties of this subbasin. At a minimum, the MCWRA would recommend six to eight additional data points in the Deep Aquifers with an additional four to six data points in each of the 180-Foot and 400-Foot Aquifers. Pumping for the tests should last for a minimum of 12 hours, with a six to eight-hour recovery period in order to derive aquifer properties beyond the immediate vicinity of each well (data point).
- Section 10-4 Numbering errors in subsections
- Section 10-1-9 (see previous comment), page 10-8 Two Shallow wells adjacent to the Salinas
 River are inadequate to characterize level of interconnection.

MONTEREY COUNTY

WATER RESOURCES AGENCY

PO BOX 930 SALINAS, CA 93902 (P): 831-755-4860 (F): 831-424-7935

BRENT BUCHE GENERAL MANAGER



STREET ADDRESS 1441 SCHILLING PLACE, NORTH BUILDING SALINAS, CA 93901

November 25, 2019

Gary Petersen, General Manager Salinas Valley Basin Groundwater Sustainability Agency c/o Regional Government Services PO Box 1350 Carmel Valley, CA 93924

Re: Groundwater Sustainability Plan for the 180/400 Foot Aquifer Subbasin

Dear Mr. Petersen:

Monterey County Water Resources Agency (MCWRA) staff has reviewed the Groundwater Sustainability Plan for the 180/400 Foot Aquifer Subbasin released by the SVBGSA on October 10, 2019 and the update released on October 21, 2019.

MCWRA believes conflict exists between this Draft Groundwater Sustainability Plan (GSP) and the Draft Groundwater Sustainability Plan released for review by the City of Marina Groundwater Sustainability Agency. The development of Groundwater Sustainability Plans is addressed in California Code of Regulations; Title 23 (Waters); Division 2 (Department of Water Resources); Chapter 1.5 (Groundwater Management); Subchapter 2 (Groundwater Sustainability Plans); Article 1 (Introductory Provisions). Multiple sections within Article 1 address the consideration and/or impact of a GSP on adjacent basins. MCWRA believes that the apparent conflict between the two draft GSPs may indicate a deficiency in the SVBGSA's GSP for the 180/400-Foot Aquifer in terms of plan principles, evaluation criteria and interbasin coordination. MCWRA has provided specific comments on the Draft GSP in the enclosure.

MCWRA appreciates the opportunity to comment on the GSP for the 180/400 Foot Aquifer Subbasin. If you have any questions regarding the enclosed comments, please contact MCWRA at 831-755-4860.

Sincerely.

FOR:

Brent Buche General Manager

Salinas Valley Water Coalition

33 El Camino Real • Greenfield, CA 93927 (831) 674-3783 • FAX (831) 674-3835



TRANSMITTED VIA EMAIL

Salinas Valley Groundwater Sustainability Agency Atten: Mr. Gary Petersen, General Manager

November 25, 2019

Re: SVBGSA 180/400 Aquifer GSP

Dear Mr. Petersen

We again thank you for this opportunity to comment on the Salinas Valley Basin Groundwater Sustainability Agency's ("SVBGSA") Groundwater Sustainability Plan ("GSP") for the 180/400 Foot Aquifer Subbasin ("180/400 Subbasin"). Our comments previously submitted on September 10, 2019; the notes from your meeting held in Greenfield on July 18, 2019 and the various comments made by Nancy Isakson during the SVBGSA's committee and/or Board meetings, are incorporated herein by reference.

We also believe that many of the comments made by others, including those submitted by LandWatch and Mr. Thomas Virsik, should be carefully and thoughtfully addressed as to whether further changes should be made to the 180/400 GSP and/or whether there would be potential impact to the 180/400 GSP by not addressing the concerns expressed.

The SVWC's comments are summarized below along with comments to specific sections of the 180/400 GSP.

Global comments:

- Many of the references to the other Sub-Basins within the text of the 180/400 GSP should be
 deleted as they are confusing as to whether they apply other subbasins and/or how they would
 apply. This GSP is specific to the 180/400 Aquifer Subbasin and it should be clear to the reader
 that the various thresholds, standards, projects and/or management actions work to provide the
 needed and required sustainability to the 180/400 Aquifer Subbasin.
- Data gaps and lack of data: Section ES-5, Historical and Current Water Budgets states the historical and current water budgets are based on "best available data and tools", but goes on to state that "no groundwater model is available that produces an accurate historical and current water budget." That is, there are significant data gaps due to the unavailability of a groundwater model. We understand that it is anticipated that the water budgets will be updated to reflect the SVIHM output when it is released. The water budgets are key to this critically overdrafted subbasin. It is difficult to fully know what management actions and projects are needed to bring this subbasin into sustainability without having accurate historical and current water budgets.

This is an important element of the entire GSP. Because of the lack of accurate data and tools, it is important to look at what management actions and projects should be implemented in the near-term (immediately) and the short-term (within 6 months to one year) and the long-term in order to bring the 180/400 subbasin into sustainability as soon as possible while preparing to meet long-term sustainability.

This section also states that the "relatively high percentage error emphasizes the need to adopt the modeled historical groundwater budget when the historical SVIHM becomes available." It is because of this statement, in part, that it is difficult to understand the extent of the existing seawater intrusion problem in the 180/400 subbasin and the level of management actions and/or projects needed to meet sustainability, and whether the ones presented in the GSP will provide it.

Table 1 on page 10 demonstrates the level of uncertainty of using the 'best available data and tools', and only further confuses the matter and the reader.

ES-8 Projects and Management Actions:

Water Charges Framework: The water charges framework discussion should be geared only for the 180/400 GSP. While this type of framework may work for the other subbasins, this plan is ONLY for the 180/400 subbasin and what management actions and projects need to be implemented to meet the required sustainability for this critically overdrafted subbasin. Any contemplated water charges for implementing management actions and/or projects to address the seawater intrusion issue in this subbasin, should not be applied to the other subbasin unless

Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

and until it is shown how, and if, the other subbasins contribute to the seawater intrusion of the 180/400 subbasin and how they will benefit from the implementation of the management actions and/or projects.

- o Please know that the Salinas Valley Water Coalition supports all lands within the entire SVGBGSA paying fees to meet the overall administrative costs. However, they do not support blanket implementation of pumping charges to offset costs of implementing management actions and/or projects within the 180/400 subbasin; the costs for implementing these actions and projects should be paid for by those who would benefit from them – i.e. those within the 180/400 subbasin.
- Management Actions: This section identifies six management actions that "are most reliable, implementable, cost-effective, and acceptable to stakeholder." The GSP then goes on to state "the first three would benefit the entire Salinas Valley; the last three are specific to the 180/400 Aguifer Subbasin."
 - "Agricultural land and pumping allowance retirement". The SVWC does not believe that the Salinas Valley, other than the 180/400 Aquifer Subbasin will benefit from such pumping allowances and/or agricultural land retirement. Science and 'accurate' data has shown that areas outside of the 180/400 Aquifer do not contribute to seawater intrusion in the 180/400 and/or will the Salinas Valley, other than the 180/400, benefit from stopping seawater intrusion – except and to the extent of being a good neighbor and wanting to see this problem in the northern end of the Salinas Valley solved. Science and data have shown that this problem can only be solved by those within the 180/400 Aquifer Subbasin.
 - Reservoir reoperation. While SVWC believes reoperation of the reservoirs may benefit the entire Salinas Valley, we believe this is more than simply a 'management action'. There are potentially many benefits to reoperating the reservoirs, but there are also potentially many impacts – especially to existing projects, such as the Salinas Valley Water Project (SVWP).
 - Rather than including reoperation of the reservoirs, we suggest considering how the existing SVWP can be fully implemented to provide the benefits to the landowners as promised – including those within the 180/400 Aquifer.
 - Restrict pumping in CSIP area. This is a critical management action. It should be considered within regards to what level of restriction would be required in the near-term, the short-term and then the long-term IF other management actions and/or projects are not implemented.
- Direct recharge through recharge basins or wells: The SVWC has supported the consideration of, and the potential implementation of, the existing MCWRA Permit 11043. We would like to see additional information provided on this project, where it is in process with the State Water Resources Control Board and what actions need to occur to be able to implement it. We also believe that further project development utilizing Permit #11043 would be better suited during the development of the Eastside Subbasin GSP.
- Indirect recharge through decreased evapotranspiration or increased infiltration. would like the GSP to consider the inclusion of other species as well.

Process

Without offering a tracked changes version for each document, it is difficult for the public to sift through all text, figures and tables to determine what has been changed. Although the SVB GSA website is a repository for all documents, not all previous versions of Chapters are easily accessible to the public. On the GSP Valley Wide page, only Chapter 7 (released 5/16/19), Chapter 5 ((released 3/14/19) and Chapter 4 ((released 1/10/19) are available. The 180/400 page lists a simple one page "Update No. 1" description of a few high level changes. 2

Instead, one has to look through old meeting agendas and packets to find previous versions of documents. Unfortunately, many of these documents, although included as part of a dated agenda, do not have a date and the bottom of the document.

For example, to find changes made to Chapter 9, arguably one of the more important chapters, a reader would have to find drafts at the flowing locations:

- First Draft: Advisory Committee Meeting, July 18, 2019³
- Second Draft: Board of Directors Meeting, August 8, 2019⁴

production.s3.amazonaws.com/uploads/attachment/pdf/395302/Draft Ch 9 Projects and Management 7 12 2019 for Advi sory Committee 87642 .pdf

production.s3.amazonaws.com/uploads/attachment/pdf/405668/7e SVBGSA Draft 180 400 GSP Ch 9 20190802.pdf

¹ <u>https://svbgsa.org/groundwater-sustainability-plan/valley-wide-integrated-groundwater-sustainability-plan/</u>

² https://svbgsa.org/wp-content/uploads/2019/10/1-Update-No.-1-to-180-400-GSP.pdf

³ <u>https://legistarweb-</u>

https://legistarweb-

Third Draft: October 10, 2019 Release of 180/400 Draft⁵

Chapter 9 Implementation

9.2 Water Charges Framework: As mentioned above, the water charges framework should be considered for implementation **only** within the 180/400 Aquifer Subbasin. It should not be assumed to apply and be appropriate for the entire Salinas Valley. The GSP should also include other types of funding mechanisms to fund the implementation of management actions and projects for this GSP – but again, it should only consider such funding mechanisms as needed for the 180/400 Aquifer Subbasin, and not the entire Salinas Valley. Each subbasin should be allowed to consider other funding mechanisms as need to support implementation of their individual GSP.

The following are specific comments as to the text:

- as described, it is a "proposed" framework, still needs BOD approval
- Any votes related to cost of water shall require 3/4 agricultural members voting for it
- Pg 9-3 if the goal/benefit of the WCF is to incentivize reduction of groundwater pumping, won't the program eventually defund itself? This has happened in other utilities. "Tier 2 and Tier 3 funds are used to build projects and pay annual costs of purchasing and treating water that have a defined benefit to individuals or groups."
 - These statements should be further clarified so it is clear to the reader that the Tier 2 and Tier 3 charges will only be considered for implementation in other subbasins of the Salinas Valley once the GSP's for the other subbasins are completed and cost/benefit analysis of potential projects have been defined.
- What economic analysis will be required to price water at the three levels at the correct amounts
 with varying fluctuations of crop and land values, availability of new project water, etc.? This will
 take significant economic study, yet the budget in table 10-2 seems to have an imbalance, giving
 a facilitator a budget of \$450K over 3 years but allows for a technical budget of only \$120K over
 three years. It would seem that the technical analyses is critical to providing the needed
 information for the stakeholders/landowners to understand the benefits to be provided.
- If the Water Charges Framework is not adapted for all sub-basins, at some point, the budget item should be moved from Table 10-2 and distributed to the sub basins that are using it.
- **9.2.6 Administration, Accounting and Management:** This section states "the SVBGSA would use Water Charges revenues to fund project that develop new water supplies for the benefit of the 180/400-Foot Aquifer Subbasin." These water charges should only be applied to the 180/400 Aquifer Subbasin as they will be ones who benefit.
- * This section also states that agriculture pumping "will be metered", and that pumping will be reported directly to either the MCWRA or the SVBGSA.

Note: The SVWC has not taken a position as to whether to support or not support the requirement of agricultural meters, we do believe that whichever agency requires the meters should also collect the reports to maintain consistency.

9.2.7 Details to be Developed

- As we have stated above, this section should add: "Which financing method will fund GSA functions and projects for the 180/400 sub basin"
 - The option for multiple funding sources is clearly stated earlier, but at this point the document is making it sound as if WCF is already finalized and that it will be applied throughout all subbasins in the Salinas Valley—when it should only be applied within the 180/400 Aquifer Subbasin for this GSP and then may be considered within the other subbasins as their GSP's are developed and implemented.
 - Page 9-2: "Depending on the outcome of the negotiations, long-term GSP implementation may be funded by the water charges framework, other financing method as permitted by SGMA and other state law, or a combination thereof."
- The GSP states, "What is an equitable balance between the Tier 1 Sustainable Pumping Charge collected in the 180/400-Foot Aquifer Subbasin and the Tier 1 Sustainable Pumping Charge collected in other subbasins?"
 - However, this seems to conflict with what is stated on Page 9-2: "Therefore, <u>actual costs</u> seen by growers are proportional to individual needs project water."
 - This statement assumes that other subbasins will have Tiered WCF similar to the 180/400, as we have stated, this may not be the case. The 180/400 Aquifer Subbasin GSP should clearly state that the water charges framework will be applied to the 180/400

3

⁵ https://svbgsa.org/wp-content/uploads/2019/10/5-Updated-Volume-3.pdf

Aquifer Subbasin GSP and "may' be considered for implementation in other subbasins as their GSP's are developed.

9.3.2 Agricultural Land and Pumping Allowance Retirement

- We support the right of landowners to do as they please with their lands in terms of wanting to continue farming, temporarily fallowing or permanently retiring agricultural lands under SGMA. However, we find this section lacking in detail and therefore may not garner the attention from landowners that may be interested. The cost analysis is also incorrect and needs revision. In a basin that has seawater intrusion and facing a long list of expensive projects, we believe it warrants a more proactive and thoughtful approach than the proposed "let's see if anyone's interested."
- The assumption of Chapter 9 is that a combination of reduced pumping and projects are likely needed, however, doesn't state how we may be able to achieve our goal with reduced pumping alone. The 180/400 Aquifer Subbasin GSP should state what other action(s) would be needed if projects are not supported and approved this would be comparable to including a 'no project' alternative. The 180/400 GSP should inform landowners and growers of a more comprehensive cost/benefit analysis and should clearly state:
 - o How many acre feet do we need to reduce pumping in the 180/400 Aquifer Subbasin to come into balance and provide sustainability without any projects?
 - How many acres in the 180/400 Aquifer Subbasin would have to be fallowed to bring the subbasin in balance and be sustainable?
 - What percent of acres in the 180/400 Aquifer Subbasin of total current cropped acres is this?
 - To clarify it for the public, we suggest that you add here or in section 9.6: "Pumping reductions of XX,XXX AFY in the 180/400 Aquifer Subbasin would be required to mitigate all overdraft without any projects. This would be the equivalent of reducing XX% of total annual pumping from the basin or fallowing XX acres of land annually."
 - Although the total loss of farmland may be infeasible and undesirable for the 180/400 Aquifer Subbasin, this information would help land owners and farmers understand their options and it may especially be a useful strategy when a cost/benefit analysis is presented for other basins that are closer to sustainability (e.g. it may be better to fallow a small amount of acreage vs. invest in new projects).
- SGMA requires projects and management actions to have quantified benefits. Management Action #1 is the only Management Action that has potential water savings, therefore it should either state those savings or be moved to the Projects section in the Final Draft. It should consider, and be limited to, opportunities for such savings within the 180/400 Aquifer. The "Project" would be for SVB GSA staff or consultants to conduct a geospatial analysis to assess the best areas to potentially purchase lands for retirement, study the economic value of the land and water, and proactively contact the specific landowners to see if there is interest. For example priority areas could include:
 - Specific areas within the 180/400 Aquifer where reductions in pumping would significantly reduce seawater intrusion.
 - Farmed areas within the 180/400 Aquifer that are distant from CSIP services (cost/AF delivered vs. retirement cost-benefit analysis).
 - Areas within the 180/400 Aquifer where SVBGSA wants to co-locate other SVBGSA projects (recharge basins, injection wells)
 - Areas within the 180/400 Aquifer where other public funding could be sourced to drive down cost of agreement
 - Wetlands/riparian or other areas for habitat restoration
 - Steeply sloped areas that pose erosion, sedimentation and water quality problems
- In order provide a full understanding as to what it would be mean to the 180/400 Aquifer if NO projects were approved and implemented, at the minimum, the Permanent Retirement estimated cost calculations (9.3.2.8) needs to be refined:
 - Cost estimate is simply calculated land cost divided by <u>one year of</u> water savings. <u>These numbers (\$8,700, \$23,300)</u> are essentially meaningless and should be deleted from the <u>document as "retirement" is permanent</u>. As written:
 - \$26,000/acre / 3 AF saved = \$8,700/AF low estimate
 - \$70,000/acre / 3 AF saved = \$23,300/AF high estimate
 - Water savings is permanent: While comparing 25 years to 25 years for structural projects is somewhat useful, it isn't useful to neglect that water savings continues (without cost) beyond year 25. Assuming the land is permanently retired, the simple cost per acre foot water for 100 years (saving 3AF/year *100 years) is as follows:
 - \$26,000/acre / 300 AF saved = \$86/AF low estimate
 - \$70,000/acre / 300 AF saved = \$233/AF high estimate

- o Cost is one-time event:
 - Years 2-25: No ongoing staffing, facilities or O&M costs beyond year 1.
 - Years 25+: No significant future costs replacing machinery, structures etc.
- There is no mention that funding could be sourced from other grant programs such as water quality, habitat, conservation easements etc., further driving down the cost of the Management Actions.
- Future development of the GSP should address some challenging questions:
 - o How do you weigh retirement of acres with new acreage being planted?
 - o Is the range of land costs accurate, and include both the cost of agricultural land retirement *and* water savings for the sub-basin?
- Education for land owners: This could be tied to Management Action #2, SVB GSA should provide landowner education on potential funding sources for land sales, tax benefits of conservation easements etc.

Relevant Measurable Objectives - Why isn't Water Quality Objective mentioned in any of these sections?

• The GSP should state that it is the intent to collaborate with other agencies, entities, including the Regional Water Quality Control Board to promote water quality objectives.

Preferred Project #3 – M1Water 9.4.3.4.6 Estimated Cost

"The project cost will be covered through delivery charges to existing CSIP customers. Because a funding mechanism for this project has already been identified, these costs will not be incorporated into the Water Charges Framework."

- Seems that this would apply to PP2 and PP5 as well. Shouldn't optimizing CSIP be paid by those who would benefit, and expanding CSIP be paid by those who benefit? Would all growers in the 180/400 pay into PP2 and PP5 or just those that receive water from CSIP?
- Page 9-2: "Therefore, <u>actual costs seen by growers are proportional to individual needs</u> <u>project water."</u>

9.4.3.6 Preferred Project 5: Maximize Existing SRDF Diversion

9.4.3.6.6 Estimated Cost - SRDF

"The estimated projected yield for the project is 11,600 AF/year. "The yield for this project is the same yield that is identified in Priority Project #2 and a portion of the yield identified in Priority Project #3."

- What does this statement mean, does it mean it is the same water saved (it cannot be double-counted)?
- If this is the case, why is the project yield AF related to CSIP projects listed separately in Table 9-5 if the water saved is the same?
- The 3 CSIP-related projects need to be clarified for the public, growers and land owners to understand
 - o How are they interrelated?
 - o How many acre-feet exactly result from the separate projects of 2,3 and 5?
 - What is the intention of separating projects vs. combining all into one if they have overlapping water savings?
 - o Could these projects be listed as one project to be implemented in phases?

9.4.3.7 Preferred Project 6: Seawater Intrusion Pumping Barrier

Does the cost estimate include environmental review under CEQA? PG&E costs? Where will brackish water go? There are many unanswered questions that require significant analysis before a decision can be made as to whether this project can work. It might be helpful to also compare this project to a desal plant.

"Project yield is 30,000 AFY"

Does the cost estimate include desalination so it can be used? If not, it is not a "yield" of water for the basin to use. Although the seawater intrusion wells may pump this amount per year, none of this water will be useful for irrigation or domestic purposes. Therefore a reader cannot easily make an "apples to apples" comparison from this to other Preferred Projects, such as PP2,3,4,5. Even PP1, Invasive Species removal, which is of a different category, still has the supposed end result that less water is taken up by evapotranspiration and therefore more water will be left in the river or groundwater basin that could be available to recharge. To the contrary, PP6 takes brackish water out of the basin and discharges it into the ocean, so where is the water savings?

- Whether environmentally and politically possible, the cost-benefit analysis of this proposed project does not seem to be correct. Specifically:
 - o If the project yield is 30,000 AFY, why is it stated that it extracts 22,000 AFY in the notes below Table 9-5?
 - If project yield and costs calculation use the denominator 30,000 AFY, why is it listed as a value of only -11,000 AFY in table 9-5? If this is the actual value to the basin, shouldn't the cost be divided by 11,000 AF?
 - o If the value is negative 11,000 AFY (and other projects are positive) how exactly does this add up to helping mitigate overdraft? Again, it is hard to compare apples to oranges.
- Why is PP6 the same cost as PP9, when capital costs are \$50 million higher and annual O&M is \$6Million higher/year? (Again, the 30,000 AF "yield" of PP6 does not increase water in the aquifer

 — it takes it out, therefore you cannot divide by yield in PP6 similarly to PP9).
 - PP6 Seawater Intrusion Pumping Barrier: "Capital cost for the Seawater Intrusion Pumping Barrier project is estimated at \$102,389,000. This includes 44,000 LF of 8-inch to 36-inch pipe and rehabilitation of the existing M1W outfall. Annual O&M costs are anticipated to be approximately \$9,800,000. The total projected yield for the Seawater Intrusion Pumping Barrier is 30,000 AF/yr. The cost of water for this project is estimated at \$590/AF."
 - PP9 SRDF Winter Flow Injection: "The majority of the costs are for the construction of the injection wells. Capital costs are assumed to be \$51,191,000 for construction of an injection well field consisting of 16 wells as well as construction of a 4-mile conveyance pipeline between the SRDF site and the injection well system. Annual O&M costs are estimated at \$3,624,000 for the operation of the injection well field. Total annualized cost is \$7,629,000. Based on a project yield of 12,900 AF/yr., the unit cost of water is \$590/AF/yr."

9.4.3.10 Preferred Project 9: SRDF Winter Flow Injection

- This project proposes injection wells, have groundwater recharge basins been considered? This would include a water savings from taking ground out of production (3 af/acre) and no major ongoing O&M/capital costs.
- Why is there 4 miles of pipeline? Could you contact landowners closer to facilities, purchase land, permanently fallow ground closer to region to be served and reduce fee. Compare the cost/mile pipe vs. land costs.

9.6 Mitigation of Overdraft - There is a lack of transparency for reader to understand overall goal.

- The GSP should clearly restate the total acre-feet needed to bring the 180/400 Aquifer Subbasin in balance upfront. Ideally, should be stated at the beginning of the projects section to frame the menu of options to chose from.
 - What is the current demand in the 180/400 Aquifer Subbasin? What is the sustainable yield for Subbasin? What is the overdraft of the Subbasin?
 - According to 5.3.4 Total Change in Groundwater Storage, the basin is over drafted by 11,700 AFY.
 - According to 9.6 Mitigation of Overdraft, the historical subbasin overdraft estimated in Chapter 6 is 12,600 AF/yr.
 - If we have to add on to the overdraft as a "buffer" to stop seawater intrusion, what is the target goal? 20,000 AFY?
- What is the cumulative impact of multiple projects? If all projects were put in place, or a certain combination of projects in place, would there be enough water for it?
- Suggestion: combine AF/year in Table 9-5 with Table 9-1.
- Table 9-5 total in table is -58,201, but this appears to be incorrect, if added the total is 40,800
 - o The negative value is somewhat confusing given all of the projects except for seawater intrusion barrier are listed as +.
 - The three CSIP related projects (in red) seem to have overlapping water savings yet they are listed as separate line items. Needs clarification and potential revision.

I	able	9-5,	Potential	Yield	AFY
•		,			

Invasive Species Eradication	6,000
Optimize CSIP	5,500
Modify M1W	1,100
Expand CSIP	9,900
Maximize SRDF	11,600
Seawater Intrusion Barrier	-11,000
SRDF Winter Flow Injection	17,700
SUM	<mark>40,800</mark>

Chapter 10, Budget concerns - Cost of Management Actions

Our members are sensitive to total costs to implement SGMA, especially for Management Actions that may be lumped into the shared Valley Wide budget. Between the First and Second drafts of Chapter 9 (between July 18 and August 8, 2019, as described in Process section above), the two Management Actions (MAs) have been added and the cost for existing MAs have increased in both years, cost per year and total cost. In total we have calculated that annual costs for these MAs have gone up +\$255,000 and assuming MA #2 education lasts 5 years, total costs increase by \$1,000,000. On the "Public Comment" document, there is no apparent public comment on these MA changes, most of the comments were around the Water Charges Framework and Projects.⁶ Since the release of the August draft and the October draft, there doesn't seem to be substantial changes despite the extensive comments received. See table below.

9.3.2 MA1: Agricultural Land and Pumping Allowance Retirement		Ou Educ Agr	.3 MA2: utreach and cation for icultural MPs*	9.3.4 Rese Reope	ervoir	Res Pump	MA4: strict ping in Area	Restrice Addition in the	6 MA5: etions on nal Wells e Deep uifers	Se In W	.7 MA6: eawater trusion orking Group	
	D1	D2/3	D1	D2/3	D1	D2/3	D1	D2/3	D1	D2/3	D 1	D2/3
# years			N/A	??	2	3	1	2	1	4	N/ A	2
\$/ year			\$0	\$100,000	\$50,000	\$50,000	\$20,000	\$50,000	\$40,000	\$40,000	\$0	\$125,000
Total Cost			\$0	\$500,000	\$100,000	\$150,000	\$20,000	\$100,000	\$40,000	\$160,000	\$0	\$250,000
\$/AF low	\$500	\$680										
\$/AF high	\$1,350	\$1,820										
Total Cost increas e	4% interest rate, 30 years	6% interes t rate, 25 years		\$500,000		\$50,000		\$80,000		\$120,000		\$250,000

Assuming MA#2 education may last 5 years, the total cost of increased budget is \$1,000,000.

D1: Draft 1: July 18, 2019 draft.

D 2/3: Draft 2 and 3: August 8, 2019 and Oct 5, 2019.

Total Cost	D1	D2/3	Change
\$/year	\$110,000	\$365,000	\$255,000
Total			
Cost	\$160,000	\$1,160,000	\$1,000,000

Questions on the changes in Management Actions:

- Why did MA 1 change from a 4% 30 year mortgage to a 6% 25-year mortgage?
- How many years is MA #2 expected to take?
- Why has the number of years gone up for MA #3, 4, 5?
- Why has the cost per year gone up for MA #4?
- MA6 creating a Seawater Intrusion Working Group (SIWG) was recently added, and while this may
 be a good idea, it is the most expensive Management Action. It also isn't clear as to the level of
 inclusion of stakeholders they need to be included in any working group.
 - Why is there \$250,000 on Tale 10-1 for "Seawater Intrusion Working Group" and an additional \$200,000 on Table 10-2 for "Coordinate SIWG? If total budget is \$250,000+\$200,000, why aren't these costs stated in Chapter 9?
 - Table 10-2: We have \$1.2 million for Operational Costs, why is SWIG listed as a separate line item whereas other Management Actions are assumed to be included under Operational Costs?
- It states that the SVB GSA is only providing "oversight" for many of the Management Actions and even some Projects. Will these be overseen by other agencies? If so, would SVBGSA have any authority over these actions and projects?
 - o If it is just to primarily stay informed and attend meetings, why is the cost to GSA so high (especially MA 3,4,5)?
 - Has SVB-GSA Board of Directors approved expansion to its staffing?
 - o If not, will salaries of two existing staff be significantly increasing?

⁶ https://svbgsa.org/wp-content/uploads/2019/10/Website-Update-Appendix-11E-Public-Review-Comments.pdf

Table 10-1 and 10-2 - Budgets: Other cost questions

- Are all Management Actions assumed to be included under Table 10-2 Operational Costs (\$1.2M)?
 - We have \$1.2 million for Operational Costs, why is SWIG listed as a separate line item if other Management Actions are assumed to be included under Operational Costs?
- All 180/400 planning, operational costs and specific actions should be put under table 10-1, not 10-2. This is important because the basin is different both scientifically and in the eyes of the State Water Board. It is considered a high priority basin and therefore has different regulatory time schedule for the implementation of 180/400 projects. Because saltwater intrusion issue it faces is more challenging than other sub-basins, the potential need for complex and multiple projects will also drive up the costs for compliance for this sub-basin. For example,
 - Why is SIWG (\$200,000) listed on "Valley-wide" planning cost Table 10-2 when seawater intrusion isn't a valley-wide issue?
 - Why is Refine Projects and Actions (\$460,000) on table 10-2 if other basins may have no need for projects, or the projects they may partake in (such as PP#1 Invasive Species Removal) already exist?
 - While the cost/benefit analysis of projects for the 180/400 may have some interaction with other basins such as the Forebay, to put a generic placeholders on table 10-2 and claim that they are "Whole Valley" line items is erroneous.
- There appears to be an addition error in Table 10-2 as the 'Total' of \$9,422,600.00 is not correct but rather it should be \$2,921,800.00 according to our addition. This is a significant error as it distorts the overall total costs of the projects, and then distorts the average annual cost and hence, the potential costs to be paid by landowners. Table 10-1 also appears to be added incorrectly, calling into question the integrity of the document.

We again thank you for the opportunity to submit comments. We ask that your Board consider these comments for incorporation and revision to 180/400 Aquifer Subbasin GSP.

Thank you for your consideration,

Nancy Isakson, President



CALIFORNIA WATER | GROUNDWATER

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nature.org GroundwaterResourceHub.org

November 25, 2019

Gary Petersen, General Manager Salinas Valley Basin Groundwater Sustainability Agency 1441 Schilling Place Salinas, CA 93901

Submitted via email to: peterseng@svbgsa.org

Re: 180/400-Foot Aquifer Subbasin Groundwater Sustainability Plan (GSP)

Dear Mr. Gary Petersen,

The Nature Conservancy (TNC) appreciates the opportunity to comment on the 180/400-Foot Aquifer Subbasin GSP, within the Salinas Valley Basin, that is being prepared under the Sustainable Groundwater Management Act (SGMA). It is understood that the Salinas Valley-Wide Integrated Groundwater Sustainability Plan (ISP) is intended to be an overarching document for the Salinas Valley Basin, which includes the 180/400-Foot Aquifer Subbasin. Please note that we have previously submitted comments to Chapter 4 of the GSP on February 7, 2019, comments to Chapter 5 of the GSP and Chapters 1 through 4 of the ISP on April 11, 2019, comments to Chapters 7 and 8 of the GSP on June 18, 2019, and comments to Chapter 11 of the GSP on October 11, 2019.

TNC as a Stakeholder Representative for the Environment

TNC is a global, nonprofit organization dedicated to conserving the lands and waters on which all life depends. We seek to achieve our mission through science-based planning and implementation of conservation strategies. For decades, we have dedicated resources to establishing diverse partnerships and developing foundational science products for achieving positive outcomes for people and nature in California. TNC was part of a stakeholder group formed by the Water Foundation in early 2014 to develop recommendations for groundwater reform and actively worked to shape and pass SGMA.

Our reason for engaging is simple: California's freshwater biodiversity is highly imperiled. We have lost more than 90 percent of our native wetland and river habitats, leading to precipitous declines in native plants and the populations of animals that call these places home. These natural resources are intricately connected to California's economy providing direct benefits through industries such as fisheries, timber and hunting, as well as indirect benefits such as clean water supplies. SGMA must be successful for us to achieve a sustainable future, in which people and nature can thrive within the Salinas Valley Groundwater Authority region and California.

We believe that the success of SGMA depends on bringing the best available science to the table, engaging all stakeholders in robust dialog, providing strong incentives for beneficial outcomes and rigorous enforcement by the State of California.

Given our mission, we are particularly concerned about the inclusion of nature, as required, in GSPs. The Nature Conservancy has developed a suite of tools based on best available science to help GSAs, consultants, and stakeholders efficiently incorporate nature into GSPs. These tools and resources are available online at GroundwaterResourceHub.org. The Nature Conservancy's tools and resources are intended to reduce costs, shorten timelines, and increase benefits for both people and nature.

Addressing Nature's Water Needs in GSPs

SGMA requires that all beneficial uses and users, including environmental users of groundwater, be considered in the development and implementation of GSPs (Water Code § 10723.2).

The GSP Regulations include specific requirements to identify and consider groundwater dependent ecosystems (23 CCR §354.16(g)) when determining whether groundwater conditions are having potential effects on beneficial uses and users. GSAs must also assess whether sustainable management criteria may cause adverse impacts to beneficial uses, which include environmental uses, such as plants and animals. In addition, monitoring networks should be designed to detect potential adverse impacts to beneficial uses due to groundwater. Adaptive management is embedded within SGMA and provides a process to work toward sustainability over time by beginning with the best available information to make initial decisions, monitoring the results of those decision, and using data collected through monitoring to revise decisions in the future. Over time, GSPs should improve as data gaps are reduced and uncertainties addressed.

To help ensure that GSPs adequately address nature as required under SGMA, The Nature Conservancy has prepared a checklist (Attachment A) for GSAs and their consultants to use. The Nature Conservancy believes the following elements are foundational for 2020 GSP submittals. For detailed guidance on how to address the checklist items, please also see our publication, GDEs under SGMA: Guidance for Preparing GSPs¹.

1. Environmental Representation

SGMA requires that groundwater sustainability agencies (GSAs) consider the interests of all beneficial uses and users of groundwater. To meet this requirement, we recommend actively engaging environmental stakeholders by including environmental representation on the GSA board, technical advisory group, and/or working groups. This could include local staff from state and federal resource agencies, nonprofit organizations and other environmental interests. By engaging these stakeholders, GSAs will benefit from access to additional data and resources, as well as a more robust and inclusive GSP.

2. Basin GDE and ISW Maps

SGMA requires that groundwater dependent ecosystems (GDEs) and interconnected surface waters (ISWs) be identified in the GSP. We recommend using the Natural Communities Commonly Associated with Groundwater Dataset (NC Dataset) provided online² by the Department of Water Resources (DWR) as a starting point for the GDE map. The NC Dataset was developed through a collaboration between DWR, the Department of Fish and Wildlife and TNC.

¹GDEs under SGMA: Guidance for Preparing GSPs is available at: https://groundwaterresourcehub.org/public/uploads/pdfs/GWR_Hub_GDE_Guidance_Doc_2-1-18.pdf

² The Department of Water Resources' Natural Communities Commonly Associated with Groundwater dataset is available at: https://gis.water.ca.gov/app/NCDatasetViewer/

3. Potential Effects on Environmental Beneficial Users

SGMA requires that potential effects on GDEs and environmental surface water users be described when defining undesirable results. In addition to identifying GDEs in the basin, The Nature Conservancy recommends identifying beneficial users of surface water, which include environmental users. This is a critical step, as it is impossible to define "significant and unreasonable adverse impacts" without knowing what is being impacted. For your convenience, we've provided a list of freshwater species within the boundary of the 180/400-Foot Aquifer Subbasin in Attachment C. Our hope is that this information will help your GSA better evaluate the impacts of groundwater management on environmental beneficial users of surface water. We recommend that after identifying which freshwater species exist in your basin, especially federal and state listed species, that you contact staff at the Department of Fish and Wildlife (DFW), United States Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Services (NMFS) to obtain their input on the groundwater and surface water needs of the organisms on the GSA's freshwater species list. Because effects to plants and animals are difficult and sometimes impossible to reverse, we recommend erring on the side of caution to preserve sufficient groundwater conditions to sustain GDEs and ISWs.

4. Biological and Hydrological Monitoring

If sufficient hydrological and biological data in and around GDEs is not available in time for the 2020/2022 plan, data gaps should be identified along with actions to reconcile the gaps in the monitoring network.

TNC has reviewed the status of our previous comments as appearing in Appendix 11E: Public Review Comments, provided online. Where our comments have not been adequately addressed in the current draft of the GSP, they are repeated in this letter. Additionally, we have the following global statements on critical issues that we have found in the responses to our previous comments in Appendix 11E:

- Appendix 11E states (Responses to Comments 7-26, 8-124, 8-132): "The shallow aquifer is not considered a principal aquifer." The GSP states (p. 4-17) that some domestic wells draw water from the shallow aquifer, and that groundwater in these sediments is hydraulically connected to the Salinas River. TNC disagrees with the statement that the shallow aquifer is not a principal aquifer; it is indeed a principal aquifer that needs Sustainable Management Criteria established to prevent adverse impacts to GDEs and surface water beneficial users. Additionally, SGMA defines principal aquifers as "aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems" [23 CCR § 351 (aa)].
- Appendix 11E states (Responses to Comments 8-131, 8-133, 8-134): "The GSP does not protect species; it assesses whether the depletion of surface water due to pumping is significant or unreasonable." However, the Water Code § 10723.2 states: "The groundwater sustainability agency shall consider the interests of all (emphasis added) beneficial uses and users of groundwater, as well as those responsible for implementing groundwater sustainability plans. These interests include, but are not limited to [..] (e) Environmental users of groundwater; and (f) Surface water users, if there is a hydrologic connection between surface and groundwater bodies. Identifying beneficial users of surface water, which include environmental users, is a critical step in defining "significant and unreasonable adverse impacts". Without this it is impossible

to know what is being impacted. In the GSP, please propose Sustainable Management Criteria that assure protection of GDEs and instream environmental beneficial users.

TNC considers the 180/400-Foot Aquifer Subbasin Draft GSP to be inadequate under SGMA since key environmental beneficial uses and users are not adequately identified and considered. In particular, ISWs and GDEs are not adequately identified and evaluated for ecological importance or adequately considered in the basin's sustainable management criteria. Please present a thorough analysis of the identification and evaluation of ISWs and GDEs in subsequent drafts of the GSP. Once GDEs are identified, they must be considered when defining undesirable results and evaluated for further monitoring needs.

Our comments related to the 180/400-Foot Aquifer Subbasin GSP are provided in detail in Attachment B and are in reference to the numbered items in Attachment A. Attachment D describes six best practices that GSAs and their consultants can apply when using local groundwater data to confirm a connection to groundwater for DWR's Natural Communities Commonly Associated with Groundwater Dataset². Attachment E provides an overview of a new, free online tool that allows GSAs to assess changes in groundwater-dependent ecosystem (GDE) health using satellite, rainfall, and groundwater data.

Thank you for fully considering our comments as you develop your GSP.

Best Regards,

Sandi Matsumoto

Associate Director, California Water Program

The Nature Conservancy



Attachment A Considering Nature under SGMA: A Checklist

The Nature Conservancy is neither dispensing legal advice nor warranting any outcome that could result from the use of this checklist. Following this checklist does not guarantee approval of a GSP or compliance with SGMA, both of which will be determined by DWR and the State Water Resources Control Board.

GSP Plan Element*		GDE Inclusion in GSPs: Identification and Consideration Elements	Check Box
Admin Info	2.1.5 Notice & Communication 23 CCR §354.10	Description of the types of environmental beneficial uses of groundwater that exist within GDEs and a description of how environmental stakeholders were engaged throughout the development of the GSP.	1
ıg ork	2.1.2 to 2.1.4	Description of jurisdictional boundaries, existing land use designations, water use management and monitoring programs; general plans and other land use plans relevant to GDEs and their relationship to the GSP.	2
Planning Framework	Description of Plan Area 23 CCR §354.8	Description of instream flow requirements, threatened and endangered species habitat, critical habitat, and protected areas.	
Ę		Summary of process for permitting new or replacement wells for the basin, and how the process incorporates protection of GDEs	4
	2.2.1 Hydrogeologic Conceptual Model 23 CCR §354.14	Basin Bottom Boundary: Is the bottom of the basin defined as at least as deep as the deepest groundwater extractions?	
		Principal aquifers and aquitards: Are shallow aquifers adequately described, so that interconnections with surface water and vertical groundwater gradients with other aquifers can be characterized?	6
βι		Basin cross sections: Do cross-sections illustrate the relationships between GDEs, surface waters and principal aquifers?	7
Setting		Interconnected surface waters:	8
Basin S	2.2.2 Current & Historical	Interconnected surface water maps for the basin with gaining and losing reaches defined (included as a figure in GSP & submitted as a shapefile on SGMA portal).	
_	Groundwater Conditions	Estimates of current and historical surface water depletions for interconnected surface waters quantified and described by reach season, and water year type.	
	23 CCR §354.16	Basin GDE map included (as figure in text & submitted as a shapefile on SGMA Portal).	11
		If NC Dataset was used: Basin GDE map denotes which polygons were kept, removed, and added from NC Dataset (Worksheet 1, can be attached in GSP section 6.0).	12



	at	tribute table denoting: 1) which polygons were kept/removed/added, and 2) the change reason .g., why polygons were removed).	13		
		, , , ,	14		
			15		
	Description of GDEs included:				
	Historical and current groundwater	conditions and variability are described in each GDE unit.	17		
	Historical and current ecological condition and variability are described in each GDE unit and adequate to describe baseline as of 2015.				
	Each GDE unit has been characterized as having high, moderate, or low ecological value.				
	Inventory of species, habitats, and protected lands for each GDE unit with ecological importance (Worksheet 2, can be attached in GSP section 6.0).				
2.2.3 Water Budget 23 CCR §354.18	Groundwater inputs and outputs (e.g., evapotranspiration) of native vegetation and managed wetlands are included in the basin's historical and current water budget.				
	Potential impacts to groundwater conditions due to land use changes, climate change, and population growth to GDEs and aquatic ecosystems are considered in the projected water budget.				
3.1 Sustainability Goal 23 CCR §354.24	Environmental stakeholders/representatives were consulted.				
	Sustainability goal mentions GDEs or species and habitats that are of particular concern or interest.				
	Sustainability goal mentions whether the intention is to address pre-SGMA impacts, maintain or improve conditions within GDEs or species and habitats that are of particular concern or interest.				
3.2 Measurable Objectives 23 CCR §354.30	Description of how GDEs were considered and whether the measurable objectives and interim milestones will help achieve the sustainability goal as it pertains to the environment, beneficial uses and managed areas.				
3.3 Minimum Thresholds 23 CCR §354.28	Description of how GDEs and environmental uses of surface water were considered when setting minimum thresholds for relevant sustainability indicators:				
	Will adverse impacts to GDEs and/or aquatic ecosystems dependent on interconnected surface waters (beneficial user of surface				
	Are there any differences between the selected minimum threshold and state, federal, or local standards relevant to the species or habitats residing in GDEs or aquatic ecosystems dependent on interconnected surface waters?				
3.4 Undesirable	For GDEs, hydrological data are compiled and synthesized for each GDE unit:				
		Hydrological datasets are plotted and provided for each GDE unit (Worksheet 3, can be attached in GSP Section 6.0).	31		
Results 23 CCR §354.26	If hydrological data are availabl within/nearby the GDE	Baseline period in the hydrologic data is defined.	32		
		GDE unit is classified as having high, moderate, or low susceptibility to changes in groundwater.	33		
	Water Budget 23 CCR §354.18 3.1 Sustainability Goal 23 CCR §354.24 3.2 Measurable Objectives 23 CCR §354.30 3.3 Minimum Thresholds 23 CCR §354.28 3.4 Undesirable Results	If NC Dataset was not used: Description of GDEs included: Historical and current groundwater Historical and current ecological co 2015. Each GDE unit has been characteriz Inventory of species, habitats, and GSP section 6.0). Groundwater inputs and outputs (e historical and current water budget Potential impacts to groundwater or ecosystems are considered in the p Environmental stakeholders/rep Sustainability Goal 3.1 Sustainability goal mentions GDEs or species and habitats that are of par 3.2 Measurable Objectives 23 CCR §354.24 Description of how GDEs were achieve the sustainability indicate water) be avoided with the selected Are there any differences between thabitats residing in GDEs or aquatic For GDEs, hydrological data are	Description of GDEs included: Historical and current groundwater conditions and variability are described in each GDE unit. Historical and current ecological condition and variability are described in each GDE unit and adequate to describe baseline as of 2015. Each GDE unit has been characterized as having high, moderate, or low ecological value. Inventory of species, habitats, and protected lands for each GDE unit with ecological importance (Worksheet 2, can be attached in GSP section 6.0). Groundwater inputs and outputs (e.g., evapotranspiration) of native vegetation and managed wetlands are included in the basin's historical and current water budget. Potential impacts to groundwater conditions due to land use changes, climate change, and population growth to GDEs and aquatic ecosystems are considered in the projected water budget. Sustainability Goal 3.1 Sustainability goal mentions GDEs or species and habitats that are of particular concern or interest. Sustainability goal mentions whether the intention is to address pre-SGMA impacts, maintain or improve conditions within GDEs or species and habitats that are of particular concern or interest. 3.2 Measurable Objectives 23 CCR §354.30 Description of how GDEs were considered and whether the measurable objectives and interim milestones will help achieve the sustainability goal as it pertains to the environment, beneficial uses and managed areas. Minimum Thresholds 23 CCR §354.28 Will adverse impacts to GDEs and/or aquatic ecosystems dependent on interconnected surface waters (beneficial user of surface water) be avoided with the selected minimum thresholds? Are there any differences between the selected minimum threshold and state, federal, or local standards relevant to the species or habitats residing in GDEs or aqualic ecosystems dependent on interconnected surface waters? For GDEs, hydrological data are available within/nearby the GDE Hydrological datasets are plotted and provided for each GDE unit (Worksheet 3, can be attached in GSP Sec		



			Cause-and-effect relationships between groundwater changes and GDEs are explored.	34		
		within/nearby the GDF	Data gaps/insufficiencies are described.	35		
			Plans to reconcile data gaps in the monitoring network are stated.	36		
		For GDEs, biological data are compiled and synthesized for each GDE unit:				
		Biological datasets are plotted and provariability.	ovided for each GDE unit, and provide baseline conditions for assessment of trends and	38		
		Data gaps/insufficiencies are describe	ed.	39		
		Plans to reconcile data gaps in the monitoring network are stated.				
		Description of potential effects on GDEs, land uses and property interests:				
		Cause-and-effect relationships between GDE and groundwater conditions are described.				
		Impacts to GDEs that are considered to be "significant and unreasonable" are described.				
		Known hydrological thresholds or triggers (e.g., instream flow criteria, groundwater depths, water quality parameters) for significant impacts to relevant species or ecological communities are reported.				
		Land uses include and consider recreational uses (e.g., fishing/hunting, hiking, boating).				
		Property interests include and considerefuges, parks, and natural preserves	er privately and publicly protected conservation lands and opens spaces, including wildlife	46		
le nt	3.5 Monitoring Network 23 CCR §354.34	Description of whether hydrological dunit.	ata are spatially and temporally sufficient to monitor groundwater conditions for each GDE	47		
ainab geme teria		Description of how hydrological data	gaps and insufficiencies will be reconciled in the monitoring network.	48		
Sustainable Management Criteria			and environmental surface water users, as detected by biological responses, will be monitored will be used in conjunction with hydrologic data to evaluate cause-and-effect relationships with	49		
⊗ v	4.0. Projects & Mgmt Actions to Achieve Sustainability Goal 23 CCR §354.44	Description of how GDEs will benefit f	rom relevant project or management actions.	50		
Projects & Mgmt Actions		Description of how projects and man mitigated or prevented.	nagement actions will be evaluated to assess whether adverse impacts to the GDE will be	51		

^{*} In reference to DWR's GSP annotated outline guidance document, available at: https://water.ca.gov/LegacyFiles/groundwater/sgm/pdfs/GD_GSP_Outline_Final_2016-12-23.pdf

Attachment B

TNC Evaluation of the 180/400-Foot Aquifer Subbasin Draft GSP

A complete draft of the 180/400-Foot Aquifer Subbasin GSP has been provided for public review and comment. Please note that we have previously submitted comments to Chapter 4 of the GSP in a letter dated February 7, 2019, comments to Chapter 5 of the GSP and Chapters 1 through 4 of the ISP in a letter dated April 11, 2019, comments to Chapters 7 and 8 of the GSP in a letter dated June 18, 2019, and comments to Chapter 11 of the GSP in a letter dated October 11, 2019. Where our comments have not been adequately addressed in the current draft of the GSP, they are repeated in this letter with the comment number from Appendix 11E highlighted in blue. Comments are provided in the order of the checklist items included as Attachment A.

Checklist Item 1 - Notice & Communication (23 CCR §354.10)

[Chapter 11. Outreach and Communication]

- The Joint Exercise of Powers Agreement (Appendix 11D) lists the Board of Directors that includes a Director representing environmental users and interests. This is the only mention of environmental users in Chapter 11. No details are given as to the types and locations of environmental uses and habitats supported, or the designated beneficial environmental uses of surface waters that may be affected by groundwater extraction in the Subbasin. To identify environmental users, please refer to the following:
 - Natural Communities Commonly Associated with Groundwater dataset (NC Dataset) (https://gis.water.ca.gov/app/NCDatasetViewer/) which identifies the potential presence of groundwater dependent ecosystems in this basin.
 - o The list of freshwater species located in the 180/400-Foot Aquifer Subbasin in Attachment C of this letter. Please take particular note of the species with protected status.
 - Lands that are protected as open space preserves, habitat reserves, fisheries, wildlife refuges, conservation areas or other lands protected in perpetuity and supported by groundwater or ISWs should be identified and acknowledged.
- Please refer to the Critical Species Lookbook³ to review and discuss the potential groundwater reliance of critical species in the basin. Please include a discussion regarding the management of critical habitat for these aquatic species and its relationship to the GSP.

<u>Checklist Items 2 to 4 - Description of general plans and other land use plans relevant to GDEs and their relationship to the GSP (23 CCR §354.8)</u>

[Section 3.10 Land Use Plans (p. 3-39 to 3-50)]

³ Available online at: https://groundwaterresourcehub.org/sgma-tools/the-critical-species-lookbook/

- This section discusses the city (Salinas, Gonzales, and Marina) and county (Monterey) general plans covering areas within the Subbasin. Please include a discussion of how implementation of the GSP may affect and be coordinated with General Plan policies and procedures regarding the protection of wetlands, aquatic resources and other GDEs and ISWs.
- This section should identify Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) within the Subbasin and if they are associated with critical, GDE or ISW habitats. Please identify all relevant HCPs and NCCPs within the Subbasin and address how GSP implementation will coordinate with the goals of these HCPs or NCCPs.
- Please refer to the Critical Species Lookbook⁴ to review and discuss the potential groundwater reliance of critical species in the basin. Please include a discussion regarding the management of critical habitat for these aquatic species and its relationship to the GSP.

[Section 3.3 Jurisdictional Areas (p. 3-13 to 3-15)]

 The GSP describes several wildlife refuges, reserves, and conservation areas under Federal and State Jurisdiction, however there is no discussion of any in-stream flow requirements or other protections in place for species in these critical areas. Please include a discussion regarding the management of critical habitat for aquatic species and its relationship to the GSP, including discussion of any in-stream flow requirements.

[Section 3.10.5 Well Permitting (p. 3-47)]

- The GSP includes a brief discussion of well permitting policies governed by Monterey County. Please include a discussion of how future well permitting will be coordinated with the GSP to assure achievement of the Plan's sustainability goals.
- The State Third Appellate District recently found that counties have a responsibility
 to consider the potential impacts of groundwater withdrawals on public trust
 resources when permitting new wells near streams with public trust uses (ELF v.
 SWRCB and Siskiyou County, No. C083239). Compliance of well permitting
 programs with this requirement should be stated in the GSP.

Checklist Items 5, 6, and 7 - Hydrogeologic Conceptual Model (23 CCR §354.14)

[Section 4.3.2 Vertical Subbasin Boundaries (p. 4-10)]

• [Comment 4-14: GSP text changed but theme of original comment still holds; response does not adequately address the comment.] The SVBGSA has adopted the base of the aquifer defined by the USGS (Durbin et al., 1978). However, as noted on page 9 in DWR's Hydrogeologic Conceptual Model BMP⁵ "the definable bottom of the

⁴ Available online at: https://groundwaterresourcehub.org/sgma-tools/the-critical-species-lookbook/

⁵ Available at: https://water.ca.gov/LegacyFiles/groundwater/sgm/pdfs/BMP_HCM_Final_2016-12-23.pdf, accessed Feb 6, 2019.

basin should be at least as deep as the deepest groundwater extractions". Thus, groundwater extraction well depth data, as part of the best available data available to the GSA, should also be included in the determination of the basin bottom. This will prevent extractors with wells deeper than the basin boundary from claiming exemption of SGMA due to their well residing outside the vertical extent of the basin boundary.

[Section 4.4 Subbasin Hydrogeology (p. 4-13)]

Regional basin-wide geologic cross sections are provided in Figures 4-6 through 4-8 (p. 4-14 to 4-16). These cross-sections do not include a graphical representation of the manner in which the shallow aquifer may interact with ISWs or GDEs that would allow the reader to understand this topic. Please include example near-surface cross section details that depict the conceptual understanding of shallow groundwater and stream interactions at different locations.

[Section 4.4.1 Principal Aquifers and Aquitards (p. 4-17)]

• SGMA defines principal aquifers as "aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems" [23 CCR § 351 (aa)]. The GSP states (p. 4-17): "The shallowest water-bearing sediments are thin, laterally discontinuous, and do not constitute a significant source of water for the Subbasin. These shallow sediments are therefore not considered a principal aquifer." The text goes on to state that some domestic wells draw water from this zone, and that groundwater in these sediments is hydraulically connected to the Salinas River, both statements further support the claim that the shallow aquifer is a principal aquifer. TNC disagrees with the statement that the shallow aquifer is not a principal aquifer; it is indeed a principal aquifer that needs Sustainable Management Criteria established to prevent adverse impacts to GDEs and surface water beneficial users.

Checklist Items 8, 9, and 10 – Interconnected Surface Waters (ISW) (23 CCR §354.16)

[5.6.1 Data Sources for Interconnected Surface Water (5-54)]

• [Comment 5-36: Response does not adequately address the comment; no changes to GSP text were made.] While groundwater in the 180- and 400-foot Aquifers is generally not considered to be hydraulically connected to the Salinas River or its tributaries, the Shallow Aquifer (which resides above the Salinas Valley Aquitard) likely does. To address this, interconnections of surface water with groundwater in the Shallow Aquifer should be evaluated in this section of the GSP, since the Shallow Aquifer is within the 180/400-Foot Aquifer Subbasin. Where data gaps exist, cite them here or refer to a subsequent section of the GSP. Cite cross-sections that relay the conceptual understanding of the shallow aquifer interaction with surface water. Groundwater in the shallow aquifer is also likely to be supporting groundwater dependent ecosystems and interacting with the Salinas River in this part of the

basin. Basins with a stacked series of aquifers may have varying levels of pumping across aquifers in the basin, depending on the production capacity or water quality associated with each aquifer. If pumping is concentrated in deeper aquifers, SGMA still requires GSAs to sustainably manage groundwater resources in shallow aquifers, that can support springs, surface water, and groundwater dependent ecosystems. This is because the goal of SGMA is to sustainably manage groundwater resources for current and future social, economic, and environmental benefits, and while groundwater pumping may not be currently occurring in a shallow aquifer, it could be in the future.

[Section 5.6.2 Analysis of Surface Water and Groundwater Interconnection (p. 5-56)]

- [Comment 5-37: Response does not adequately address the comment; no changes to GSP text were made.] The 180-Foot Aquifer and the 400-Foot Aquifers are confined units, thus comparing groundwater levels of <20 feet below the ground surface with wells screened within a confined aquifer is an incorrect comparison. This is because the potentiometric surface of a confined aquifer cannot reflect the position of the true water table. Comparing groundwater levels from the shallow (unconfined) aquifer (that exists above the Salinas Valley Aquitard) with the ground surface is a more appropriate approach for identifying ISWs in the basin.
- [Comment 5-38 and Comment 5-39: Groundwater model noted in GSP text; data gaps not cited.] Mapping ISW locations would be best done using contours of depth to groundwater measured from multiple points in time (different seasons and water year types) rather than only from Fall 2013. Groundwater conditions evaluated across the range of seasonal and interannual time frames provides a more representative view of ISWs. Relying solely on any single point in time (in this case Fall 2013) to characterize groundwater conditions (e.g., depth to groundwater) is incomplete because data from one time point fails to capture the seasonal and interannual variability (i.e., wet, average, dry, and drought years) that is characteristic of California's climate. If data gaps exist in groundwater level contour data over time, these data gaps should be discussed in the ISP Section 5.5 (Salinas Valley Basin ISP) and GSP Section 5.6 (180/400-Foot Aquifer GSP Draft) and reconciled in the Monitoring Network section, so that ISW maps can be improved in future GSPs.
- [Comment 5-40: Response does not adequately address the comment and no changes to GSP text made.] The groundwater levels shown on Figure 5-35 are irrelevant to the discussion of ISWs since they do not map the shallow water table. The use of piezometric head from confined aquifers should be eliminated from these ISW mapping efforts, since they do not adequately reflect the position of the true water table (see last paragraph on p. 38 of Salinas Valley Basin ISP).
- [Comment 5-41: Response does not adequately address the comment and no changes to GSP text made.] It is unclear on Figure 5-35 whether missing groundwater levels along certain reaches of the Salinas River are due to groundwater levels >20 feet bgs or due to data gaps in groundwater levels. Mapping the position of wells used for the interpolation of groundwater elevation data used to map

- groundwater level contours near surface water would help provide further clarification.
- [Comment 5-42: Response does not adequately address the comment and no changes to GSP text made.] Please elaborate on how depth to groundwater contours were developed for Figure 5-19 of the Salinas Valley Basin ISP and on Figure 5-35 of the GSP. More accurate depth to groundwater maps around surface water features can be obtained by first interpolating groundwater elevations around surface water features and then subtracting groundwater elevations from land surface elevation data (obtained via digital elevation maps (DEM)⁶) for more accurate ISW mapping.
- [Comment 5-43: Response does not adequately address the comment and no changes to GSP text made.] We recommend mapping the gaining and losing reaches onto Figure 5-19 (Salinas Valley Basin ISP) using the data from Figure 5-23 (Salinas Valley Basin ISP). If this is not possible due to insufficient data, then as with the first bullet above, the data gaps would be best addressed by the Monitoring Network.

Checklist Items 11 to 15, Identifying and Mapping GDEs (23 CCR §354.16)

[4.4.4 Natural Discharge Areas (p. 4-23)] [Appendix 4A Methodology for Identifying Potential Groundwater Dependent Ecosystems]

- Please present or refer to a depth to groundwater map in this section. Refer to our comments on Section 5.6 Interconnected Surface Water above. Please ensure that only wells screened in the shallow unconfined aquifer are used to develop the depth to groundwater maps. Using "depth to groundwater" measurements from confined aquifers is mapping piezometric head of the confined aquifer and not detecting groundwater conditions in the unconfined aquifer that is supporting the ecosystem. The GSP refers to data gaps in water levels in the shallow unconfined aquifer. If there are insufficient groundwater level data in the shallow aquifer, then the GDE polygons in these areas should be included as GDEs in the GSP until data gaps are reconciled in the monitoring network.
- Please note the following best practices for depth to groundwater contour maps:
 - o Are the wells used for interpolating depth to groundwater sufficiently close (<5km) to NC Dataset polygons to reflect local conditions relevant to ecosystems?
 - o Are the wells used for interpolating depth to groundwater screened within the surficial unconfined aquifer and capable of measuring the true water table (see comment b above)?
 - Is depth to groundwater contoured using groundwater elevations at monitoring wells to get groundwater elevation contours across the landscape?
 This layer can then be subtracted from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the

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⁶ Available at: https://catalog.data.gov/dataset/usgs-national-elevation-dataset-ned-1-meter-downloadable-data-collection-from-the-national-map-

landscape. This will provide much more accurate contours of depth-to-groundwater along streams and other land surface depressions where GDEs are commonly found. Depth to groundwater contours developed from depth to groundwater measurements at wells assumes that the land surface is constant, which is a poor assumption to make. It is better to assume that water surface elevations are constant in between wells, and then calculate depth to groundwater using a DEM of the land surface to contour depth to groundwater.

- Please clarify how the light blue shaded area shown in Figure 4A-3 (depth to water < 30 ft south of Chualar) is used for the GDE analysis. The figure implies an incorrect interpretation of the GDE Guidance. Were GDEs in the Subbasin identified only in the overlap of areas south of Chualar and areas with depth to water < 30 ft? As the GSP states correctly (Appendix 4A p. 3), if any of the three criteria from the GDE Guidance Document are true, then you likely have a GDE. The figure implies that potential GDEs were only identified in the Quaternary Alluvium south of Chualar, disregarding potential GDEs in the rest of the Subbasin (in other words, the figure implies that GDEs were identified in areas where Criteria 1 AND 2 hold true, not where Criteria 1 OR 2 hold true). This is an incorrect interpretation of the GDE Guidance. As stated above, if any of the three criteria from the GDE Guidance Document are true, then you likely have a GDE.
- Please use care when considering rooting depths of vegetation. Please list the species in each GDE, and whether the GDE was eliminated or retained based on the 30-foot standard, and provide evidence for the decision. While Valley Oak (Quercus lobata) have been observed to have a max rooting depth of ~24 feet (https://groundwaterresourcehub.org/gde-tools/gde-rooting-depths-database-for-gdes/), rooting depths are likely to spatially vary based on the local hydrologic conditions available to the plant. Also, max rooting depths do not take capillary action into consideration, which will vary with soil type and is an important consideration since woody phreatophytes generally do not prefer to have their roots submerged in groundwater for extended periods of time, and hence can access groundwater at deeper depths.
- While depth to groundwater levels within 30 feet are generally accepted as being a proxy for confirming that polygons in the NC dataset are connected to groundwater, it is highly advised that seasonal and interannual groundwater fluctuations in the groundwater regime are taken into consideration. Utilizing groundwater data from one point in time (e.g., Fall 2013) can misrepresent groundwater levels required by GDEs, and inadvertently result in adverse impacts to the GDEs. Based on a study we recently submitted to Frontiers in Environmental Science Journal, we've observed riparian forests along the Cosumnes River to experience a range in groundwater levels between 1.5 and 75 feet over seasonal and interannual timescales. Seasonal fluctuations in the regional water table can support perched groundwater near an intermittent river that seasonally runs dry due to large seasonal fluctuations in the regional water table. While perched groundwater itself cannot directly be managed due to its position in the vadose zone, the water table position within the regional aquifer (via pumping rate restrictions, restricted pumping at certain depths, restricted pumping around GDEs, well density rules) and its interactions with surface

water (e.g., timing and duration) can be managed to prevent adverse impacts to ecosystems due to changes in groundwater quality and quantity under SGMA. We highly recommend using depth to groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) to determine the range of depth to groundwater around NC dataset polygons. Please refer to Attachment D of this letter for best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer. If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons in the GSP <u>until</u> data gaps are reconciled in the monitoring network.

 Decisions to remove, keep, or add polygons from the NC dataset into a basin GDE map should be based on best available science in a manner that promotes transparency and accountability with stakeholders. Any polygons that are removed, added, or kept should be inventoried in the submitted shapefile to DWR, and mapped in the plan. We recommend revising Figure 4-10 to reflect this change.

Checklist Items 16 to 20, Describing GDEs (23 CCR §354.16)

- [Comment 4-13: The response states that assessment of potential GDEs followed the approach developed by TNC; this is not the case.] Not all GDEs are created equal. Some GDEs may contain legally protected species or ecologically rich communities, whereas other GDEs may be highly degraded with little conservation value. Identifying an ecological value of each GDE can help prioritize limited resources when considering GDEs as well as prioritizing legally protected species or habitat that may need special consideration when setting sustainable management criteria. Please include a description of the types of species (protected status, native versus non-native), habitat, and environmental beneficial uses (see Worksheet 2, p.74 of GDE Guidance Document) and assign an ecological value to the GDEs.
- Are any of the wells from the MCWRA program (described in Section 5.1.1 of the Salinas Valley Basin ISP) close enough (<1 km) to GDEs and screened in the shallow portions of the aquifer to characterize historical and current groundwater conditions for each GDE? If data gaps exist, they should be discussed in Chapter 5.
- The <u>GDE Pulse</u> web application developed by The Nature Conservancy provides easy access to 35 years of satellite data to view trends of vegetation metrics, groundwater depth (where available), and precipitation data. This satellite imagery can be used to observe trends for NC dataset polygons within the 180-400 Foot Aquifer area (Figure 1). Over the past 10 years (2009-2018), NC dataset vegetation polygons have experienced adverse impacts to vegetation growth and moisture which are correlated to declines in groundwater levels (e.g., as indicated by wells GZWA21202, CHEA21208).

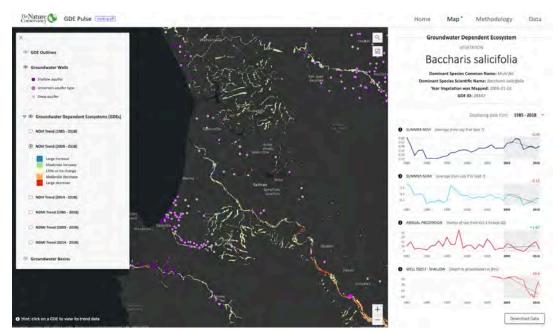


Figure 1. GDE Pulse web viewer screenshots of satellite-based trends of vegetation growth (NDVI), moisture (NDMI), shallow groundwater levels, and precipitation for selected vegetation from the NC dataset in the 180-400 Foot Aquifer area.

Checklist Items 23 to 25 – Sustainability Goal (23 CCR §354.24)

[Section 8.2 Sustainability Goal (p. 8-3)]

• [Comment 8-122: Response does not adequately address the comment and no changes to GSP text made.] In a future draft of the document, please provide more details on how the needs of environmental beneficial users (GDE and ISW ecosystems) will be balanced with other water users in the basin. The sustainability goal should describe how projects and actions will balance environmental water needs and avoid adverse impacts to GDEs and ISWs, how the basin will be operated to maintain or improve these aquatic ecosystems, and an explanation of how the sustainability goal will be achieved within 20 years of implementation of the GSP. For more case studies on how to incorporate environmental benefits into groundwater projects, please visit our website: https://groundwaterresourcehub.org/case-studies/recharge-case-studies/

[Section 8.3 General Process for Establishing Sustainable Management Criteria (p. 8-5)]

• [Comment 8-123: Response does not adequately address the comment and no changes to GSP text made.] This section broadly lists how the chapter was developed, but "publicly available information" and specific stakeholders are not clearly defined or cross referenced to other sections. Please provide or cross-reference this information, including reference to publicly available

information regarding GDEs that was researched and how environmental stakeholders were engaged.

<u>Checklist Item 26 – Measurable Objectives (23 CCR §354.30), and Checklist Items 27-29 – Minimum Thresholds (23 CCR §354.28)</u>

[Section 8.11 Depletion of Interconnected Surface Water SMC (p. 8-61)]

- This section states that ..."shallow sediments above the confined 180-Foot aquifer ... are connected to the surface water system. However, there almost no groundwater pumping in this area and it is not identified as a defined aquifer. The Salinas River tends to be a losing river where surface water infiltrates into the unconfined zone above the 180-Foot Aquifer. This occurs primarily in the dry season, and the Salinas River is largely dependent on the San Antonio and Nacimiento Reservoir releases for its continuous flow rate." Groundwater extraction from the 180-400 Foot Aquifer System has the potential to locally affect conditions in the overlying Shallow Aquifer and deplete interconnected surface water, potentially causing adverse impacts to the environmental beneficial users in the basin. Please integrate the following information into this section of the GSP to appropriately establish SMC for ISWs in a way that achieves the basin's sustainability goal to balance all beneficial users of the basin:
 - [Comment 8-124: Response does not adequately address the comment and no changes to GSP text made. See global comment on principal aquifer.] The shallow aquifer is indeed a principal aquifer that needs SMC established to prevent adverse impacts to surface water beneficial users. SGMA defines principal aquifers as "aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems" [23 CCR § 351 (aa)]. In addition, more nested/clustered wells are needed in the 180-400 Foot Aquifer area to determine vertical groundwater gradients and whether pumping in the deeper aquifers are causing groundwater levels to lower in the shallow aquifer and deplete surface water.
 - o [Comment 8-125: Response does not adequately address the comment and no changes to GSP text made.] As previously mentioned in our April 11 letter regarding Chapter 5 of the Draft GSP, the shallow aquifer in the 180/400 Foot Aquifer and Monterey Subbasins are likely to be supporting GDEs and interconnecting with the Salinas River. Thus, pumping in deeper aquifers can still cause adverse impacts to environmental beneficial users reliant on shallow groundwater. Even if pumping is not occurring in shallow groundwater aquifers, SGMA still requires GSAs to sustainably manage groundwater resources in shallow aquifers, especially those that support springs, surface water and GDEs for current and future uses.
 - o [Comment 8-126: Response does not adequately address the comment and no changes to GSP text made.] Several published references indicate that the 180-Foot aquifer is in direct hydraulic communication with the overlying Dune Sand Aquifer or Shallow Alluvial Aquifer where the Salinas Valley Aquitard is

thin or absent.⁷ These same references indicate aquitards within the 180/400 Foot aquifer system are known to be locally discontinuous. In addition, the fact that the Salinas is a losing stream and that 67,000 acre feet are recharged from the stream to the groundwater basin in an average year strongly suggests that the shallow aquifer is hydraulically connected to the underlying pumped aquifer systems.

[Section 8.10.2 Minimum Thresholds; Section 8.11.1 Locally Defined Significant and Unreasonable Conditions; and 8.11.2.1 Information and Methodology for Establishing Depletion of Interconnected Surface Minimum Thresholds (p. 8-56 to 8-64)]

[Comment 8-128: Response states that the list of freshwater species will be included. TNC comment retained for completeness.] These sections explain that the definition of Significant and Unreasonable Conditions, and establishment of Minimum Thresholds and Measurable Objectives is based on considerations related to flows in the Salinas River and specifically the maintenance of minimum flows for the protection of aquatic species and water rights. Steelhead are not the only environmental user that need consideration. A list of freshwater aquatic species identified in the 180-/400-Foot Aquifer Subbasin is included for your reference as Attachment C. It appears that GDEs have been omitted, as they are not mentioned or considered. We believe this to be a deficiency, as the Department of Water Resource's NC Dataset Viewer indicates a variety of potential GDE habitats are located in the subbasin along the Salinas River and its tributaries, and not just within the stream. Furthermore, TNC's GDE Pulse Tool (Attachment E) shows declining ecosystem conditions along the Salinas River between 2014 and 2018, including the period after the recent drought (and after the baseline period specified in SGMA). NDVI (which represents vegetation growth) and NDMI (which represents vegetation moisture) coincide with a decline in groundwater levels for NC dataset polygons along the Salinas River west of Salinas (Figure 1). Please include a discussion of how baseline conditions, current trends and potential adverse impacts to GDEs were considered in the definition of significant and unreasonable conditions and establishment of Minimum Thresholds and Measurable Objectives. A discussion of applicable state, federal and local standards, policies and guidelines applicable to the GDE species and habitats identified should also be provided. The section should explain how, in light of the nature and condition of the GDEs, these Sustainable Management Criteria will prevent undesirable results related to damage to GDE resources. Any data gaps and the means to address them should be identified.

[Section 8.11.2.4 Effects on Beneficial Uses and Users (p. 8-67)]

• [Comment 8-129: Response does not adequately address the comment and no changes to GSP text made.] The listing of beneficial uses of interconnected surface

⁷ See for example "Interpretation of Hydrostratigraphy and Water Quality from AEM Data Collected in the Northern Salinas Valley, CA," by Knight et al., dated 15 March 2018, and Recommendations to Address the Expansion of Seawater Intrusion in the Salinas Valley Groundwater Basin, Special Reports Series 17-01," by Monterey County Water Resources Agency, dated October 2017.

water is limited to instream resources of the Salinas River alone. Please expand the listing of beneficial uses and users to address GDEs and ecosystems that are located adjacent to the river and its tributaries. A list of fresh water aquatic species identified in the 180-/400-Foot Aquifer Subbasin is included for your reference as Attachment C. The relationships between GDEs and ecosystems adjacent to the river and its tributaries, and their dependence on interactions with ISW and groundwater, are key to understanding the appropriateness of the subbasin-wide Minimum Threshold for interconnected surface water depletion being proposed for all ISWs. GDEs adjacent to the river should also be considered when establishing the SMC for Chronic Lowering of Groundwater levels. Adjacent or nearby GDEs could be significantly affected by small depletions depending on the depletion rate, their location and the existing surface and groundwater hydraulic gradients. However, even if they are not, these GDEs could still be affected by relatively modest groundwater level declines and likely still need to be considered separately according to groundwater levels under the Chronic Lowering of Groundwater SMC. The discussion of ecological land uses and users should include GDEs and ecosystems adjacent to the river and its tributaries, and their dependence on interactions with ISW and groundwater.

[Section 8.11.2.5 Relation to State, Federal, or Local Standards (p. 8-68)]

• [Comment 8-130: No change to GSP text; response says no need to list flow requirements in this document. TNC comment retained for completeness.] We recommend the streamflow requirements set by the NMFS should be explicitly stated or referenced in the GSP. In addition, any other state, federal or local standards, requirements and guidelines pertaining to the GDE habitats and species identified in the NC dataset or the list of species included in Attachment C should also be discussed or referenced.

[Section 8.11.2.6 Method for Quantitative Measurement of Minimum Threshold (p. 8-68)]

[Comment 8-131: Response does not adequately address the comment and no significant changes to GSP text made. See global comment on GSP does not protect species.] Modeling/calculation of surface water depletion is the only proposed means to measure the minimum threshold for depletion of ISWs. Ecosystems sensitive to declines in groundwater levels and depletion of interconnected surface waters can experience significant declines in a short period of time depending on their hydraulic function, structure and the species involved. Use of a single calculated value in lieu of measured field data and linkages to other measured hydrogeologic data (such as groundwater levels) leaves a significant data gap that must be filled to assure protection of these resources. Model estimates should be monitored more closely than every five years in order to detect potentially significant effects in a time frame that allows for rapid response and alleviation of ecosystem decline. As discussed, the TNC's GDE Pulse Tool (Attachment E) already shows declining ecosystem conditions along the Salinas River between 2014 and 2018, including the period after the recent drought (and after the baseline period specified in the SGMA). Please discuss how the minimum threshold will be measured in a way that assures protection of GDEs and instream environmental beneficial users.

[Section 8.6.2.1 Information and Methodology Used to Establish Minimum Thresholds and Measurable Objectives (p. 8-8 to 8-16)]

• [Comment 8-132: Response does not adequately address the comment and no changes to GSP text made. See global comment on principal aquifer.] This section describes the methodology used to establish Minimum Thresholds and Measurable Objectives for Chronic Groundwater Level Decline. Subbasin-wide groundwater levels experienced in 2015 are defined as the Minimum Threshold, and the Measurable Objective was established the subbasin-wide groundwater levels experienced in 1992, which were approximately 1 foot higher. Table 8-2 (p. 8-15) lists "Representative Monitoring Sites" or wells where groundwater levels will be measured and compared to the Measurable Objectives to assess compliance with the plan. It is noteworthy that the table does not include a single well completed in the Shallow Alluvial or Dune Sand Aquifer. Please identify the lack of shallow aquifer monitoring wells as a data gap, and cross reference your plans discussed in Chapter 7 to install a sufficient number of shallow monitoring wells to assess potential undesirable results to GDEs.

[Sections 8.6.2.3 Relationship between Individual Minimum Thresholds (p. 8-16 to 8-18) and Section 8.7.2.2 Relationship to Other Sustainability Indicators and (p. 8-28 to 8-29)]

[Comment 8-133: Response does not adequately address the comment and no significant changes to GSP text made. See global comment on GSP does not protect species.] When groundwater levels are used as an objective, their relationship to other Sustainability Indicators must be discussed. These sections describe the relationship of chronic groundwater level declines and change in groundwater storage, which are measured using groundwater levels, to depletion of interconnected surface waters. The discussion is limited to the potential effect of groundwater levels on stream flows, and the potential effect of groundwater level declines on GDEs is not mentioned. The statement that "minimum thresholds for reduction in groundwater storage is a single value for the entire Basin. Therefore, the concept of potential conflict between minimum thresholds is not applicable" does not recognize the potential presence of ecosystems and GDEs that could be sensitive to relatively minor or localized declines in groundwater levels. The potential effect of groundwater level declines on GDEs depends on multiple conditions including the type of vegetation present and its ability to adapt to changing groundwater levels, the local interaction between surface and groundwater, and the nature of regional and local pumping stresses. Specification of a single groundwater level is likely insufficient to assure protection of GDEs in the absence of a monitoring program that encompasses both groundwater levels and related surface conditions (23 CCR §354.34 (a) and (b)), e.g., the health of the GDEs, for example, by using a tool similar to GDE Pulse. Please revise these sections to include a discussion regarding the effects of potential groundwater level declines on GDEs and

limitations of groundwater level monitoring alone to assess potential undesirable results to GDEs.

[Sections 8.6.2.5 Effects on Beneficial Users and Land Uses (p. 8-19 to 8-20) and 8.7.2.4 Effects on Beneficial Uses and Users (p. 8-30)]

• [Comment 8-134: Response does not adequately address the comment and no changes to GSP text made. See global comment on GSP does not protect species.]

The discussion on ecological land uses and users does not include a discussion on GDEs, ISWs, or other uses that benefit aquatic and terrestrial wildlife, ecosystem processes or recreation. A list of fresh water aquatic species identified in the 180-/400-Foot Aquifer Subbasin is included for your reference as Attachment C. These sections imply that ecological land uses <u>may</u> benefit secondarily from the potential curtailment of agricultural and domestic land uses, but does not clearly state how these specialized aquatic ecosystems and related beneficial groundwater users would benefit or be protected from further decline or future damage. Please include a discussion explaining how GDEs, ISWs and recreational uses may benefit or be protected by implementation of the proposed Minimum Thresholds and Measurable Objectives. A list of freshwater aquatic species identified in the 180-/400-Foot Aquifer Subbasin is included for your reference as Attachment C.

[Section 8.6.4.3 Effects on Beneficial Users and Land Uses (p. 8-26)]

• [Comment 8-135: Comment noted but no change in GSP text.] This section discusses the effects on beneficial users and land uses of criteria used to define undesirable results related to chronic groundwater level decline. Fifteen percent of exceedances is considered reasonable if the wells are widespread through the subbasin. The section acknowledges that significant unreasonable effects could occur in a smaller clustered area due to localized pumping, but does not describe specifically how the proposed regional compliance strategy will identify or address a more localized occurrence. TNC's GDE Pulse Tool (Attachment E) shows declining ecosystem conditions along the Salinas River west of Salinas between 2014 and 2018. This section should be revised to use these data as a basis for addressing how the proposed compliance strategy will address significant and undesirable decline of GDEs at the spatial scale already observed in the GDE Pulse data.

Checklist Item 47-49 – Monitoring Network (23 CCR §352.34)

[Table 7.2 Existing 180/400-Foot Aguifer CASGEM Well Network (p. 7-4)]

• [Comment 7-26: Response does not adequately address the comment. See global comment on principal aguifer.]

The wells listed in the table and proposed for monitoring do not include <u>any</u> wells completed in the Shallow Alluvial or Dune Sand Aquifers. As such, the proposed monitoring well network is inadequate to assess the potential effects of groundwater pumping and management on ISWs and GDEs. This fact should be

acknowledged with a cross reference to Section 7.2.4 which describes the proposed actions to remedy this situation.

[Section 7.7 Interconnected Surface Water Monitoring Network (p. 7-29)]

- [Comment 7-27: Response does not adequately address the comment.] This section states that "... there is little to no interconnection between the 180-Foot, 400-Foot or Deep Aquifer and surface water in the 180/400-Foot Aquifer Subbasin." However, the section further states that "the Salinas River is potentially in connection with groundwater in the shallow water bearing sediments" and Section 8.11.2 states that the average annual surface water depletion of the Salinas River is 67,000 acre feet. The GSP should explain how this amount of recharge can be redistributed through the aquifer system without any significant interconnection between the shallow and deeper aquifer systems. Furthermore, it is our understanding that the rate of surface water depletion from the Salinas River is in fact correlated historical groundwater level declines in the shallow and 180-Foot aquifer systems which have also resulted in seawater intrusion into the subbasin. The installation of two groundwater monitoring wells is insufficient to characterize surface-groundwater interactions across the entire subbasin. The BMP cited in section 7.2 instructs GSAs to "Monitor surface water and groundwater ... to characterize the spatial and temporal exchanges between surface water and groundwater, and to calibrate and apply the tools and methods necessary to calculate depletions of surface water caused by groundwater extractions." Per the BMP, 13 to 14 monitoring wells would be more adequate to achieve this objective. Please revise this section to (1) reflect what is known and published regarding potential surfacegroundwater interactions in the subbasin and related groundwater level and budget trends, (2) identify the existing data gaps, and (3) provide recommendations for an adequate number of monitoring wells to assess surface-groundwater interaction and shallow groundwater level trends.
- [Comment 7-28: Response does not adequately address the comment.] The GSP Regulations (23 CCR §354.34 (a) and (b)) require that monitoring must address trends in groundwater <u>and related surface conditions</u> (emphasis added). This includes "the tools and methods necessary to calculate depletions" and "[o]ther factors that may be necessary to identify adverse impacts on beneficial uses of the surface water," including impacts to GDEs. Please specify what other monitoring data and methods will be implemented to inform a determination whether significant and unreasonable impacts to GDEs are occurring, and explain how they will adequately meet the requirements of 23 CCR §354.34(c)(6) relative to GDEs and ISWs.

[Appendix 7B Monitoring Procedures]

• [Comment 7-29: Response states this will be added in a later version. TNC comment retained for completeness.] In Appendix 7B, please include monitoring protocols that meet the requirements of 23 CCR §354.34(c)(6) relative to GDEs and ISWs.

<u>Checklist Items 50 and 51 – Projects and Management Actions to Achieve Sustainability</u> Goal (23 CCR §354.44)

[Section 9.1 Introduction (p. 9-1)]

• The 180/400-Foot Aquifer Subbasin includes GDEs and ISWs that are beneficial uses and users of groundwater and may include potentially sensitive resources and protected lands. Environmental beneficial users and uses should be considered in establishing project priorities. In addition, consistent with existing grant and funding guidelines for SGMA-related work, consideration should be given to multi-benefit projects that can address water quantity as well as providing environmental benefits to disadvantaged communities. Please include environmental benefits and multiple benefits as criteria for assessing project priorities.

[Section 9.3 Management Actions (p. 9-9 to 9-21)]

• The 180/400-Foot Aquifer Subbasin GSP lists all Management Actions considered for the Subbasin in Appenidix 9A. Please consider adding Management Actions which include education and outreach for protection of GDEs and ISWs as well as specific management of these ecosystems and the species they provide for.

[Section 9.4 Projects (p. 9-21 to 9-84)]

- Section 9.4.1 lists "Direct Recharge through recharge basins or wells" as one of the four major types of projects that can be developed to supplement the 180/400-Foot Aquifer Subbasin's groundwater supplies or limit seawater intrusion. However, only one of this project type is presented, as an Alternative Project. The description of Measurable Objectives for Alternate Project 2 (Recharge Local Runoff from Eastside Range) only identifies benefits to groundwater elevation, groundwater storage, land subsidence, and groundwater quality. Because maintenance or recovery of groundwater levels or construction of recharge facilities may have potential environmental benefits, it would be advantageous to demonstrate multiple benefits from a funding and prioritization perspective. For Alternate Project 2, please consider stating how I SWs and GDEs will benefit or be protected, or what other environmental benefits will accrue.
- If ISWs and GDEs will not be adequately protected by the projects listed, please include and describe additional management actions and projects targeted for protecting ISWs and GDEs.
- Recharge basins, reservoirs and facilities for managed stormwater recharge projects can be designed as multi-benefit projects to include elements that act functionally as wetlands and provide a benefit for wildlife and aquatic species. In some cases, such multi-benefit projects and facilities have been incorporated into local Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans (NCCPs), more fully recognizing the value of the habitat that they provide and the species they support. For projects that construct recharge basins, please consider identifying if there is habitat value incorporated into the design and how the recharge basins will be managed to benefit environmental users. Grant and funding considerations for SGMA-related work may be given to multi-benefit

- projects that can address water quantity as well as provide environmental benefits. Therefore, please include environmental benefits and multiple benefits as criteria for assessing project priorities.
- For examples of case studies on how to incorporate environmental benefits into groundwater projects, please visit our website:

 https://groundwaterresourcehub.org/case-studies/recharge-case-studies/

Attachment C

Freshwater Species Located in the 180/400-Foot Aguifer Subbasin

To assist in identifying the beneficial users of surface water necessary to assess the undesirable result "depletion of interconnected surface waters", Attachment C provides a list of freshwater species located in the 180/400-Foot Aquifer Subbasin in the Salinas Valley. To produce the freshwater species list, we used ArcGIS to select features within the California Freshwater Species Database version 2.0.9 within the GSA's boundary. This database contains information on ~4,000 vertebrates, macroinvertebrates and vascular plants that depend on fresh water for at least one stage of their life cycle. The methods used to compile the California Freshwater Species Database can be found in Howard et al. 2015⁸. The spatial database contains locality observations and/or distribution information from ~400 data sources. The database is housed in the California Department of Fish and Wildlife's BIOS⁹ as well as on The Nature Conservancy's science website¹⁰.

Caiantifia Nama	Common Nome	Leg	al Protected S	Status
Scientific Name	Common Name	Federal	State	Other
	BIF	RDS		
Actitis macularius	Spotted Sandpiper			
Aechmophorus clarkii	Clark's Grebe			
Aechmophorus occidentalis	Western Grebe			
Agelaius tricolor	Tricolored Blackbird	Bird of Conservation Concern	Special Concern	BSSC - First priority
Aix sponsa	Wood Duck			
Anas acuta	Northern Pintail			
Anas americana	American Wigeon			
Anas clypeata	Northern Shoveler			
Anas crecca	Green-winged Teal			
Anas cyanoptera	Cinnamon Teal			
Anas discors	Blue-winged Teal			
Anas platyrhynchos	Mallard			
Anas strepera	Gadwall			
Anser albifrons	Greater White-fronted Goose			
Ardea alba	Great Egret			
Ardea herodias	Great Blue Heron			
Aythya affinis	Lesser Scaup			
Aythya americana	Redhead		Special Concern	BSSC - Third priority
Aythya collaris	Ring-necked Duck			
Aythya marila	Greater Scaup			
Aythya valisineria	Canvasback		Special	
Botaurus lentiginosus	American Bittern			

⁸ Howard, J.K. et al. 2015. Patterns of Freshwater Species Richness, Endemism, and Vulnerability in California. PLoSONE, 11(7). Available at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130710

⁹ California Department of Fish and Wildlife BIOS: https://www.wildlife.ca.gov/data/BIOS

¹⁰ Science for Conservation: https://www.scienceforconservation.org/products/california-freshwater-species-database

Bucephala albeola	Bufflehead			
Bucephala clangula	Common Goldeneye			
Butorides virescens	Green Heron			
Calidris alpina	Dunlin			
Calidris mauri	Western Sandpiper			
Calidris minutilla	Least Sandpiper			
Chen caerulescens	Snow Goose			
Chen rossii	Ross's Goose			
Chlidonias niger	Black Tern		Special Concern	BSSC - Second priority
Chroicocephalus philadelphia	Bonaparte's Gull			
Cistothorus palustris palustris	Marsh Wren			
Cygnus columbianus	Tundra Swan			
Egretta thula	Snowy Egret			
Empidonax traillii	Willow Flycatcher	Bird of Conservation Concern	Endangered	
Fulica americana	American Coot			
Gallinago delicata	Wilson's Snipe			
Geothlypis trichas trichas	Common Yellowthroat			
Grus canadensis	Sandhill Crane			
Haliaeetus leucocephalus	Bald Eagle	Bird of Conservation Concern	Endangered	
Himantopus mexicanus	Black-necked Stilt			
Histrionicus histrionicus	Harlequin Duck		Special Concern	BSSC - Second priority
Icteria virens	Yellow-breasted Chat		Special Concern	BSSC - Third priority
Limnodromus scolopaceus	Long-billed Dowitcher			
Lophodytes cucullatus	Hooded Merganser			
Megaceryle alcyon	Belted Kingfisher			
Mergus merganser	Common Merganser			
Mergus serrator	Red-breasted Merganser			
Numenius americanus	Long-billed Curlew			
Numenius phaeopus	Whimbrel			
Nycticorax nycticorax	Black-crowned Night- Heron			
Oxyura jamaicensis	Ruddy Duck			
Pelecanus erythrorhynchos	American White Pelican		Special Concern	BSSC - First priority

Phalacrocorax	Double-crested	1	1	
auritus	Cormorant			
Phalaropus tricolor	Wilson's Phalarope			
Plegadis chihi	White-faced Ibis		Watch list	
Pluvialis squatarola	Black-bellied Plover			
Podiceps nigricollis	Eared Grebe			
Podilymbus podiceps	Pied-billed Grebe			
Porzana carolina	Sora			
Rallus limicola	Virginia Rail			
Recurvirostra				
americana	American Avocet			
Riparia riparia	Bank Swallow		Threatened	
Rynchops niger	Black Skimmer			
Setophaga petechia	Yellow Warbler			BSSC - Second priority
Tachycineta bicolor	Tree Swallow			
Tringa melanoleuca	Greater Yellowlegs			
Tringa semipalmata	Willet			
Tringa solitaria	Solitary Sandpiper			
Xanthocephalus	Yellow-headed		Special	BSSC - Third
xanthocephalus	Blackbird		Concern	priority
·	CRUSTA	CEANS		
Americorophium spp.	Americorophium spp.			
Cambaridae fam.	Cambaridae fam.			
Cyprididae fam.	Cyprididae fam.			
Gammarus spp.	Gammarus spp.			
Gnorimosphaeroma	Gnorimosphaeroma			
spp.	spp.			
Hyalella spp.	Hyalella spp.			
Neomysis mercedis				Not on any status lists
	FIS	SH .		
Eucyclogobius newberryi	Tidewater goby	Endangered	Special Concern	Vulnerable - Moyle 2013
Oncorhynchus mykiss - SCCC	South Central California coast steelhead	Threatened	Special Concern	Vulnerable - Moyle 2013
Spirinchus thaleichthys	Longfin smelt	Candidate	Threatened	Vulnerable - Moyle 2013
Catostomus occidentalis mnioltiltus	Monterey sucker			Least Concern - Moyle 2013
Cottus aleuticus	Coastrange sculpin			Least Concern - Moyle 2013
Cottus asper ssp. 1	Prickly sculpin			Least Concern - Moyle 2013
Entosphenus tridentata ssp. 1	Pacific lamprey		Special	Near- Threatened - Moyle 2013

Eucyclogobius newberryi	Tidewater goby	Endangered	Special Concern	Vulnerable - Moyle 2013
Gasterosteus aculeatus	Coastal threespine stickleback			Least Concern - Moyle 2013
Gasterosteus aculeatus microcephalus	Inland threespine stickleback		Special	Least Concern - Moyle 2013
Lavinia exilicauda harengeus	Monterey hitch		Special	Vulnerable - Moyle 2013
Lavinia symmetricus subditus	Monterey roach		Special Concern	Near- Threatened - Moyle 2013
Oncorhynchus gorbuscha	Pink salmon		Special Concern	Endangered - Moyle 2013
Oncorhynchus mykiss - SCCC	South Central California coast steelhead	Threatened	Special Concern	Vulnerable - Moyle 2013
Oncorhynchus mykiss irideus	Coastal rainbow trout			Least Concern - Moyle 2013
Orthodon microlepidotus	Sacramento blackfish			Least Concern - Moyle 2013
Ptychocheilus grandis	Sacramento pikeminnow			Least Concern - Moyle 2013
Rhinichthys osculus ssp. 1	Sacramento speckled dace			Least Concern - Moyle 2013
	HER	PS		
Actinemys marmorata marmorata	Western Pond Turtle		Special Concern	ARSSC
Ambystoma californiense californiense	California Tiger Salamander	Threatened	Threatened	ARSSC
Ambystoma macrodactylum	Long-toed salamander			
Ambystoma macrodactylum croceum	Santa Cruz Long-toed Salamander	Endangered	Endangered	
Anaxyrus boreas boreas	Boreal Toad			
Anaxyrus boreas halophilus	California Toad			ARSSC
Pseudacris regilla	Northern Pacific Chorus Frog			
Pseudacris sierra	Sierran Treefrog			
Rana boylii	Foothill Yellow-legged Frog	Under Review in the Candidate or Petition Process	Special Concern	ARSSC

Rana draytonii	California Red-legged Frog	Threatened	Special Concern	ARSSC
Spea hammondii	Western Spadefoot	Under Review in the Candidate or Petition Process	Special Concern	ARSSC
Taricha torosa	Coast Range Newt		Special Concern	ARSSC
Thamnophis elegans elegans	Mountain Gartersnake			Not on any status lists
Thamnophis elegans terrestris	Coast Gartersnake			Not on any status lists
Thamnophis hammondii hammondii	Two-striped Gartersnake		Special Concern	ARSSC
Thamnophis sirtalis infernalis	California Red-sided Gartersnake			Not on any status lists
Thamnophis sirtalis sirtalis	Common Gartersnake			
	INSECTS AND OTHE	R INVERTEBRAT	ΓES	
Abedus spp.	Abedus spp.			
Ablabesmyia spp.	Ablabesmyia spp.			
Acentrella spp.	Acentrella spp.			
Aeshna interrupta interna				
Aeshna palmata	Paddle-tailed Darner			
Aeshnidae fam.	Aeshnidae fam.			
Agabus spp.	Agabus spp.			
Ameletus spp.	Ameletus spp.			
Argia spp.	Argia spp.			
Baetidae fam.	Baetidae fam.			
Baetis spp.	Baetis spp.			
Belostomatidae fam.	Belostomatidae fam.			
Berosus spp.	Berosus spp.			
Bisancora spp.	Bisancora spp.			
Brachycentrus spp.	Brachycentrus spp.			
Brillia spp.	Brillia spp.			
Calineuria californica	Western Stone			
Callibaetis spp.	Callibaetis spp.			
Centroptilum spp.	Centroptilum spp.			
Chaetocladius spp.	Chaetocladius spp.			
Cheumatopsyche spp.	Cheumatopsyche spp.			
Chironomidae fam.	Chironomidae fam.			
Chironomus spp.	Chironomus spp.			
Chloroperlidae fam.	Chloroperlidae fam.			
Choroterpes spp.	Choroterpes spp.			
Cladotanytarsus spp.	Cladotanytarsus spp.			
Coenagrionidae fam.	Coenagrionidae fam.			

Corisella decolor			Not on any status lists
Corisella spp.	Corisella spp.		
Corixidae fam.	Corixidae fam.		
Cricotopus spp.	Cricotopus spp.		
Cryptotendipes spp.	Cryptotendipes spp.		
Cymbiodyta spp.	Cymbiodyta spp.		
Dicrotendipes spp.	Dicrotendipes spp.		
Diphetor hageni	Hagen's Small Minnow Mayfly		
Drunella spp.	Drunella spp.		
Dytiscidae fam.	Dytiscidae fam.		
Enallagma carunculatum	Tule Bluet		
Enallagma spp.	Enallagma spp.		
Epeorus spp.	Epeorus spp.		
Ephydridae fam.	Ephydridae fam.		
Fallceon quilleri	A Mayfly		
Fallceon spp.	Fallceon spp.		
Gomphidae fam.	Gomphidae fam.		
Gumaga spp.	Gumaga spp.		
Gyrinus spp.	Gyrinus spp.		
Heptageniidae fam.	Heptageniidae fam.		
Hydrophilidae fam.	Hydrophilidae fam.		
Hydroporus spp.	Hydroporus spp.		
Hydropsyche spp.	Hydropsyche spp.		
Hydroptila spp.	Hydroptila spp.		
Hydroptilidae fam.	Hydroptilidae fam.		
Ischnura spp.	Ischnura spp.		
•	''	+	
Isoperla spp. Laccobius spp.	Isoperla spp. Laccobius spp.		
Laccophilus spp.	Laccophilus spp.		
Lepidostoma spp.	Lepidostoma spp.		
Leptoceridae fam.	Leptoceridae fam.	<u> </u>	
Leucrocuta spp.	Leucrocuta spp.		
Limnophyes spp.	Limnophyes spp.		N1-4
Liodessus obscurellus			Not on any status lists
Malenka spp.	Malenka spp.		รเสเนร แรเธ
•	•		
Micropsectra spp. Microtendipes spp.	Micropsectra spp.		
	Microtendipes spp.		
Mystacides spp.	Mystacides spp.		
Nanocladius spp.	Nanocladius spp.		
Nectopsyche spp.	Nectopsyche spp.		
Ochthebius spp.	Ochthebius spp.		
Onocosmoecus spp.	Onocosmoecus spp.		
Optioservus spp.	Optioservus spp.		
Oreodytes spp.	Oreodytes spp.		
Pantala hymenaea	Spot-winged Glider		

Paraeladanalma ann	Paracladopelma spp.	I	1	1
Paracladopelma spp.				
Paracymus spp.	Paracymus spp.			
Parakiefferiella spp.	Parakiefferiella spp.			
Paraleptophlebia spp.	Paraleptophlebia spp.			
Paratanytarsus spp.	Paratanytarsus spp.			
Paratendipes spp.	Paratendipes spp.			
Peltodytes spp.	Peltodytes spp.			
Phaenopsectra spp.	Phaenopsectra spp.			
Polypedilum spp.	Polypedilum spp.			
Procladius spp.	Procladius spp.			
Psephenus falli				Not on any status lists
Pseudosmittia spp.	Pseudosmittia spp.			
Psychodidae fam.	Psychodidae fam.			
Rhagovelia distincta				Not on any status lists
Rhagovelia spp.	Rhagovelia spp.			รเสเนร แรเร
Rheotanytarsus spp.	Rheotanytarsus spp.			
Rhionaeschna				
multicolor	Blue-eyed Darner			
Rhionaeshna spp.	Rhionaeshna spp.			
Rhithrogena spp.	Rhithrogena spp.			
Rhyacophila spp.	Rhyacophila spp.			
Serratella spp.	Serratella spp.			
Sigara spp.	Sigara spp.			
Simulium spp.	Simulium spp.			
Sperchon spp.	Sperchon spp.			
Sperchontidae fam.	Sperchontidae fam.			
Stylurus spp.	Stylurus spp.			
Sweltsa spp.	Sweltsa spp.			
Sympetrum	Variegated			
corruptum	Meadowhawk			
Tanytarsus spp.	Tanytarsus spp.			
Tipulidae fam.	Tipulidae fam.			N
Trichocorixa calva				Not on any status lists
Trichocorixa spp.	Trichocorixa spp.			
Tricorythodes spp.	Tricorythodes spp.			
Tropisternus spp.	Tropisternus spp.			
Uvarus subtilis				Not on any status lists
Zaitzevia spp.	Zaitzevia spp.			
• •	MAMI	MALS		
Lontra canadensis	North American River			Not on any
canadensis	Otter			status lists
MOLLUSKS				
Anodonta californiensis	California Floater		Special	
Ferrissia rivularis	Creeping Ancylid			CS
	· · · · · · · · · · · · · · · · · · ·	*	-	•

Ferrissia spp.	Ferrissia spp.	I		
Helisoma spp.	Helisoma spp.			
Hydrobiidae fam.	Hydrobiidae fam.			
Lymnaea spp.	Lymnaea spp.			
Menetus opercularis	Button Sprite			CS
Physa spp.	Physa spp.			00
• • • •	Pisidium spp.			
Pisidium spp. Planorbidae fam.				
	Planorbidae fam.			
Pomatiopsis spp.	Pomatiopsis spp.			
Sphaeriidae fam.	Sphaeriidae fam.			
	PLAI	NTS		
Arundo donax	NA			
Azolla filiculoides	NA			
Calochortus uniflorus	Shortstem Mariposa Lily		Special	CRPR - 4.2
Carex densa	Dense Sedge			
Carex harfordii	Harford's Sedge			
Carex obnupta	Slough Sedge			
Cotula coronopifolia	NA			
Eleocharis				
macrostachya	Creeping Spikerush			
Euthamia	Western Fragrant			
occidentalis	Goldenrod			
Helenium puberulum	Rosilla			
Hypericum	Tinker's-penny			
anagalloides	Tilikei s-peliliy			
Jaumea carnosa	Fleshy Jaumea			
Juncus effusus				
pacificus				
Juncus				
phaeocephalus	Brown-head Rush			
phaeocephalus	Inia Ia of Decade			
Juncus xiphioides	Iris-leaf Rush			
Lemna minor	Lesser Duckweed			
Lepidium oxycarpum	Sharp-pod Pepper-			
	grass			
Limonium californicum	California Sea-lavender			
camornicum	Common Lorgo			
Mimulus guttatus	Common Large Monkeyflower			
Navarretia intertexta	Needleleaf Navarretia			
Oenanthe				
sarmentosa	Water-parsley			
Perideridia gairdneri				
gairdneri	Gairdner's Yampah		Special	CRPR - 4.2
Phacelia distans	NA			
Phragmites australis				
australis	Common Reed			
Plantago elongata	Clandar Diantain			
elongata	Slender Plantain			
Populus trichocarpa	NA			Not on any
. sparae a fortecarpa				status lists

Potentilla anserina pacifica			Not on any status lists
Psilocarphus tenellus	NA		
Rorippa curvisiliqua curvisiliqua	Curve-pod Yellowcress		
Rumex conglomeratus	NA		
Rumex occidentalis			Not on any status lists
Rumex salicifolius salicifolius	Willow Dock		
Rumex stenophyllus	NA		
Salix babylonica	NA		
Salix exigua exigua	Narrowleaf Willow		
Salix laevigata	Polished Willow		
Salix lasiandra lasiandra			Not on any status lists
Salix lasiolepis lasiolepis	Arroyo Willow		
Sequoia sempervirens			
Sparganium eurycarpum eurycarpum			
Stachys ajugoides	Bugle Hedge-nettle		
Stachys chamissonis chamissonis	Coast Hedge-nettle		
Stellaria littoralis	Beach Starwort	Special	CRPR - 4.2
Triglochin maritima	Common Bog Arrow- grass		
Typha latifolia	Broadleaf Cattail		
Veronica anagallis- aquatica	NA		

Attachment D

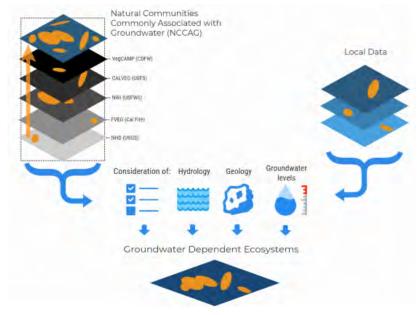


July 2019



I DENTIFYING GDES UNDER SGMA Best Practices for using the NC Dataset

The Sustainable Groundwater Management Act (SGMA) requires that groundwater dependent ecosystems (GDEs) be identified in Groundwater Sustainability Plans (GSPs). As a starting point, the Department of Water Resources (DWR) is providing the Natural Communities Commonly Associated with Groundwater Dataset (NC Dataset) online ¹¹ to help Groundwater Sustainability Agencies (GSAs), consultants, and stakeholders identify GDEs within individual groundwater basins. To apply information from the NC Dataset to local areas, GSAs should combine it with the best available science on local hydrology, geology, and groundwater levels to verify whether polygons in the NC dataset are likely supported by groundwater in an aquifer (Figure 1)¹². This document highlights six best practices for using local groundwater data to confirm whether mapped features in the NC dataset are supported by groundwater.



¹¹ NC Dataset Online Viewer: https://gis.water.ca.gov/app/NCDatasetViewer/

¹² California Department of Water Resources (DWR). 2018. Summary of the "Natural Communities Commonly Associated with Groundwater" Dataset and Online Web Viewer. Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Data-and-Tools/Files/Statewide-Reports/Natural-Communities-Dataset-Summary-Document.pdf

The NC Dataset identifies vegetation and wetland features that are good indicators of a GDE. The dataset is comprised of 48 publicly available state and federal datasets that map vegetation, wetlands, springs, and seeps commonly associated with groundwater in California¹³. It was developed through a collaboration between DWR, the Department of Fish and Wildlife, and The Nature Conservancy (TNC). TNC has also provided detailed guidance on identifying GDEs from the NC dataset¹⁴ on the Groundwater Resource Hub¹⁵, a website dedicated to GDEs.

BEST PRACTICE #1. Establishing a Connection to Groundwater

Groundwater basins can be comprised of one continuous aquifer (Figure 2a) or multiple aquifers stacked on top of each other (Figure 2b). In unconfined aquifers (Figure 2a), using the depth-to-groundwater and the rooting depth of the vegetation is a reasonable method to infer groundwater dependence for GDEs. If groundwater is well below the rooting (and capillary) zone of the plants and any wetland features, the ecosystem is considered disconnected and groundwater management is not likely to affect the ecosystem (Figure 2d). However, it is important to consider local conditions (e.g., soil type, groundwater flow gradients, and aquifer parameters) and to review groundwater depth data from multiple seasons and water year types (wet and dry) because intermittent periods of high groundwater levels can replenish perched clay lenses that serve as the water source for GDEs (Figure 2c). Maintaining these natural groundwater fluctuations are important to sustaining GDE health.

Basins with a stacked series of aquifers (Figure 2b) may have varying levels of pumping across aquifers in the basin, depending on the production capacity or water quality associated with each aquifer. If pumping is concentrated in deeper aquifers, SGMA still requires GSAs to sustainably manage groundwater resources in shallow aquifers, such as perched aquifers, that support springs, surface water, domestic wells, and GDEs (Figure 2). This is because vertical groundwater gradients across aquifers may result in pumping from deeper aquifers to cause adverse impacts onto beneficial users reliant on shallow aquifers or interconnected surface water. The goal of SGMA is to sustainably manage groundwater resources for current and future social, economic, and environmental benefits. While groundwater pumping may not be currently occurring in a shallower aquifer, use of this water may become more appealing and economically viable in future years as pumping restrictions are placed on the deeper production aquifers in the basin to meet the sustainable yield and criteria. Thus, identifying GDEs in the basin should done irrespective to the amount of current pumping occurring in a particular aquifer, so that future impacts on GDEs due to new production can be avoided. A good rule of thumb to follow is: if groundwater can be pumped from a well - it's an aquifer.

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¹³ For more details on the mapping methods, refer to: Klausmeyer, K., J. Howard, T. Keeler-Wolf, K. Davis-Fadtke, R. Hull, A. Lyons. 2018. Mapping Indicators of Groundwater Dependent Ecosystems in California: Methods Report. San Francisco, California. Available at: https://groundwaterresourcehub.org/public/uploads/pdfs/iGDE_data_paper_20180423.pdf
¹⁴ "Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act: Guidance for Preparing

 [&]quot;Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act: Guidance for Preparing
 Groundwater Sustainability Plans" is available at: https://groundwaterresourcehub.org/gde-tools/gsp-guidance-document/
 The Groundwater Resource Hub: www.GroundwaterResourceHub.org

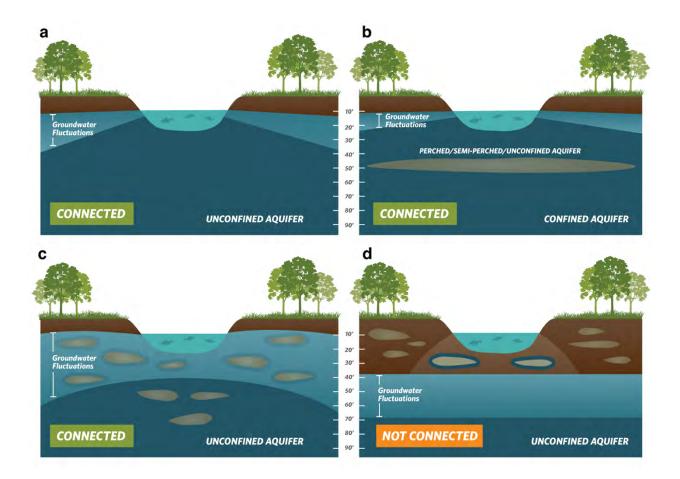


Figure 2. Confirming whether an ecosystem is connected to groundwater. Top: (a) Under the ecosystem is an unconfined aquifer with depth-to-groundwater fluctuating seasonally and interannually within 30 feet from land surface. (b) Depth-to-groundwater in the shallow aquifer is connected to overlying ecosystem. Pumping predominately occurs in the confined aquifer, but pumping is possible in the shallow aquifer. Bottom: (c) Depth-to-groundwater fluctuations are seasonally and interannually large, however, clay layers in the near surface prolong the ecosystem's connection to groundwater. (d) Groundwater is disconnected from surface water, and any water in the vadose (unsaturated) zone is due to direct recharge from precipitation and indirect recharge under the surface water feature. These areas are not connected to groundwater and typically support species that do not require access to groundwater to survive.

BEST PRACTICE #2. Characterize Seasonal and Interannual Groundwater Conditions

SGMA requires GSAs to describe current and historical groundwater conditions when identifying GDEs [23 CCR §354.16(g)]. Relying solely on the SGMA benchmark date (January 1, 2015) or any other single point in time to characterize groundwater conditions (e.g., depth-to-groundwater) is inadequate because managing groundwater conditions with data from one time point fails to capture the seasonal and interannual variability typical of California's climate. DWR's Best Management Practices document on water budgets¹⁶ recommends using 10 years of water supply and water budget information to describe how historical conditions have impacted the operation of the basin within sustainable yield, implying that a baseline¹⁷ could be determined based on data between 2005 and 2015. Using this or a similar time period, depending on data availability, is recommended for determining the depth-togroundwater.

GDEs depend on groundwater levels being close enough to the land surface to interconnect with surface water systems or plant rooting networks. The most practical approach 18 for a GSA to assess whether polygons in the NC dataset are connected to groundwater is to rely on groundwater elevation data. As detailed in TNC's GDE guidance document⁴, one of the key factors to consider when mapping GDEs is to contour depth-to-groundwater in the aquifer that is supporting the ecosystem (see Best Practice #5).

Groundwater levels fluctuate over time and space due to California's Mediterranean climate (dry summers and wet winters), climate change (flood and drought years), and subsurface heterogeneity in the subsurface (Figure 3). Many of California's GDEs have adapted to dealing with intermittent periods of water stress, however if these groundwater conditions are prolonged, adverse impacts to GDEs can result. While depth-to-groundwater levels within 30 feet of the land surface are generally accepted as being a proxy for confirming that polygons in the NC dataset are supported by groundwater, it is highly advised that fluctuations in the groundwater regime be characterized to understand the seasonal and interannual groundwater variability in GDEs. Utilizing groundwater data from one point in time can misrepresent groundwater levels required by GDEs, and inadvertently result in adverse impacts to the GDEs. Time series data on groundwater elevations and depths are available on the SGMA Data Viewer¹⁹. However, if insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons in the GSP until data gaps are reconciled in the monitoring network (see Best Practice #6).



Figure 3. Example seasonality and interannual variability in depth-to-groundwater over time. Selecting one point in time, such as Spring 2018, groundwater characterize conditions in GDEs fails to capture what groundwater conditions are necessary to maintain the ecosystem status into the future so adverse impacts are avoided.

SGMA Data Viewer: https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer

¹⁶ DWR. 2016. Water Budget Best Management Practice. Available at: https://water.ca.gov/LegacyFiles/groundwater/sqm/pdfs/BMP_Water_Budget_Final_2016-12-23.pdf

¹⁷ Baseline is defined under the GSP regulations as "historic information used to project future conditions for hydrology, water demand, and availability of surface water and to evaluate potential sustainable management practices of a basin."

^{[23} CCR §351(e)]

18 Groundwater reliance can also be confirmed via stable isotope analysis and geophysical surveys. For more information see The GDE Assessment Toolbox (Appendix IV, GDE Guidance Document for GSPs⁴).

BEST PRACTICE #3. Ecosystems Often Rely on Both Groundwater and Surface Water

GDEs are plants and animals that rely on groundwater for all or some of its water needs, and thus can be supported by multiple water sources. The presence of non-groundwater sources (e.g., surface water, soil moisture in the vadose zone, applied water, treated wastewater effluent, urban stormwater, irrigated return flow) within and around a GDE does not preclude the possibility that it is supported by groundwater, too. SGMA defines GDEs as "ecological communities and species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface" [23 CCR §351(m)]. Hence, depth-to-groundwater data should be used to identify whether NC polygons are supported by groundwater and should be considered GDEs. In addition, SGMA requires that significant and undesirable adverse impacts to beneficial users of surface water be avoided. Beneficial users of surface water include environmental users such as plants or animals ²⁰, which therefore must be considered when developing minimum thresholds for depletions of interconnected surface water.

GSAs are only responsible for impacts to GDEs resulting from groundwater conditions in the basin, so if adverse impacts to GDEs result from the diversion of applied water, treated wastewater, or irrigation return flow away from the GDE, then those impacts will be evaluated by other permitting requirements (e.g., CEQA) and may not be the responsibility of the GSA. However, if adverse impacts occur to the GDE due to changing groundwater conditions resulting from pumping or groundwater management activities, then the GSA would be responsible (Figure 4).

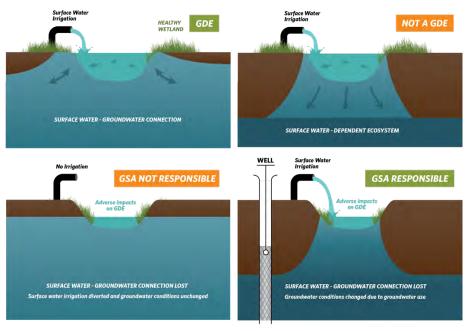


Figure 4. Ecosystems often depend on multiple sources of water. Top: (Left) Surface water and groundwater are interconnected, meaning that the GDE is supported by both groundwater and surface water. (Right) Ecosystems that are only reliant on non-groundwater sources are not groundwater-dependent. Bottom: (Left) An ecosystem that was once dependent on an interconnected surface water, but loses access to groundwater solely due to surface water diversions may not be the GSA's responsibility. (Right) Groundwater dependent ecosystems once dependent on an interconnected surface water system, but loses that access due to groundwater pumping is the GSA's responsibility.

²⁰ For a list of environmental beneficial users of surface water by basin, visit: https://groundwaterresourcehub.org/gde-tools/environmental-surface-water-beneficiaries/

BEST PRACTICE #4. Select Representative Groundwater Wells

Identifying GDEs in a basin requires that groundwater conditions are characterized to confirm whether polygons in the NC dataset are supported by the underlying aquifer. To do this, proximate groundwater wells should be identified to characterize groundwater conditions (Figure 5). When selecting representative wells, it is particularly important to consider the subsurface heterogeneity around NC polygons, especially near surface water features where groundwater and surface water interactions occur around heterogeneous stratigraphic units or aquitards formed by fluvial deposits. The following selection criteria can help ensure groundwater levels are representative of conditions within the GDE area:

- Choose wells that are within 5 kilometers (3.1 miles) of each NC Dataset polygons because they are more likely to reflect the local conditions relevant to the ecosystem. If there are no wells within 5km of the center of a NC dataset polygon, then there is insufficient information to remove the polygon based on groundwater depth. Instead, it should be retained as a potential GDE until there are sufficient data to determine whether or not the NC Dataset polygon is supported by groundwater.
- Choose wells that are screened within the surficial unconfined aquifer and capable of measuring the true water table.
- Avoid relying on wells that have insufficient information on the screened well depth interval for excluding GDEs because they could be providing data on the wrong aquifer. This type of well data should not be used to remove any NC polygons.

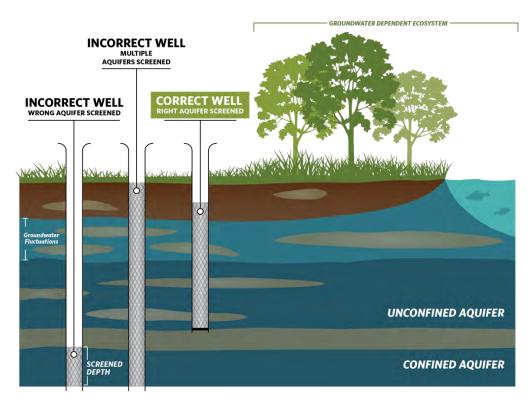


Figure 5. Selecting representative wells to characterize groundwater conditions near GDEs.

BEST PRACTICE #5. Contouring Groundwater Elevations

The common practice to contour depth-to-groundwater over a large area by interpolating measurements at monitoring wells is unsuitable for assessing whether an ecosystem is supported by groundwater. This practice causes errors when the land surface contains features like stream and wetland depressions because it assumes the land surface is constant across the landscape and depth-to-groundwater is constant below these low-lying areas (Figure 6a). A more accurate approach is to interpolate groundwater elevations at monitoring wells to get groundwater elevation contours across the landscape. This layer can then be subtracted from land surface elevations from a Digital Elevation Model (DEM)²¹ to estimate depth-to-groundwater contours across the landscape (Figure b; Figure 7). This will provide a much more accurate contours of depth-to-groundwater along streams and other land surface depressions where GDEs are commonly found.



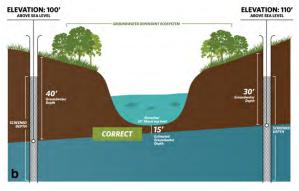


Figure 6. Contouring depth-to-groundwater around surface water features and GDEs. (a) Groundwater level interpolation using depth-to-groundwater data from monitoring wells. (b) Groundwater level interpolation using groundwater elevation data from monitoring wells and DEM data.

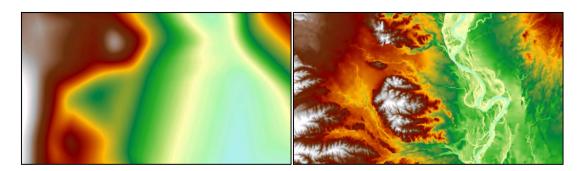


Figure 7. Depth-to-groundwater contours in Northern California. (Left) Contours were interpolated using depth-to-groundwater measurements determined at each well. (Right) Contours were determined by interpolating groundwater elevation measurements at each well and superimposing ground surface elevation from DEM spatial data to generate depth-to-groundwater contours. The image on the right shows a more accurate depth-to-groundwater estimate because it takes the local topography and elevation changes into account.

TNC Comments 180/400-Foot Aquifer Subbasin Draft GSP

²¹ USGS Digital Elevation Model data products are described at: https://www.usgs.gov/core-science-systems/ngp/3dep/about-3dep-products-services and can be downloaded at: https://iewer.nationalmap.gov/basic/

BEST PRACTICE #6. Best Available Science

Adaptive management is embedded within SGMA and provides a process to work toward sustainability over time by beginning with the best available information to make initial decisions, monitoring the results of those decisions, and using the data collected through monitoring programs to revise decisions in the future. In many situations, the hydrologic connection of NC dataset polygons will not initially be clearly understood if site-specific groundwater monitoring data are not available. If sufficient data are not available in time for the 2020/2022 plan, The Nature Conservancy strongly advises that questionable polygons from the NC dataset be included in the GSP <u>until</u> data gaps are reconciled in the monitoring network. Erring on the side of caution will help minimize inadvertent impacts to GDEs as a result of groundwater use and management actions during SGMA implementation.

KEY DEFINITIONS

Groundwater basin is an aquifer or stacked series of aquifers with reasonably well-defined boundaries in a lateral direction, based on features that significantly impede groundwater flow, and a definable bottom. 23 CCR $\S341(q)(1)$

Groundwater dependent ecosystem (GDE) are ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface. 23 CCR §351(m)

Interconnected surface water (ISW) surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water is not completely depleted. 23 CCR §351(o)

Principal aquifers are aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to <u>wells</u>, <u>springs</u>, <u>or surface water</u> systems. 23 CCR §351(aa)

ABOUT US

The Nature Conservancy is a science-based nonprofit organization whose mission is to conserve the lands and waters on which all life depends. To support successful SGMA implementation that meets the future needs of people, the economy, and the environment, TNC has developed tools and resources (www.groundwaterresourcehub.org) intended to reduce costs, shorten timelines, and increase benefits for both people and nature.

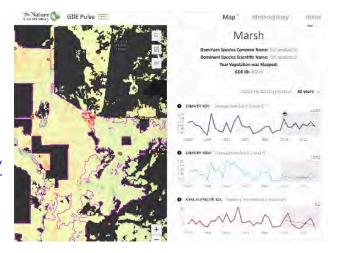
Attachment E

GDE Pulse

A new, free online tool that allows Groundwater Sustainability Agencies to assess changes in groundwater dependent ecosystem (GDE) health using satellite, rainfall, and groundwater data.



Visit https://gde.codefornature.org/



Remote sensing data from satellites has been used to monitor the health of vegetation all over the planet. GDE pulse has compiled 35 years of satellite imagery from NASA's Landsat mission for every polygon in the Natural Communities Commonly Associated with Groundwater Dataset²². The following datasets are included:

Normalized Difference Vegetation Index (NDVI) is a satellite-derived index that represents the greenness of vegetation. Healthy green vegetation tends to have a higher NDVI, while dead leaves have a lower NDVI. We calculated the average NDVI during the driest part of the year (July - Sept) to estimate vegetation health when the plants are most likely dependent on groundwater.

Normalized Difference Moisture Index (NDMI) is a satellite-derived index that represents water content in vegetation. NDMI is derived from the Near-Infrared (NIR) and Short-Wave Infrared (SWIR) channels. Vegetation with adequate access to water tends to have higher NDMI, while vegetation that is water stressed tends to have lower NDMI. We calculated the average NDVI during the driest part of the year (July–September) to estimate vegetation health when the plants are most likely dependent on groundwater.

Annual Precipitation is the total precipitation for the water year (October 1st – September 30th) from the PRISM dataset²³. The amount of local precipitation can affect vegetation with more precipitation generally leading to higher NDVI and NDMI.

Depth to Groundwater measurements provide an indication of the groundwater levels and changes over time for the surrounding area. We used groundwater well measurements from nearby (<1km) wells to estimate the depth to groundwater below the GDE based on the average elevation of the GDE (using a digital elevation model) minus the measured groundwater surface elevation.

²² The Natural Communities Commonly Associated with Groundwater Dataset is hosted on the California Department of Water Resources' website: https://gis.water.ca.gov/app/NCDatasetViewer/#

²³ The PRISM dataset is hosted on Oregon State University's website: http://www.prism.oregonstate.edu/



November 25, 2019

Mr. Gary Petersen, General Manager SVBGSA c/o Government Services P.O. Box 1350 Carmel Valley, CA 93924

Submitted via email: peterseng@svbgsa.org

Re: Comments on the DRAFT 180/400 Foot Aquifer Subbasin GSP

Dear Mr. Petersen,

Thank you for the opportunity to submit comments. The following comments are offered on behalf of The Otter Project / Monterey Coastkeeper (Monterey Coastkeeper is the water quality program of The Otter Project), our board of directors, and our 1000 members. The 180/400 foot aquifer GSP (Draft Plan or Draft GSP) is a terrific start, thanks to the determination of the SVBGSA staff, but, unfortunately, will fail to curb extractions and/or restore our most important aquifers.

Before critiquing the details of the Draft GSP, we must comment on the systemic flaw that underlies the Draft Plan's creation and will plague the Draft GSP's implementation: the structural over-representation of agricultural interests. Four seats of the eleven-seat board are allocated to agricultural interests and it is an open secret that several of the other seats were, by plan, aligned with agriculture.

Agricultural interests sponsored the first steps to form the groundwater sustainability agency (GSA). The "Consensus Building institute" started the process by interviewing a broad range of stakeholders and the first deliverable was a report that included a list of 20 stakeholder interests that must be represented on the initial organizing committee, and the report suggested a cap of 20 members for the organizing committee. The Grower-Shipper Association immediately demanded – and was given -- seven agricultural seats on the committee, effectively displacing other interests. That organizing committee recommended the structure of the GSA board and agricultural stakeholders then demanded four seats on the GSA board.

Critically, as it directly relates to the Draft GSA, the governing documents include a voting provision:

"Each Director has one vote, and the Board requires a simple majority (six Directors) for routine business, a super majority (eight Directors) for approving the Groundwater Sustainability Plan, budgets, and member termination, and a super majority plus (eight Directors, including three of the Agricultural Directors) for imposing fees and or pumping limits." emphasis added

The Central Coast Hydrologic Region, dominated by the Salinas Watershed, relies on groundwater more than any other region in California; 84% of our water comes from groundwater (the next closest region

is the South Lahonton that uses very little water in total, but 70% comes out of the ground)¹. Bringing the Salinas Basin to a sustainable groundwater balance will require money and sacrifice. Approximately 91-percent of all water use in Monterey County is for agriculture² and agriculture effectively has veto power over fees and pumping limits, a fatal flaw.

Comment One: The Plan is a plan to create a plan at a later date. The SGMA was passed by the California legislature in 2014 and GSAs have had five years to form and create plans for priority watersheds. The Draft GSA is incomplete. Over and over again the Draft Plan uses "Details to be Developed Later." This is unacceptable at this late date.

Instead of using best available data and modeling, the Draft GSP proposes to wait for a USGS model that has been promised for -- literally -- years. Instead of making a good effort to create a plan around the two existing models that call for reduction of extraction of 22 and 45 percent (in addition, see comment two below), the SVBGSA proposes to wait for a model that they hope will be more generous.

As noted, the Central Coast is the region most reliant on groundwater, critically over-drafted, and as noted by numerous studies of nitrate contamination,³ perhaps one of the most contaminated in the state. Waiting is not an option.

Comment Two: The amount of "Usable Storage" is over-estimated by 21 to 32 percent. As stated in section 5.3, the definition of usable storage is:

"[T]he annual average increase or decrease in groundwater that can be safely used for municipal, industrial, or agricultural purposes."

But the same paragraph goes on to state:

"Change in usable groundwater storage is the sum of change in storage due to groundwater level changes and the change in storage due to seawater intrusion."

"Usable" does not mean, just for agriculture. Just as saltwater is not available for agricultural use, nitrate contaminated groundwater is not available for municipal use. As outlined in the executive summary, three different studies have shown the lower Salinas basin groundwater to be heavily contaminated with nitrates.

Agricultural fields require the application of literally hundreds of pounds of chemicals per acre. ⁴ The impact of not considering nitrate laden groundwater is to allow pumping far above the seven-percent reduction mentioned is the Draft GSP. This pumped groundwater will then percolate through the chemical laden soils and further contaminate groundwater. The actions or inactions of the SVBGSA will directly impact water quality; by allowing excessive pumping water quality will be degraded, an action considered an "undesirable result" not allowed under the SGMA. This SVBGSA action or inaction could

¹ 2015. The 2014 Sustainable Groundwater Management Act, A Handbook to Understanding and Implementing the Law. Water Education Foundation.

² See groundwater extraction summaries at https://www.co.monterey.ca.us/government/governme

³ http://groundwaternitrate.ucdavis.edu/

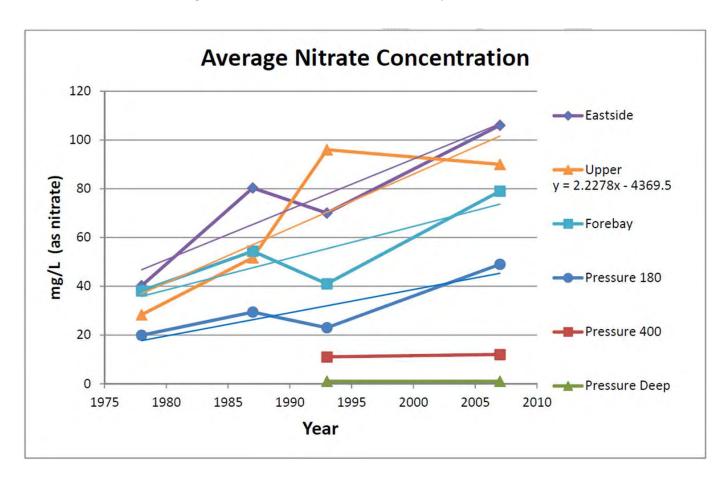
⁴ Various UC Extension and Department of Pesticide Regulation reports.

also violate the California Nonpoint Source Pollution Policy recently successfully litigated in the trial and appellate courts by Monterey Coastkeeper.

Comment Three: Nitrate laden groundwater plumes are ignored in the Draft GSA. The Draft GSA states at 7.5:

"There are no known significant contaminant plumes in the GSP area, therefore the monitoring network is monitoring non-point source pollution and naturally occurring water quality impacts."

This statement contradicts studies performed by the Monterey County Water Resources Agency, a partner agency for implementation of the GSP. Graphically, nitrate plumes in the 180/400 aquifers are demonstrated in the following illustration extracted from a MCWRA report⁵:



⁵ This graphic was extracted from MCWRA reports that have now been removed from the MCWRA website. The Otter Project would be able to find and provide this report from files provided by MCWRA during legal discovery if the Agency is unwilling to produce the study and information.

Increases in nitrate concentration are results of contamination plumes. Monitoring of plumes will most likely require a greater density of monitoring site.

Comment Four: The cost of priority projects is greatly underestimated. Not all projects were evaluated, but review of the <u>highest</u> priority project, Invasive Species Eradication, revealed a gross underestimation of the costs of the project. One must wonder if all project costs are under-estimated.

The concept is to remove the invasive reed *Arundo donax* and benefit from the resulting evapotranspiration water savings. Without question, removing Arundo is desirable and would have environmental benefits. However it is extremely expensive as evidenced by the very high cost of the 2014 removal of 75 acres; approximately 1500 acres remain. Referring to the removal project the Draft GSP states:

"Implementation costs for these projects are typically capital intensive with only minor long-term maintenance costs. Thus, the water supply benefit/cost ratio can increase significantly over the long term."

The concept that removal of 1500 acres of Arundo is financially feasible is a fallacy and the idea that the long term maintenance cost will be minor is equally flawed. As has been experience during the initial roll-out of the project, not all landowners are cooperative and Arundo will re-infest areas very quickly. Continuous removal will be required.

The benefits may be exaggerated as well: removal of Arundo do not result in bare dirt, the Arundo is replaced by other plants that could use a very significant amount of water, just as the Arundo did.

Comment Five: The Tiering Structure of the pumping allowances will be ineffective – for many years – in reducing over-extraction of groundwater. The Draft GSP states that sustainable pumping allowances will be developed over the first three years. We believe this first step is structured to take far longer. We believe determination of the allowances will take longer because of the structure of the board, and/or allowances will be overgenerous in pro-rata allocation and underpriced (limiting management actions) because of the structure of the board.

Once the sustainable pumping allowances are determined, the tiering structure is designed to not meet the goal of sustainable balance within 20 years. As stated on page 9-5, the Tier Two transitional pumping allowance will be phased out over 10 to 15 years. The result of three years of sustainable allowance planning and a 10 to 15-year transition means that it takes 13 to 18 years to even start to come to balance. Also as stated on page 9-5, "Maximum annual (calendar year) pumping between 2012 and 2017 will be used to determine transitional pumping allowances." In other words, the Draft GSP requires absolutely no reduction in pumping from the over-extraction-status-quo for the first 13 to 18 years and then "overnight" growers will be required to meet their sustainable pumping allowance.

We believe, the tiering structing leads to growers simply planning to pay supplemental charges instead of reducing pumping. Again, we must state that because of the board voting structure, the growers control the fees.

Comment Six: The ability to "Carry over" (9.2.3) or "Transfer" (9.2.4) saved water defeats the entire purpose of the Draft GSP and in addition, carry over water is simply "paper water" that will likely no

longer exist in the basin. Water moves. Pumping less that the allocation is a very good thing, but that water allowance can not be carried over into a future year as that water has moved downslope and may no longer be in the watershed.

We understand that these comments are a bit tough. But we believe that the past management of the Salinas Groundwater Basin has put us in a very deep deficit. Long ago, there were lakes surrounding Salinas, water literally gushed from the ground, fish – some species now locally extinct – were plentiful, and the lower Salinas River was free flowing all year, many or most years. We've long forgotten the stories of bricks being barged up the Salinas River to build Spreckles or the ferry that moved people and wagons across the river near where Highway 68 crosses the river today. Our "baseline" of experience has shifted. The lakes and salmon will never return, but we cannot sacrifice the River or our groundwater.

Thank you for your consideration.

Sincerely,

Steve Shimek

Executive Director



11 November 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA)

Re: November 14, 2019 Board of Directors Meeting
Item 4., General Public comment and Item 7.a, Initial Concepts on
Planning Actions and Implementation of the 180/400 Aquifer Draft
Groundwater Sustainability Plan (GSP)

Well over a year ago, my clients raised concerns about the GSA's approach, suggesting that above all else, a GSP needs to be "genuinely useful." March 7, 2018 letter to GSA Board. Since then, my clients have supported the GSA when it steered toward practical and useful approaches (e.g., the water charge framework) and raised concerns when it did not (e.g., a single GSP v GSP's for each basin/sub-basin). Unfortunately, some of the warnings and concerns in the March 2018 letter were prescient, e.g., the unavailability of a fully acceptable USGS model and ignoring the tool of management areas.

While the GSA -- its Board, staff, and consultant -- should be congratulated for the efforts to date, the meaningful metric is whether the draft 180/400 GSP both (1) meets the regulatory criteria and (2) is genuinely useful. As explained below, it fails both in varying degrees at various points.

There is overall a curious lack of precision in the draft GSA. The issue is not that some numbers have changed a bit. Such "refinement" is understandable, but some have changed materially. See e.g., below at 6. That the same analysis of what should be the same data, results in notably different outcomes suggests either a lack of transparency or precision, if not both.

The inconsistency is not limited to numerical values. The Draft GSP is not consistent in its use of critical terminology, especially around these terms: basin, sub-basin, and Valley (and their various permutations involving capitalization, hyphenation, or compound words). Consistency for the sake of consistency matters little, but those terms are used inconsistently in the draft GSP to mean different things. See below at 1. (That SGMA and its Regulations do not differentiate between basin and sub-basin is frustrating. Water Code § 10721(b)). When the GSP says "our basin" does it mean the 180/400 that is the subject of the GSP? Or the Salinas Valley Groundwater Basin of Bulletin 118, straddling two counties? Or does it mean the collection of sub-basins for which the GSA has responsibility? Or something else? The context can sometimes provide clues, but not always, and at the risk of readers'/reviewers' misunderstanding. A reader versed in SGMA, the local hydrology, and aware of local terms may be able to steer through the inconsistent terminology and come to the intended meaning, but that should not be the standard of clarity or transparency.

And finally, the GSP is not consistent between its granular statements and the more "summary" reporting of conclusion and implications. For example, as shown below, the GSP specifically describes and concludes that a certain proposed project would benefit primarily the Eastside, but when all the discussed projects are summarized for purposes of budgeting, that project is lumped into a "benefits the entire/all of the Valley/basin" category. The binary distinction between the 180/400 and "everything else" is false, misleading, and refuted by the granular portions of the draft GSP.

1. Key Terminology Lacks Rigorous Definition and Application

As it stands, the array of terms used to stand for one or more basins, combination of basins, portions of basins, etc. are inconsistent and impossible for the casual reader to accurately understand. The best approach is to add to the beginning portion a definition of the key terms <u>as used in the GSP</u> and then to rigorously adhere to such terms in the entire GSP, including appendices and supplemental materials. In addition, or alternately, the GSP can include something like a FAQ to educate the readers about the context of the key terms <u>in this GSP</u> (rather than just the statutory definitions).

- How many basins make up The Salinas Valley Basin per Bulletin 118?
- Of those, how many are the responsibility of the SVBGSA (e.g., Paso Robles basin)?
- Are there any basins not in the Bulletin 118 list of Salinas Valley basins for which SVBGSA has responsibility, exclusively or jointly? Which?
- How many GSP's does the SVBGSA needs to craft?

2. The Basin or Sub-basin Counts are Misleading and Confusing

The GSP is not sufficiently clear -- sometimes patently wrong -- about how many basins/sub-basins are at issue.

ES 1.1 at 1-1. The statement about seven sub-basins within Monterey County is literally true, but also naming them could provide clarity about which are germane to the SVBGSA.

ES 1.2 at 1-2. The language says all five sub-basins surrounding the 180/400 are high priority. False. The Monterey and Forebay are not presently designated high priority.

Appendix 11D, 1.1 at 1. The narrative states that "our groundwater basin is officially designated . . . as "Critically Over-Drafted." The 180/400 is so designated, but not the Salinas Valley basin itself. The false impression is further confused by references to multiple sub-basins in overdraft and five sub-basins being out of balance (when no analysis has yet been done to reflect which, other than the 180/400, are out of balance). § 1.5 at 3. These specific material

misstatements have been flagged before and staff volunteered at the Board of Directors meeting that the corrections would be made. October 9, 2019 Comment letter. On the other hand, if the GSA is treating Appendix 11D as a legacy document, i.e., not a statement of currently accurate and approved strategy, then the GSP should explicitly so note in the footer, table of contents, and otherwise so that a reader is not misinformed that the DWR has designated every sub-basin from Castroville to San Ardo as critically over drafted.

3. The GSP is Premised on a Demonstrably False Binary Distinction Between the 180/400 and "Valley-wide"

Some text in the GSP suggest that benefits of projects and management actions are either (1) specific to the 180/400 or (2) "Valley-wide." § 10.8 at 10-10, "Because the GSP is being developed in coordination with other GSP's in the Salinas Valley, the initial implementation costs are divided into costs that directly benefit the 180/400-Foot Aquifer Subbasin and the costs that benefit all Salinas Valley Subbasins." (emphasis added). The more detailed portions of the GSP refute that misleading dichotomy that "all" parts of the Valley will benefit or that benefits are "Valley-wide." Some projects and actions will benefit only the 180/400 but the rest are not all Valley-wide. As explained below, various projects and actions benefit specific sub-basins or a combination, rather than "all" or "Valley-wide."

Appendix 2A provides details of what benefits have been (at least preliminarily) analyzed when it comes to the projects, and thus shows that the rest have not. The tool used is the NSV model, which is spatially limited to north and east of the Forebay, concentrating on the 180/400 basin at this time. Appendix 9C at §§ 9c.3.1 at 3, Figure 9C-1 at 4 an § 9C.4 at 11. That means that all conclusion in the draft GSP about benefits of potential projects and actions for Salinas Valley sub-basins other than the 180/400 (and possibly the Eastside) are speculation.

Table 9C-3 (page 12) shows not only that the CSIP projects (including winter injection) benefit the CSIP, but also that the delivery of water to Chualar and Soledad provide benefits predominantly to the Eastside. That modeling analysis is consistent with the narrative text found in Chapter 9 about those projects. See §§ 9.4.3.2 at 9-30 (CSIP projects benefit CSIP), 9.4.3.8 at 9-53 (water diversion to Eastside) and 9.4.3.8.2 at 9-56 (water diversion to Eastside).

The GSP lacks precision in its categorizations. While it is true that the GSA contemplates a "Valley-wide" approach via the ISP, only a few -- and frankly the less critical early -- ISP chapters have been approved thus far. § 11.4 at 11-4. As noted above, the NSV benefit modeling for the 180/400 GSP was appropriately limited to the 180/400 area.

The several potential management actions suffer from a somewhat lesser reliance on the binary. For example, restricting pumping in the deep aquifer (Management Action 5) has no effect on the sub-basins outside of the deep

aquifer, e.g., the Upper Valley. § 9.3.6 at 9-18. The detailed discussions reflect the benefit expected is "reduced Subbasin pumping," meaning presumably the 180/400. § 9.3.6.2 at 9-19. The same can be said for Seawater Intrusion management and CSIP regulation, i.e., they are 180/400 management actions. Yet, those important distinctions about which areas benefit from which actions and projects are not carried over to where it matters -- Chapter 10.

Table 10-2 at 10-13 is misleading, if not outright in derogation of the detailed analyses of which parts of the Valley benefit from which of proposed projects and actions. For example, coordinating the Seawater Intrusion Working Group is categorized as "Valley-wide." Yet, there is no seawater intrusion in at least the Forebay and Upper Valley (and none in the Eastside, yet). Refining <u>all</u> projects and actions is also lumped into a "Valley-wide" category, even though many of those (examples of which are noted above) are admittedly for the benefit of only one or two sub-basins, e.g., the Chualar and Soledad diversions that benefit the Eastside and to a lesser degree the 180/400. Only one of the six priority projects of Table 9-1 (invasive species eradication) suggests potential benefits to areas south of Soledad/Chualar. § 9.4.3 at 9-24.

Table 10-1 at 10-12 purports to contain the planning level costs for the 180/400, but none of the planning costs for the actions and projects the GSP shows benefit some or all the 180/400 are included. The false binary of 180/400 and "everyone else" results in foisting the planning cost for the 180/400 actions and projects onto the "entire Valley" rather than on the 180/400 that benefits from such planning.

Tables 10-1 and 10-2 absolutely ignore or contradict Chapter 9's express statements of which areas benefit from which projects and actions. The two Tables are at least inaccurate, if not outright misleading and must be revised to include at least the 180/400 planning costs in the correct Table.

4. Certain Important Tables are Facially Confusing/Impenetrable

Separately, Tables 10-1 and 10-2 are confusing because they combine annual and lump sum amounts, and then seemingly annualize the total and divide by five. (Assuming for the moment the Tables are acceptable as is.) Yet the arithmetic just does not add up. To put it in blunt terms, the "entire Valley" is currently paying close to \$1.2 M in regulatory fees. According to Table 10-2, the Valley would pay \$1.8 M annually (a \$600 K increase spread over the entire Valley) for planning the additional "Valley-wide" projects and actions.

6. The Water Budgets Tacitly Admit They Do Not Comply with SGMA Standards

Water budgets presented in a GSP are subject to the SGMA regulations. § 354.18(c)(2)(C), (c)(3), and (e) and its "best available" standards for the historical, current, and projected water budgets. The GSP acknowledges that

likely double counting in its analysis, based on reports of water diversions (1) to the State (eWRIMS) as surface water and (2) to the MCWRA as groundwater. See e.g., § 6.4.1 at 6-11. The GSA was instructed how it can resolve the double counting, but it has chosen to not do so. See July 11, 2019 Comment letter, including the June 4, 2019 email pointing out that a comparison of database entries available to the GSA can identify double counts, which the public cannot duplicate as it lacks access to the non-public database. The GSA's choice not to analyze data willfully perverts the "best available" standards. It is akin to estimating the weight of a package by picking it up in one's hand when a digital scale is available, but one refuses to bring the package to the scale. The public is left to speculate whether the double counts are material, and if so, how they affect the integrity of the calculations.

The projected surface water budget is absent. § 6.10.6 at xii. The caveat at that section is unclear whether the "will be included as soon as available" means before the GSP is due (which the public will not be able to properly review) or if it means after the GSP is submitted. The implication elsewhere is that it will only be available well after the GSP is submitted. § 6.10.2 at v ("The surface water budget will be provided after the model post-processing analysis is completed")

6. The Water Budgets Analyses Have Inexplicably Changed From the Prior Iteration

Surface dynamics appear to have changed considerably in Chapter 6 since its last iteration was approved by the Board in July 2019. Section 6.5.2 used to be headed as "deep" percolation of precipitation, but now the "deep" is absent. Cf. July 4, 2019 Chapter 6 page 12 with current Chapter 6 at 6-14. Not only has the evapotranspiration component been removed from the calculus, but the amount of precipitation for both the historic and current water budgets have materially changed. Cf. Tables 6-8 in both (e.g., previously reported 67 K current water budget precipitation whereas current Table 6-8 reflects 106,600 af)¹. Runoff for the historical water budget was previously 7 K whereas now it is around 1 K. Tables 6-9 purport to report the same information in both the July and current Chapter 6, i.e., both Tables have the same heading and are found in the same section of the GSP, but the last line of the current version of the Table does not break down the individual return flows and percolation numbers, while the prior one did. In other words, the latest "improvement" to Table 6-9 is to reduce precision and transparency. Cf. also Tables 6-118 with 6-19 and 6-19 with 6-20, below. Making analyses less transparent is the wrong direction.

One would expect the past and current precipitation numbers are based on objective third-party reports and hence are static. Note that the sub-basin sustainable yield is reported as 97,200 AAF. § 6.8.5 at 6-32. Consider whether the last-minute 30 K increase in precipitation may be material to calculating the water budget for the 180/400.

Many other Tables in Chapter 6 have changed since that chapter was approved for public review in July 2019. <u>Cf.</u> GSP Draft Tables 6-17, 6-18, 6-19, and 6-20 at pages 6-22, 6-23, 6-26. and 6-27 <u>with July 4, 2019 Chapter 6 Tables 6-16, 6-17, 6-18, and 6-19 on pages 19, 22, and 23. Those earlier Tables are enclosed for comparison. Most striking is the difference between current Table 6-19 and prior Table 6-18. Among the jarring differences comparing Tables that are labeled as reflecting the same information/calculation:</u>

July 4, 2019 Chapter 6 release	Current Draft Chapter 6 of GSP
Table 6-16. Precipitation runoff	Table 6-17. Precipitation runoff of
of 69,900	9,400
Table 6-16. Min and max river	Table 6-17. Min and max river
diversions of 2,800 to 22,400	diversions of 6,500 to 9,200
Table 6-17. Forebay and Eastside	Table 6-18. Forebay and Eastside
numbers switched (and adjusted)	numbers switched (and adjusted)
Table 6-18. Four elements	Table 6-19. Three elements
summed for inflow.	summed for inflow.
Table 6-18. Streamflow	Table 6-19. Streamflow
percolation of 73,300	percolation of 50,000
Table 6-19. Four elements	Table 6-20. Three elements
summed for inflow.	summed for inflow.

The water budget tables have been more than a little "adjusted" since the public last saw them. No explanation is given, for example, why certain factors were combined when calculating net numbers, much less why certain numbers changed substantially. Explanations and presentations on the changes are needed.

7. GSP Ignores the Tool of a Management Area

The GSP states that no management areas have been defined for the 180/400. § 7.1.3 at 7-2. Elsewhere, the GSP explains that management areas are appropriate where "projects and management actions [are] based on differences in water use sector, water source types . . . or other factor." § 8.1 at 8-2. The CSIP meets the requirements of a management area. Its primary water source is different than all other agriculture, e.g., recycled water. The "water charges framework" on which much of the management actions (and projects) are premised reflects that the CSIP will have its own management, i.e., additional CSIP deliveries, and the "allowance" are expected to be unique. § 9.2.2 at 9-5. See also § 9.3.5 at 9-16 (ordinance to prevent use of groundwater in CSIP). Many of the projects are specially designated as for the CSIP, e.g., §§ 9.4.2 at 9-24 (Table 9-1 showing projects 2-5) and 9.4.3.2 at 9-31 (heading: CSIP PROJECTS). Certain management actions are also highly specific to the CSIP. § 9.3.5 at 9-16 (Action 4, restrictions on CSIP pumping). The CSIP differs from

the general infrastructure, economics, burdens, and benefits of other agriculture in the 180/400 and should be managed with those differences in mind, i.e., a management area.

The GSA is not per se obligated to create a management area for the CSIP, but the regulatory standard strongly suggests it is better for it to explicitly do so. "Each Agency may define one or more management areas within a basin if the Agency has determined that creation of management areas will facilitate implementation of the Plan." Regs. § 354.20 (emphasis added). As described above, the GSP acknowledges that the CSIP should be treated differently, e.g., water allowances, projects, management actions, all of which would help to facilitate the goal of sustainability of the 180/400. It would be more honest and transparent for the GSP to acknowledge up front that it is planning a management area for the CSIP, rather than wait for the public and/or DWR to so demand.

Conclusion

SGMA was designed to achieve sustainability in the real world, as opposed to certain prior legal requirements that were facially administrative mandates to generate paper that would have little or no real-world consequences. Missing a deadline outright is not the worst outcome, as SGMA provides notice and a hearing before any action is taken. Water Code §§ 5202 (water extraction reporting -- involving substantial fees -- applies to a probationary basin 90 days after a determination and does not require those who already report their diversions to the state via eWRIMS to do so again); 10736 (90 day notice before hearing to determine whether to place a basin in probationary status). Moreover, this first GSP will set the standard for later GSP's so the stakes are that much higher for all the sub-basins that are or may be required to have GSP's.

On behalf of my clients, the GSA is urged to get it right rather than to meet a deadline. The ideal is to get it right and meet the deadline, but if one of those must take priority, getting it right is much more important to the real world (e.g., health, jobs, economy, and the rest of the factors that constitute sustainability) than administrative success². An administrative failure that results in real-world success must always takes precedence over the converse.

The GSA surely understands its responsibilities, e.g., § 9.1 at 9-1. But the draft GSP requires substantial revisions and explanations before the public or the DWR can accept it. Revise the GSP until it is as good as the "best available" data and science allow, clarify the confusion in terminology, clarify which basins

No timing criticism is directed at staff or consultants, who had to labor with the ever shifting and ultimately counter-productive timing on the availability of the USGS model.

matter or are involved in which projects, actions, (Chapter 9) and benefits (Chapter 10) or state such matters are not yet known, and only then submit it.

Very truly yours,

Thomas S. Virsik

Thomas S. Virsik

Enclosures
July 4, 2019 Draft Chapter 6 (publically released)
Tables 6-8, 6-9, 6-16 through 6-19
Virsik to SVBGSA BOD, July 10, 2019 letter with attachments

Because the estimated flow to agricultural drains is a combination of flow from precipitation and applied irrigation, it is not explicitly removed from the percolation calculation. Rather, it is removed from the total recharge calculations.

Based on these estimates, the estimated deep percolation of precipitation is calculated in Table 6-8

Average for the Historical Water Budget (AF/yr.) (AF/yr.)

Total precipitation 100,400 67,800

7.400

81,800

11,200

2.000

59,300

6,500

Table 6-8: Deep Percolation from Precipitation for Historical and Current Water Budget

6.5.3 Deep Percolation of Excess Irrigation

Runoff

Evapotranspiration

Deep percolation

Applied irrigation water that is not consumptively used by plants and is not captured as return flow by agricultural drains percolates below the root zone and becomes an inflow component to the groundwater budget. The total amount of water applied for irrigation is the sum of the groundwater pumping for irrigation, Salinas River diversions for irrigation, and CSIP deliveries.

- Agricultural pumping is reported annually by MCWRA for the Pressure Management Area. This value is adjusted proportionally for the area of the Subbasin relative to the total area of the Pressure Management Area.
- Salinas River diversions in the Subbasin are estimated from eWRIMS data for 2010 to 2017; and the average values for those years are applied to earlier years in the water budget.
- CSIP deliveries began in 1999 and are reported annually.

Crop consumptive use was estimated using an average irrigation efficiency of 80% for the Subbasin. This means 80% of applied irrigation is consumed by evapotranspiration and 20% becomes either return flow to agricultural drains or deep percolation to groundwater.

Table 6-9 presents the calculated deep percolation of irrigation without accounting for return flow to agricultural drains.

Table 6-9: Deep Percolation from Excess Irrigation for Historical and Current Water Budget

	Average for the Historical Water Budget (AF/yr.)	Average for the Current Water Budget (AF/vr.)
Total Agricultural Applied Water	108,600	112,300
Crop Consumptive Use	86,900	89,900
Irrigation return Flow	10,000	18,000
Deep Percolation to Groundwater	11.700	4.500

6.5.4 Subsurface Inflows from Adjacent Subbasins

Based on groundwater flow directions and hydraulic gradients at the Subbasin boundaries, subsurface inflow to the 180/400-Foot Aquifer Subbasin from the Forebay Subbasin has been estimated at approximately 17,000 AF/yr. (Montgomery Watson, 1997; MCWRA, 2006; Brown and Caldwell, 2015). The boundary with the Monterey Subbasin is subparallel to groundwater flow direction resulting in a small amount of subsurface flow between the basins. The flow between basins is estimated as a net inflow of 3,000 AF/yr. from the Monterey Subbasin into the 180/400-Foot Aquifer Subbasin based on quantities reported by Montgomery Watson (1997). The estimated values are assumed constant for the historical and current water budgets. Groundwater generally flows from the 180/400-Foot Aquifer Subbasin into the Eastside and Langley Subbasins, as well as to Pajaro Valley. These subsurface outflows are quantified in Section 6.6.3.

The boundary flows will be reassessed when the calibrated historical SVIHM is available. Table 6-10 summarizes the subsurface inflow components for the historical and current water budgets.

Table 6-10: Subsurface Inflow from Adjacent Subbasins in Historical and Current Water Budgets

	Average for the Historical Water Budget (AF/yr.)	Average for the Current Water Budget (AF/yr.)	Notes
Inflow from Forebay Subbasin	17,000	17,000	Estimate from Brown and Caldwell (2015)
Inflow from Monterey Subbasin	3,000	3,000	Estimate from Montgomery Watson (1997)
Total Inflows	20,000	20,000	

Table 6-16: Summary of Historical Surface Water Budget

Inflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Surface Water Inflows			
	Salinas River from Forebay Subbasin	311,900	5,000	1,154,900
	Tributaries from East Side Subbasin	2,300	00	11,800
	Precipitation Runoff	7,400	0	69,900
	Irrigation Return Flow	10,000	5,000	16,400
TOTAL INFL	ÓW	331,600	12,900	1,246,500
Outflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Surface Water Outflows			_
	Salinas River Diversions	9,700	2,800	22,400
	Salinas River Outflow to Monterey Bay	240,700	0	1,250,600
	Other Outflows to Monterey Bay	7,400	2,400	13,800
	Net Percolation of Streamflow to Groundwater	73,300	5,000	80,000
TOTAL OUT	FLOW	331,000	16,100	1,360,300

Table 6-17: Summary of Current Surface Water Budget

Inflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Surface Water Inflows		, , ,	
	Salinas River from Forebay Subbasin	163,600	0	3,900
	Tributaries from East Side Subbasin	900	3,300	477,600
	Precipitation Runoff	2,000	0	2,600
	Irrigation Return Flow	18,000	8,700	30,800
TOTAL INF	LOW	184,500	12,000	514,900
Outflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Surface Water Outflows			
	Salinas River Diversions	7,900	7,400	8,200
	Salinas River Outflow to Monterey Bay	103,400	0	310,100
	Other Outflows to Monterey Bay	15,400	6,100	28,200
	Net Percolation of Streamflow to Groundwater	31,100	3,300	80,000
TOTAL OU	TFLOW	157,700	17,600	425,700

The surface water budget components are highly variable. Figure 6-3 illustrates the annual inflow and outflow components for the historical budget period. The diagram uses stacked bar

height to illustrate the magnitude of budget components for each year, with inflows shown on the positive y-axis and outflows on the negative y-axis. The inflow and outflow components for each year are tabulated in Appendix 6A.

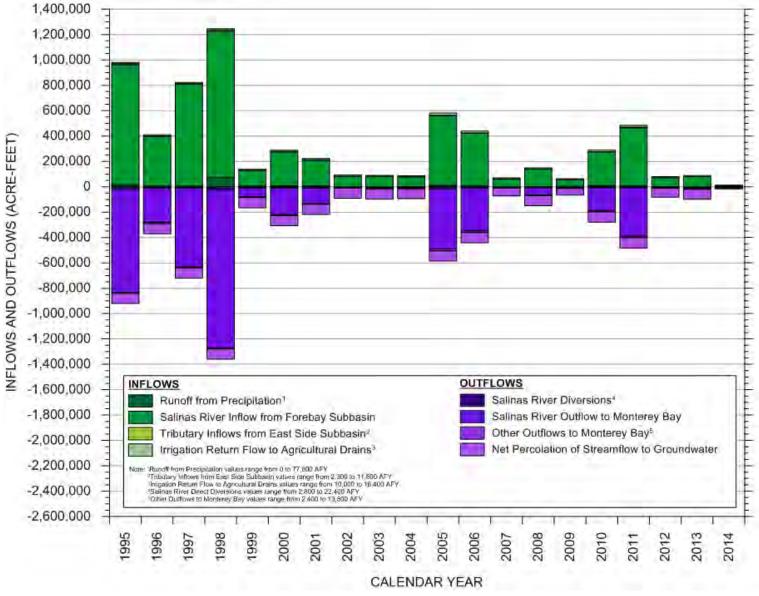


Figure 6-3: Historical Surface Water Budget

6.8.2 Groundwater Budget

The groundwater inflow and outflow components described in Sections 6.5 and 6.6 are combined to generate annual groundwater budgets for the historical (1995-2014) and current (2015-2017) budget periods.

Table 6-18 summarizes the average, minimum, and maximum annual values for each component of the historical groundwater budget. Table 6-19 summarizes the average, minimum, and maximum annual values for each component of the current groundwater budget.

Table 6-18: Summary of Historical Groundwater Budget

Inflow	Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
Net Percolation of Streamflow to Groundwater	73,300	5,000	80,000
Precipitation Percolation to Groundwater	11,200	0	22,800
Irrigation Percolation to Groundwater	11,700	5,200	18,100
Subsurface Inflows from Adjacent Subbasins	20,000	20,000	20,000
TOTAL INFLOW	116,200	52,600	133,500
		<u>, </u>	
Outflow	Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
Pumping - Total Subbasin	108,300	93,200	131,100
Agricultural	89,000	76,200	110,800
Urban	19,000	14,000	27,500
Rural Domestic	400	300	400
Riparian Evapotranspiration	12,000	12,000	12,000
Subsurface Outflows to Adjacent Subbasins/Basin	9,500	9,500	9,500
TOTAL OUTFLOW	129,800	114,600	152,500
	,		
Storage	Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
Change in Storage	-13,700	-77,600	16,700

Table 6-19: Summary of Current Groundwater Budget

Inflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Net Percolation of Streamflow to Groundwater	31,100	3,300	80,000
	Precipitation Percolation to Groundwater	6,500	0	10,800
	Irrigation Percolation to Groundwater	4,500	-9400 ¹	15,500
	Subsurface Inflows from Adjacent Subbasins	20,000	20,000	20,000
TOTAL INFLOW		62,100	38,700	101,400
Outflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Pumping - Total Subbasin	109,300	108,400	111,000
	Agricultural	91,900	89,000	97,700
	Urban	17,000	12,900	19,000
	Rural Domestic	400	400	400
	Riparian Evapotranspiration	12,000	12,000	12,000
	Subsurface Outflows to Adjacent Subbasins/Basin	9,500	9,500	9,500
TOTAL O	UTFLOW	130,800	129,900	132,600
		•		
Storage		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Change in Storage	-68,700	-28,500	-93,800

¹Negative percolation due to extremely high flows in the Rec ditch in 2017, which is all subtracted from irrigation. Some Rec Ditch flows should be subtracted from precipitation. The total recharge from both irrigation and precipitation is correct

The annual groundwater budget components are variable, although not as variable as the surface water budget components. Figure 6-4 illustrates the annual inflow and outflow components for the historical budget period. The diagram uses stacked bar height to illustrate the magnitude of budget components for each year, with inflows shown on the positive y-axis and outflows on the negative y-axis. The inflow and outflow components for each year are tabulated in Appendix 6A.



10 July 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA) Board of

Directors

Re: July 11, 2019 meeting

Agenda Item 4.a ASGSA coordination

Agenda Item 4.b Chapter 6 of 180/400 GSP

ASGSA Coordination

On behalf of the Orradre and Scheid interests -- both of which have interests and/or lands in or near the Arroyo Seco area, a coordination agreement for a management area under the jurisdiction of the Arroyo Seco GSA (ASGSA) appears premature. Any concern is borne of ignorance, not animosity. Several maps exist of the current, projected, and other configuration of the lands that may be the management area of the ASGSA, e.g., at the DWR portal and in ASGSA public documents. The maps tend to appear "ragged" or riddled with "holes." Such maps may not pass the "straight face" test with the public or DWR irrespective of whose/which lands constitute the holes or peculiar edges. If the "holes" or "ragged edges" impact a client, then there may be further reasons for concern around inconsistent approaches to overall management.

The public discussions and materials -- mostly from the ASGSA -- reflect that the ASGSA desires the input of the landowners that may be affected and would seek it out. "The Subcommittee suggested meetings be held with property owners that have not been included in the set of properties presented to DWR." ASGSA Advisory Committee minutes (draft) for June 2019. While (1) I have had discussions to set a time/place for meetings and (2) informal, i.e., not subject to public disclosure or verification, overtures have been made to my clients by individuals, the ASGSA has yet to present its proposal(s) to my clients. On behalf of my clients, I urge the SVBGSA to take no action on the ASGSA coordination agreement and allow further time for the ASGSA¹ to initiate and conclude discussion or negotiation with landowners with whom it chooses to

¹ I am aware of the subcommittees and staff at both the ASGSA and GSA that are working on coordination. Those subcommittees are the obvious vector for discussions, at least initially, rather than the full Boards of either entity.

engage. As the ASGSA and/or GSA Plan for (parts of) the Forebay is not due until 2022, there appears is ample time for a thorough process.

Chapter 6 draft

Many commenters have provided input on the iterations of Chapter 6 that were before the Planning Committee and the Advisory Committee. The agenda packet contains a matrix of such comments. Pages 58-59. I have included my prior two letters for the sake of transparency and consistency, but also provide the below comments on (1) what has changed in the draft and (2) what should have changed, but has not.

NOTE ON REFERENCES

For ease of tracking (given the content will eventually be in other agenda packets), the following format is used: xx/yy, in which xx is the page of the Chapter and yy is the page of the paginated packet. Both numbers are found on the right-hand corner of the page.

CHAPTER STILL LACKS CURRENT SUSTAINABLE YIELD CALCULATION The current sustainable yield calculation is still absent. That has not changed in any iteration to date. At 6.8.4 the draft Chapter purports to address "sustainable yield" but the text confines itself to the <u>historical</u> sustainable yield, being 95,700 AFY. Table 6-20 at 25/42. (Note that the text right above the table uses a different figure of <u>97,300</u> AFY.)

The sustainable yield calculation is achieved by subtracting the sum of seawater intrusion and change in storage from the total pumping. 25/42². Applying the same formula as that used to calculate historical sustainable yield to calculate current sustainable yield from the parallel values Table 6-19 (23/40), the current sustainable yield appears to be 40,600 AFY for the 180/400 (109,300 - 68,700 = 40,600). The reduction in pumping needed to achieve current sustainable yield based on the data in Chapter 6 through section 6.8.4, is over 50%. While sustainable yield is not "sustainability" itself, the omission of the current sustainable yield is troubling, pointing to a failure to meet a core regulatory requirement. Emergency GSP Reg. 354.18(b)(5) (the historic, current, and projected water budgets must include quantification of overdraft when basin deemed in overdraft per Bulletin 118).3

Also, whether the historical sustainable yield is itself accurate is undermined by the text which recites a total pumping figure of 86,5500 AFY but uses 108,300 in Tables 6-20 and 6-31. Cf 25/42 with 37/54 and 38/55.

Seawater intrusion and groundwater level changes are apparently lumped together as "change in storage" when calculating historical sustainable yield in Table 6-20 on 25/42.
 That "overdraft" may be calculated from the figures and values presented does not obviate the GSP regulatory requirement of quantifying "overdraft" for the several water budgets.

FUTURE SUSTAINABLE YIELD STILL BASED ON QUESTIONABLE ASSUMPTIONS

The latter portion of draft Chapter 6 -- using the SVIHM, not reported data -- calculates the <u>future</u> sustainable yield. The assumptions include a two-thirds reduction in seawater intrusion from 10,500 to around 3,500 AFY. <u>Cf.</u> Table 6-30 <u>with</u> Table 6-15. 37/54 and 18/35. Consultant Williams explained that the difference arose from the CSIP projects coming online, i.e., the projects were built and started performing during the historical period while the future projections assumed the projects were preforming at full capacity. My follow-up comment after the explanation was that it was unrealistic to assume the projects would perform perfectly (now and) in the future and not founded on the "best available" data. I and others noted that the Monterey County Resources Agency (MCWRA) has substantial data on the real-world efficiency/performance of the projects. The GSA can obtain that data, (1) disclose and (2) use it in its future projections of water needs. As it stands, the future projections of Chapter 6 are at best aspirational, when ready data exists that could support realistic projections.

On the ground reality is not simply preferable, but required under SGMA. As my March 2017 letter noted early on, for a basin in overdraft like the 180/400, SGMA requires calculating the "demand reduction" or other methods to mitigate overdraft.

If overdraft is an issue (i.e., overdraft that causes seawater intrusion near the coast), then SGMA requires projecting a reduction of water use that mitigates overdraft. § 354.44(b)(2). For the Salinas Valley, the projection would entail a reduction of localized pumping (the 180/400 sub basin), as reduction of pumping in the other areas have little or no effect. . . . That option must be explored for the GSP to meet SGMA standards. Whether that simple and tailored approach is preferable to other potential ones (given political, fiscal, economic, environmental, etc. factors) is unknown, but SGMA mandates such an approach be included in the GSP.

March 2017 letter, pages 6-7. The current iterations of Chapter 6 may not be a sufficient basis for later chapters that address how much pumping reductions, in what areas and at what times, mitigates overdraft (a must-be-included potential "management action" in SGMA nomenclature).

SURFACE WATER EXTRACTIONS STILL UNRELIABLE

"Surface" water reports to the State are public, unlike "groundwater" reports to the MCWRA. Total surface water diversions are quantified but have not been cross-checked to eliminate double-counting. My letter of June 4, 2019 provided a real-world example of a state report from the 180/400 area that the GSA -- but not the public -- can check against the MCWRA data to find out if there is double-counting. Appendix 6A contains the data used to calculate the surface water diversions in draft Chapter 6, but the data is a mere aggregation. There is

no reason for the GSA to withhold the <u>public</u> data it obtained from the state database, eWRIMS, that it then aggregated.

The order of magnitude of surface pumping reported is not trivial, being around 7,900 AFY on average. 10/27. Changes of similar orders of magnitude have occurred between the initial version of Chapter 6 seen by the Planning Committee to the one before the Board. Updating the draft Chapter because of better data and analyses is good, but it begs the question of why those data command renewed attention while others, e.g., the real-world performance of the CSIP projects and the double-counting of surface/groundwater, do not. By way of example, Table 6-19 is set forth below as it appeared in the initial draft and as it appears now, with highlighting added to illustrate changes.

Table 6-19: Summary of Current Groundwater Budget

	rabio o 171 danimary or darront or daniamater Dauget			
Inflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Net Percolation of Streamflow to Groundwater	31,100	3,300	80,000
	Precipitation Percolation to Groundwater	<mark>11,600</mark>	5,000	<mark>6</mark>
	Irrigation Percolation to Groundwater	4,500	-9,500	15,500
	Subsurface Inflows from Adjacent Subbasins	20,000	20,000	20,000
II JATOT	NFLOW	67,200	43,800	105,700
Outflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Pumping -Total Subbasin	109,300	108,400	111,000
	Agricultural	91,900	89,000	97,700
	Urban	17,000	12,900	19,000
	Rural Domestic	400	400	400
	Riparian Evapotranspiration	12,000	12,000	12,000
	Subsurface Outflows to Adjacent Subbasins/Basin	3,200	-9,500	9,500
TOTAL O	UTFLOW	124,400	110,900	132,500
Storage		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Change in Storage	-57,300	-88,700	-5,200

Table 6-19: Summary of Current Groundwater Budget

Inflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Net Percolation of Streamflow to Groundwater	31,100	3,300	80,000
	Precipitation Percolation to Groundwater	<mark>6,500</mark>	O	10,800
	Irrigation Percolation to Groundwater	4,500	-94001	15,500
	Subsurface Inflows from Adjacent Subbasins	20,000	20,000	20,000
TOTAL IN	IFLOW	62,100	38,700	101,400
Outflow		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Pumping -Total Subbasin	109,300	108,400	111,000
	Agricultural	91,900	89,000	97,700
	Urban	17,000	12,900	19,000
	Rural Domestic	400	400	400
Riparian Evapotranspiration		12,000	12,000	12,000
	Subsurface Outflows to Adjacent Subbasins/Basin	<mark>9,500</mark>	9,500	9,500
TOTAL O	UTFLOW	130,800	129,900	132,600
Storage		Average (AF/yr.)	Minimum (AF/yr.)	Maximum (AF/yr.)
	Change in Storage	<mark>-68,700</mark>	<mark>-28,500</mark>	-93,800

Similar order of magnitude of changes or corrections can be seen in other data, e.g., Tables 6-18 and 6-29 (of questionable addition). But no similar updates exist about the surface/groundwater double-counting risk or the actual performance/efficiency of the CSIP projects.

CONCLUSION

Iterating the data and analyses is good in general, but not when the effort is selectively applied. In its third iteration, draft Chapter 6 still fails (1) to address a key regulatory requirement (explicitly calculating and disclosing overdraft and the current sustainable yield), (2) report and use MCWRA data about the CSIP projects' on-the-ground efficiency and performance, and (3) address double-counting from surface and groundwater reports.

Very truly yours,

Thomas S. Virsik

Thomas S. Virsik

Encl.

6 June 2019 comment letter to GSA Planning Committee 18 June 2019 comment letter to GSA Advisory Committee

Thomas S. Virsik

ATTORNEY AT LAW

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4 June 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA) Planning Committee

Re: Agenda Item 4.b

Chapter 6 of 180/400 GSP

The below are comments and suggestions for the draft Chapter 6 of the 180/400 GSP. As presented, the draft Chapter fails to meet the minimum requirements of SGMA, lacking literally the word "overdraft" in its text. Emergency GSP Reg. 354.18(b)(5) (the historic, current, and projected water budgets must include quantification of overdraft when basin deemed in overdraft per Bulletin 118).

NOTE ON REFERENCES

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CHAPTER SKIRTS AROUND IMPORTANT SUSTAINABLE YIELD CALCULATION Chapter 8 revealed that the <u>future</u> sustainable yield of the entire Valley is estimated at 494,000 AFY. Chapter 8 19/196 (at Planning Committee). What is the <u>current</u> sustainable yield for the 180/400? That specific query does not appear addressed in draft Chapter 6. At 8.6.4 the draft Chapter purports to address "sustainable yield" but the text confines itself to the <u>historical</u> sustainable yield, being 95,700 AFY. 22/41. The text equates that to a 10% reduction in pumping from the historical average.

The sustainable yield calculation is achieved by subtracting the sum of seawater intrusion and change in storage from the total pumping. Those values come from the chart for the historical groundwater budget. $19/38^2$. Applying the same formula as that used to calculate historical sustainable yield to calculate <u>current</u> sustainable yield from the parallel values in the parallel summary chart (20/39), the current sustainable yield appears to be 52,000 AFY for the 180/400. <u>I.e.</u>, delta between inflows and outflows at Tables 6-18, 6-19, and 6-20 (109,300 - 57,300 = 52,000). The reduction in pumping needed to achieve <u>current</u> sustainable yield based on the data in Chapter 6 through section 6.8.4, is near 50%. While sustainable yield is not "sustainability" itself, the

_

¹ That "overdraft" may be calculated from the figures and values presented does not obviate the GSP regulatory requirement of quantifying "overdraft" for the several water budgets. Whether the next Chapter revision is one of editing (e.g., a change of terminology) or of arithmetic (e.g., add an extra calculation labelled "overdraft" in certain tables) is a matter for the GSA and its consultant.

² Seawater intrusion and groundwater level changes are apparently lumped together as "change in storage" in the charts on 19/38 and 20/39 (last entry in both).

omission of the <u>current</u> sustainable yield is troubling, pointing to a failure to meet a core regulatory requirement. Reg. 354.18(b)(5).

FUTURE SUSTAINABLE YIELD BASED ON QUESTIONABLE ASSUMPTIONS The latter portion of draft Chapter 6 -- using the SVIHM, not reported data -- calculates the <u>future</u> sustainable yield. The assumptions include a two-thirds reduction in seawater intrusion from 10,500 to around 3,500 AFY. <u>Cf.</u> Table 6-30 with Table 6-15. 34/53 and 15/34. How that significant reduction occurs while projected pumping <u>increases</u> beyond historical levels is not explained. 34/53 (pumping of 86,500 AFY for historical sustainable yield v. pumping of 115,300 to 120,600 AFY for projected). Moreover, the calculated historical sustainable yield in Chapter 6 did <u>not</u> use a total pumping value of 86,500 AFY, but 108,300. Table 6-20 at 22/41. Clearly the two halves of Chapter 6 have not been checked against each other.

The "black box" quality of the SVIHM -- at least in its current state when it cannot be publicly peer reviewed by third parties -- undermines the credibility of the 180/400 GSP. A GSP based on assuming seawater intrusion radically decreases while pumping increases strains credulity. It is possible that the model is "correct" per its myriad assumptions and interconnections used to project results, if only one could review and reality test all of them. But at least as recited in draft Chapter 6, its calculation of a 7% reduction in pumping to balance the 180/400 comes across as far-fetched and unrealistic.

On the ground reality is not simply preferable, but required under SGMA. As my March 2017 letter noted early on, for a basin in overdraft like the 180/400, SGMA requires calculating the "demand reduction" or other methods to mitigate overdraft.

If overdraft is an issue (i.e., overdraft that causes seawater intrusion near the coast), then SGMA requires projecting a reduction of water use that mitigates overdraft. § 354.44(b)(2). For the Salinas Valley, the projection would entail a reduction of localized pumping (the 180/400 sub basin), as reduction of pumping in the other areas have little or no effect. . . . That option must be explored for the GSP to meet SGMA standards. Whether that simple and tailored approach is preferable to other potential ones (given political, fiscal, economic, environmental, etc. factors) is unknown, but SGMA mandates such an approach be included in the GSP.

March 2017 letter, pages 6-7. Lacking specific quantification of overdraft in the several water budgets, draft Chapter 6 may not be a sufficient basis for later chapters that address how much pumping reductions, in what areas and at what times, mitigates overdraft (a must-be-included potential "management action" in SGMA nomenclature).

DATA REFERENCES CONFUSING

Draft Chapter 6 states that the 180/400 basin accounts for 7% of the surface water extractions per eWRIMS. 7/26 The data relied upon is listed in Appendix 6-A. ??/58, 62. Data on eWRIMS has always been public and in the current era can be downloaded. 7/26 Yet, the Appendix does not contain the public information on who, where, and

when the diversions are occurring. If the omission is due to convenience or time pressures, the next iteration of the chapter should make such data available in the sprit (if not requirement) of transparency. The relevance of the data from eWRIMS is less "who," but where (the intruded area?) and when (winter rains or parched river?), which may impact the mandatory demand reduction analysis, i.e., assuming a 7% reduction, when and in what areas of the 180/400 does one curtail pumping?

CONCLUSION

As noted above, prior to any further review, the draft Chapter requires revisions to (1) track regulatory requirements and (2) harmonize the SVIHM projections with databased reality.

Very truly yours,

Thomas S. Virsik Thomas S. Virsik

Thomas S. Virsik

ATTORNEY AT LAW 2363 Mariner Square Drive, Suite 240 Alameda, CA 94501

510-508-1530 | thomasvirsiklaw@gmail.com

18 June 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA) Advisory Committee

Re: Agenda Item 4.c

Chapter 6 of 180/400 GSP

Enclosed are: (1) the June 4, 2019 letter to the Planning Committee on Chapter 6 and (2) a copy of an email to the SVBGSA of June 11, 2019, including its enclosures. This letter supplements the prior comment letter based on comments and feedback from the consultant and others at the June 6 and June 10 Planning and Board of Directors meetings, respectively. Page references are to the internal numbering of the Chapter as posted on June 17, 2019 [a different version of the Chapter was posted on June 14, 2019].

EWRIMS (SURFACE WATER DIVERSION) DATA NOT VETTED

The enclosed email explains the simple process the GSA has available to it to determine if the surface water diversions used in the water budgets are "double counting" water. To put it starkly, the publically available statements of water diversion near Speckles sent along with the email claims that the surface water diversion reported to the State is -- in the view of the filer -- actually groundwater. See response to "Additional Remarks" of the State form (enclosed with email). Presumably, the filer (an affiliate/proxy for the well-regarded local ag interest Tanimura & Antle) is also following local requirements and providing the exact same water extraction numbers to the MCWRA per local Ordinance.

Unless the GSA compares the (limited) set of eWRIMS data for the 180/400 with the MCWRA groundwater pumping reports for the nearly identical zone (the "Pressure"), the water budget numbers will erroneously assume water users in the 180/400 draw from two separate sources and hence their reduction to meet "sustainable yield" may be inaccurate. SGMA requires the "best available" data and transparency, which would not be met and the Plan may fail at DWR if the GSA continues to ignore the data and simple analytical approach¹ at its fingertips.

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¹ The MCWRA reports are tied to wells while the State reports are tied to land, but both require monthly extraction numbers, which can be directly compared. For example, a diversion for water use near Speckles that reports surface water diversions in succeeding calendar months of 115.2, 229.4, and 425.7 AF and a MCWRA report for a well near Speckles that reports groundwater extractions in succeeding calendar months of 115.2, 229.4, and 425.7 AF must be the same water. It should not be included twice in the water budget analyses.

The historical water budget reports surface water diversions on the order of nearly 10,000 AFY, which is a magnitude material to projecting a reliable sustainable yield. Chapter 6 at Tables 6-5 and 6-16, pages 10 and 18.

FUTURE SUSTAINABLE YIELD BASED ON QUESTIONABLE ASSUMPTIONS ABOUT CURRENT PROJECTS

The latter portion of draft Chapter 6 -- using the SVIHM, not reported data -- calculates the <u>future</u> sustainable yield. The assumptions include a two-thirds reduction in seawater intrusion from 10,500 to around 3,500 AFY. <u>Cf.</u> Table 6-30 with Table 6-15, pages 36 and 17. Consultant Williams explained that the delta is due (1) to the seawater intrusion projects (CSIP, SRDF) coming online during the historical period and (2) an assumed current and future "100%" level of performance of the. Again, what does the "best available" data show about the efficiency or performance of the MCWRA projects? If the data compiled by the MCWRA for its projects reflect a 50% or a 25% level of efficiency, then the model should use that metric instead of assuming the projects will magically perform far better than they have to date.

CONCLUSION

As noted in my prior letter and email and above, prior to further review, the draft Chapter requires revisions to (1) track regulatory requirements and (2) harmonize the SVIHM projections with data-based reality such as surface water diversions and project performance reality. The real danger for the Salinas Valley lies not in whether DWR accepts or approves the GSP, but in intelligently considering and selecting programs and management actions (a later chapter of the GSP) based on factious assumptions and projections about current project efficiency and wet water use/availability (whether labeled ground or surface). It is preferable to proceed with care than risk committing to projects or management actions that will either not lead to or perhaps even make the attainment of sustainability less likely.

Very truly yours,

Thomas S. Vírsík

Thomas S. Virsik

Encl.

June 4, 2019 letter to GSA Planning Committee June 11, 2019 email to GSA re eWRIMS and MCWRA

Thomas S. Virsik

ATTORNEY AT LAW

510-508-1530 | thomasvirsiklaw@gmail.com

4 June 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA) Planning Committee

Re: Agenda Item 4.b

Chapter 6 of 180/400 GSP

The below are comments and suggestions for the draft Chapter 6 of the 180/400 GSP. As presented, the draft Chapter fails to meet the minimum requirements of SGMA, lacking literally the word "overdraft" in its text. Emergency GSP Reg. 354.18(b)(5) (the historic, current, and projected water budgets must include quantification of overdraft when basin deemed in overdraft per Bulletin 118).

NOTE ON REFERENCES

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Very truly yours,

Thomas S. Virsik Thomas S. Virsik



EWRIMS and MCWRA reports

Thomas S. Virsik <thomasvirsiklaw@gmail.com>
To: Gary Petersen peterseng@svbgsa.org>

Tue, Jun 11, 2019 at 2:10 PM

Gary,

For Williams' attention per his remarks yesterday that the nature of the reporting to (1) eWRIMS and (2) the MCWRA on water extractions was dissimilar (and hence could not be readily cross-checked for double counting). I vehemently disagree.

I have attached a T&A state report (three years, including the map showing location -- all from eWRIMS). I selected it at random. It claims to be using groundwater, by the way, at "Additional Comments." [I think the word "fights" is supposed to be "rights"]

One can make a direct comparison of the monthly amounts reported in the MCWRA and State databases. If any two reports (one from eWRIMS and the other from MCWRA) arguably within the same sub-basin reflect the exact same amounts for 1/17, 2/17, 3/17 etc. then there is double counting that skews (Ms. Isakson's word) the calculation of sustainable yield and pumping reductions. One need not correlate precise APN's or well codes. I can -- for my own clients whose MCWRA reports I possess-- do such a month by month comparison (none of which relate to the 180/400). I have made this comment in public before, but perhaps it was not understood.

Given the GSA has access to the MCWRA records, it can and must do the same comparison for the limited number of 180/400 eWRIMS statements. Chapter 8 draft Table 8-9. It's simple, yet necessary to meet the "best available" standard. And it leads to a better and more reliable real-world outcome based on accurate water use / yield numbers. No part of the comparison involves determining any "water right" or claim thereto.

Thomas S. Virsik Attorney at Law

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4 attachments



S014885 T&A SUPPLEMENTAL STATEMENT OF WATER DIVERSION AND USE 2016.pdf

S014885 T&A SUPPLEMENTAL STATEMENT OF WATER DIVERSION AND USE 2017.pdf

Maps from S014885.pdf 85K

[SUMMARY OF FINAL SUBMITTED VERSION]

SUPPLEMENTAL STATEMENT OF WATER DIVERSION AND USE FOR 2015

Primary Owner: TANIMURA LAND COMPANY LLC Statement Number: S014885 Date Submitted: 05/31/2016

11 Water is used under	Riparian Claim Pre-1914 Claim	
2. Year diversion commenced	1984	

3-4. Maximi	3-4. Maximum Rate of Diversion for each Month and Amount of Water Diverted and Used			
Month	Rate of diversion	Amount directly diverted (Acre-Feet)	Amount diverted or collected to storage (Acre-Feet)	Amount beneficially used (Acre-Feet)
January		3.017	0	3.017
February		2.637	0	2.637
March		14.177	0	14.177
April		9.469	0	9.469
May		8.465	0	8.465
June		13.554	0	13.554
July		14.954	0	14.954
August		4.292	0	4.292
September		0	0	0
October		0	0	0
November		0	0	0
December		0	0	0
Total		70.565	0	70.565
Type of Diversion	Direct Diversion	Only		
Comments	ents			

Water Transfers		
8e. Water transfered No		
8f. Quantity transfered (Acre-Feet)		
8g. Dates which transfer occurred / to /		
8h. Transfer approved by		

Wa	ater Supply Contracts
	11.7

8i. Water supply contract	No
8j. Contract with	
8k. Other provider	
8l. Contract number	
8m. Source from which contract water was diverted	
8n. Point of diversion same as identified water right	
8o. Amount (Acre-Feet) authorized to divert under this contract	
8p. Amount (Acre-Feet) authorized to be diverted in 2015	
8q. Amount (Acre-Feet) projected for 2016	
8r. Exchange or settlement of prior rights	
8s. All monthly reported diversion claimed under the prior rights	
8t. Amount (Acre-Feet) of reported diversion solely under contract	

	5. Water Diversion Measurement				
a.	Measurement	Water directly diverted and/or diverted to storage was measured			
b.	Types of measuring devices used Propeller Meter				
	Additional technology used	Flow Totalizer			
C.	Description of additional technology used				
d. Who installed your measuring device(s) Representative using manufacturer's recommendations		Representative using manufacturer's recommendations			
e.	Make, model number, and last calibration date of your measuring device(s)	Water Specialties, Propeller meter			
f.	Why direct measurement using a device listed in Section 1 is "not locally cost effective"				
1.	Explanation of why use of devices and technologies listed in Section 1 are "not locally cost effective"				
	Method(s) used as an alternative to direct measurement				
g.	Explanation of method(s) used as an alternative to direct measurement				

6. Purpose of Use	
Irrigation	661.90 Acres Vegetables

7. Changes in Method of Diversion	

8. Conservation of Water		
Are you now employing a. water conservation efforts?	Yes	

	Describe any water conservation efforts you have initiated	Drip irrigation. Off wind irrigation. Weather Forecast monitoring for optimal irrigation timing. Flow meter and time clock on pump. Transplants when possible. Soil moisture sensors System maintenance and monitoring to minimize leaks and maximize distribution uniformity. Laser land leveling. Select sprinkler heads, nozzles and drip tape emitters with application rates that match the system layout, system pressure and infiltration rates.
	Amount of water conserved	Acre-Feet
b.	I have data to support the above surface water use reductions due to conservation efforts.	

		9. Water Quality and Wastewater Reclamation				
		Are you now or have you been using reclaimed water from a wastewater treatment facility, desalination facility, or water polluted by waste to a degree which unreasonably affects such water for other beneficial causes?	No			
		Amount of reduced diversion				
		Type of substitute water supply				
	b.	Amount of substitute water supply used				
		I have data to support the above surface water use reductions due to the use of a substitute water supply				

	10. Conjuctive Use of Surface Water and Groundwater				
a.	Are you now using groundwater in lieu of surface water?	No			
	Amount of groundwater used				
b.	I have data to support the above surface water use reductions due to the use of groundwater.				

11a. Additional Remarks

Tanimura & Antle ("T&A") believes that the water it diverts is percolation ground water which T&A uses pursuant to overlying groundwater fights; if, however, it is finally determined by a court of competent jurisdiction or the State Water Resources Control Board that the water T&A diverts is underflow, a subterranean stream, or any other water that is characterized as surface water subject to State Water Resources Control Board jurisdiction, T&A will be deemed to have been exercising riparian and/or pre-1914 water rights.

Attachments			
File Name Description Size			
No Attachments			

Contact Information of the Person Submitting the Form		
First Name	Ron	
Last Name	Yokota	
Relation to Water Right	Diverter of Record	
The information in the report is true to the best of his/her knowledge and belief	Yes	

[SUMMARY OF FINAL SUBMITTED VERSION]

SUPPLEMENTAL STATEMENT OF WATER DIVERSION AND USE FOR 2016

Primary Owner: TANIMURA LAND COMPANY LLC Statement Number: S014885 Date Submitted: 08/03/2018

11. Water is used under	Riparian Claim Pre-1914 Claim	
2. Year diversion commenced	1984	

3. Purpose of Use	
Irrigation	

		Irrigated Crops	
Multiple Crops		Area Irrigated (Acres)	Primary Irrigation Method
Vegetables	Yes	661.90	Sprinkler

4. Changes in Method of Diversion

Special Use Categories	
C1. Are you using any water diverted under this right for the cultivation of cannabis?	No

5-6. Maximu	5-6. Maximum Rate of Diversion for each Month and Amount of Water Diverted and Used				
Month	Rate of diversion	Amount directly diverted (Acre-Feet)	Amount diverted or collected to storage (Acre-Feet)	Amount beneficially used (Acre-Feet)	
January		0	0	0	
February		0	0	0	
March		0	0	0	
April		5.059	0	5.059	
May		11.164	0	11.164	
June		19.857	0	19.857	
July		25.109	0	25.109	
August		23.773	0	23.773	
September		19.856	0	19.856	
October		16.781	0	16.781	
November		0	0	0	

December		0	0	0
Total		121.599	0	121.599
Type of Diversion	Direct Diversion	Only		
Comments				

Water Transfers		
6d. Water transfered	No	
6e. Quantity transfered (Acre-Feet)		
6f. Dates which transfer occurred	/ to /	
6g. Transfer approved by		

Water Supply Contracts	
6h. Water supply contract	No
6i. Contract with	
6j. Other provider	
6k. Contract number	
6l. Source from which contract water was diverted	
6m. Point of diversion same as identified water right	
6n. Amount (Acre-Feet) authorized to divert under this contract	
6o. Amount (Acre-Feet) authorized to be diverted in 2016	
6p. Amount (Acre-Feet) projected for 2017	
6q. Exchange or settlement of prior rights	
6r. All monthly reported diversion claimed under the prior rights	
6s. Amount (Acre-Feet) of reported diversion solely under contract	

7. Water Diversion Measurement	
a. Required to measure as of the date this report is submitted	Yes
b. Is diversion measured?	Yes
c. An alternative compliance plan was submitted to the division of water rights on	
d. A request for additional time was submitted to the division of water rights on	

Measurement ID number	M010336
This Device/Method was used to measure water during the current reporting period	
M1. Briefly describe the measurement device or method	propellor meter
M2. Nickname	
M3. Type of device / method	Flow meter (propeller)
M4. Device make	McCrometer
M5. Serial number	932573-8

M6. Model number	
M7. Approximate date of installation	04/13/2016
M8. Additional info	
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	11/01/2015
M10. Estimated accuracy of measurement	5%
M11. Description of calibration method	Calibrated to manufaturers specifications before installation manufacturer representative
M12. Describe the maintenance schedule for the device/method	
Information for the person who last calibrated the	device or designed the measurement method
M13. Name	
M14. Phone number	
M15. Email	
M16. Qualifications of the individual	California-licensed contractor authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps
M17. License number and type for the qualified individual above and/or any other relevant explanation	
M18. Type of data recorder device / method	
M19. Data recorder device make	
M20. Data recorder serial number	
M21. Data recorder model number	
M22. Data recorder units of measurement	
M23. Frequency of data recording	
M24. Additional data recorder info	
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	
M28. Describe any documents related to this measurement device or method that are attached to this water use report	

8. Conservation of Water

	Are you now employing water conservation efforts?	Yes
а	Describe any water conservation efforts you have initiated	Drip irrigation. Off wind irrigation. Weather Forecast monitoring for optimal irrigation timing. Flow meter and time clock on pump. Transplants when possible. Soil moisture sensors System maintenance and monitoring to minimize leaks and maximize distribution uniformity. Laser land leveling. Select sprinkler heads, nozzles and drip tape emitters with application rates that match the system layout, system pressure and infiltration rates
	Amount of water conserved	
b	I have data to support the above surface water use reductions due to conservation efforts.	

	9. Water Quality and Wastewater Reclamation			
	Are you now or have you been using reclaimed water from a wastewater treatment facility, a. desalination facility, or water polluted by waste to a degree which unreasonably affects such water for other beneficial causes?	No		
t	Amount of reduced diversion			
	Type of substitute water supply			
	Amount of substitute water supply used			
	I have data to support the above surface water use reductions due to the use of a substitute water supply			

	10. Conjuctive Use of Surface Water and Groundwater		
а	. Are you now using groundwater in lieu of surface water?	No	
Ĺ	Amount of groundwater used		
þ	I have data to support the above surface water use reductions due to the use of groundwater.		

Additional Remarks

Tanimura & Antle ("T&A") believes that the water it diverts is percolation ground water which T&A uses pursuant to overlying groundwater fights; if, however, it is finally determined by a court of competent jurisdiction or the State Water Resources Control Board that the water T&A diverts is underflow, a subterranean stream, or any other water that is characterized as surface water subject to State Water Resources Control Board jurisdiction, T&A will be deemed to have been exercising riparian and/or pre-1914 water rights.

Attachments		
File Name	Description	Size
No Attachments		

Contact Information of the Person Submitting the Form	
First Name	Anthony
Last Name	Duttle

Relation to Water Right	Diverter of Record
The information in the report is true to the best of his/her knowledge and belief	Yes

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3. Purpose of Use		
Irrigation		

Irrigated Crops				
	Multiple Crops	Area Irrigated (Acres)	Primary Irrigation Method	
Vegetables	Yes	661.90	Sprinkler	

4. Changes in Method of Diversion

Special Use Categories	
C1. Are you using any water diverted under this right for the cultivation of cannabis?	No

5-6. Maximum Rate of Diversion for each Month and Amount of Water Diverted and Used				
Month	Rate of diversion	Amount directly diverted (Acre-Feet)	Amount diverted or collected to storage (Acre-Feet)	Amount beneficially used (Acre-Feet)
January		0	0	0
February		0.476	0	0.476
March		6.191	0	6.191
April		8.05	0	8.05
May		27.526	0	27.526
June		27.296	0	27.296
July		24.129	0	24.129
August		0.762	0	0.762
September		3.002	0	3.002
October		41.776	0	41.776
November		0.003	0	0.003

December		1.233	0	1.233	
Total		140.444	0	140.444	
Type of Diversion	Direct Diversion Only				
Comments					

Water Transfers	
6d. Water transfered	No
6e. Quantity transfered (Acre-Feet)	
6f. Dates which transfer occurred	/ to /
6g. Transfer approved by	

Water Supply Contracts	
6h. Water supply contract	No
6i. Contract with	
6j. Other provider	
6k. Contract number	
6l. Source from which contract water was diverted	
6m. Point of diversion same as identified water right	
6n. Amount (Acre-Feet) authorized to divert under this contract	
6o. Amount (Acre-Feet) authorized to be diverted in 2017	
6p. Amount (Acre-Feet) projected for 2018	
6q. Exchange or settlement of prior rights	
6r. All monthly reported diversion claimed under the prior rights	
6s. Amount (Acre-Feet) of reported diversion solely under contract	

7. Water Diversion Measurement		
a. Required to measure as of the date this report is submitted	Yes	
b. Is diversion measured?	Yes	
c. An alternative compliance plan was submitted to the division of water rights on		
d. A request for additional time was submitted to the division of water rights on		

Measurement ID number	M010336
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	propellor meter
M2. Nickname	
M3. Type of device / method	Flow meter (propeller)
M4. Device make	McCrometer
M5. Serial number	932573-8

M6. Model number	
M7. Approximate date of installation	04/13/2016
M8. Additional info	
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	11/01/2015
M10. Estimated accuracy of measurement	5%
M11. Description of calibration method	Calibrated to manufaturers specifications before installation manufacturer representative
M12. Describe the maintenance schedule for the device/method	
Information for the person who last calibrated the	device or designed the measurement method
M13. Name	
M14. Phone number	
M15. Email	
M16. Qualifications of the individual	California-licensed contractor authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps
M17. License number and type for the qualified individual above and/or any other relevant explanation	
M18. Type of data recorder device / method	
M19. Data recorder device make	
M20. Data recorder serial number	
M21. Data recorder model number	
M22. Data recorder units of measurement	
M23. Frequency of data recording	
M24. Additional data recorder info	
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	
M28. Describe any documents related to this measurement device or method that are attached to this water use report	

8. Conservation of Water

a.	Are you now employing water conservation efforts?	Yes
	Describe any water conservation efforts you have initiated	Drip irrigation. Off wind irrigation. Weather Forecast monitoring for optimal irrigation timing. Flow meter and time clock on pump. Transplants when possible. Soil moisture sensors System maintenance and monitoring to minimize leaks and maximize distribution uniformity. Laser land leveling. Select sprinkler heads, nozzles and drip tape emitters with application rates that match the system layout, system pressure and infiltration rates.
	Amount of water conserved	
b	I have data to support the above surface water use reductions due to conservation efforts.	

	9. Water Quality and Wastewater Reclamation				
a.	Are you now or have you been using reclaimed water from a wastewater treatment facility, desalination facility, or water polluted by waste to a degree which unreasonably affects such water for other beneficial causes?	No			
b.	Amount of reduced diversion				
	Type of substitute water supply				
	Amount of substitute water supply used				
	I have data to support the above surface water use reductions due to the use of a substitute water supply				

	10. Conjuctive Use of Surface Water and Groundwater				
a	a. Are you now using groundwater in lieu of surface water?				
	Amount of groundwater used				
t	I have data to support the above surface water use reductions due to the use of groundwater.				

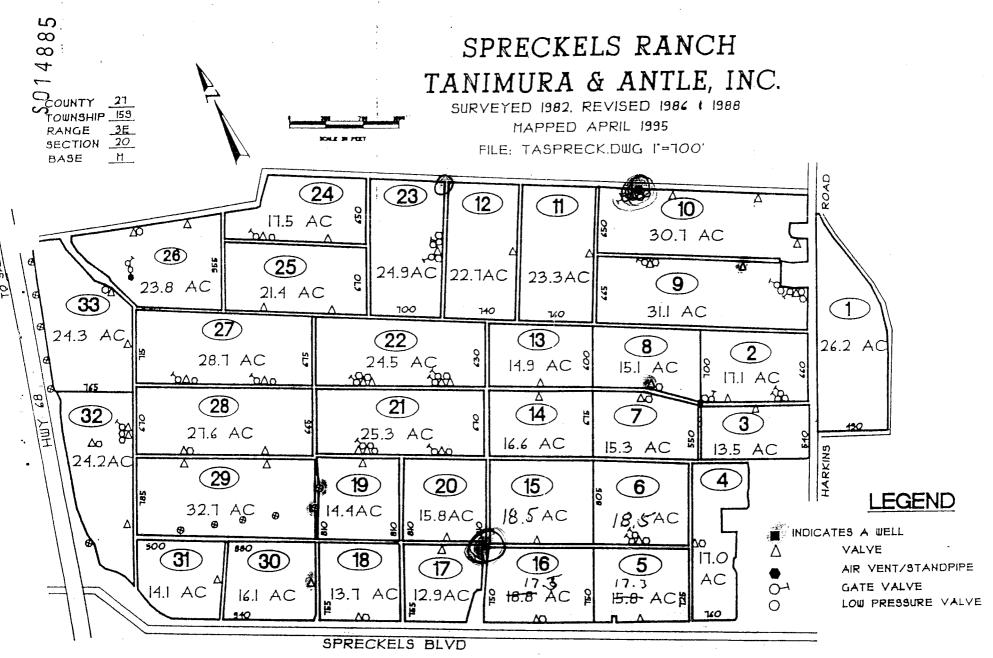
Additional Remarks

Tanimura & Antle ("T&A") believes that the water it diverts is percolation ground water which T&A uses pursuant to overlying groundwater fights; if, however, it is finally determined by a court of competent jurisdiction or the State Water Resources Control Board that the water T&A diverts is underflow, a subterranean stream, or any other water that is characterized as surface water subject to State Water Resources Control Board jurisdiction, T&A will be deemed to have been exercising riparian and/or pre-1914 water rights.

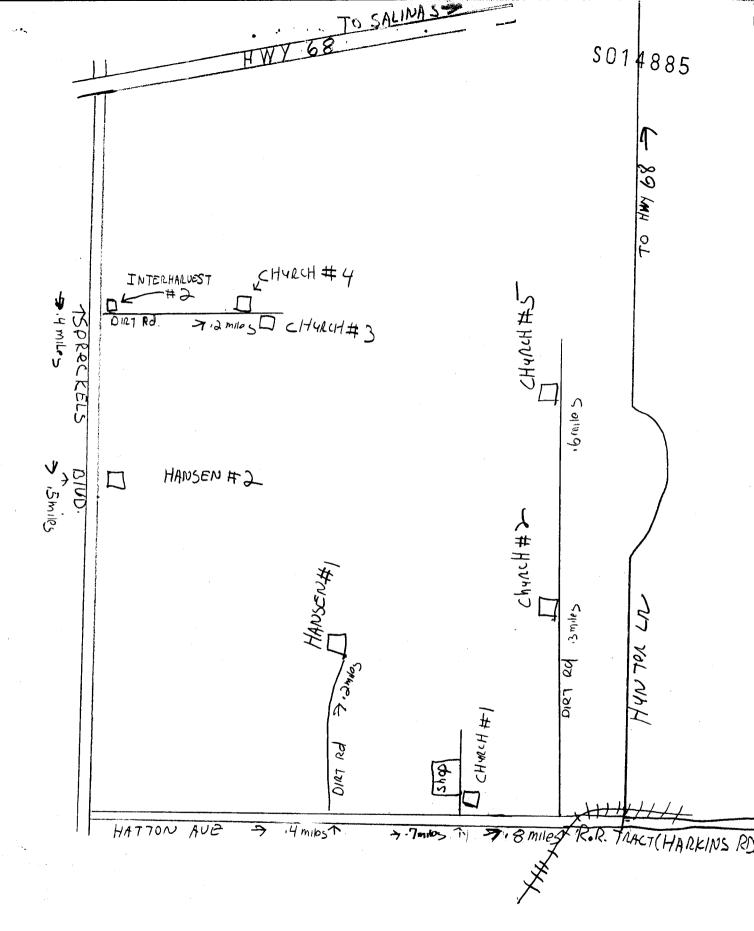
Attachments			
File Name	Description	Size	
No Attachments			

Contact Information of the Person Submitting the Form		
First Name	Anthony	
Last Name	Duttle	

Relation to Water Right	Diverter of Record
The information in the report is true to the best of his/her knowledge and belief	Yes



677.2± ACRES NET CROP





31 October 2019

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA)

Re: 180/400 Draft GSP (comments on errata)

This comment letter is limited to proofreading level issues. The draft reviewed carries an October 1, 2019 date and was released on or about October 21, 2019.

- Volume 1, Chapter 2 at 2.3.2 on page 2-8. The second sentence appears unfinished, ending with a clause without any verb.
- Volume 2, Chapter 6 at 6-9 through 6-11, pages i through xii. This portion of Chapter six carries a lower case Roman pagination whereas all other pages of Chapter 6 (and the other chapters) use a hyphenated Arabic system, i.e., 6-1, 9-23. The unexplained and anomalous switch to a different pagination system is confusing.
- Volume 2, Chapter 8 at 8.9.2.1, page 8-46. There is a portion of a sentence in blue text, center justified, in a font and size different than the rest of the text. It appears the fragment continues to the next page in text, but the size, placement, and color of the fragment do not match the text that follows.
- Volume 2, Chapter 8 at 8.9.2.2 and 8.9.2.3, pages 8-48 and 8-49. On both pages, there is a portion of a sentence in blue text, center justified, in a font and size different than the rest of the text. It appears the fragments continue to the next page in text, but the size, placement, and color of the fragment do not match the text that follows.
- Volume 3, Chapter 9 at 9.3.2, page 9-10. The final sentence has a single closing parenthesis.

A comment letter addressing substantive issues, errors, omissions, and suggestions will be sent separately.

Very truly yours,

Thomas S. Virsik
Thomas S. Virsik



8 January 2020

To: Salinas Valley Basin Groundwater Sustainability Agency (GSA)

Re: January 9, 2020 meeting

Agenda Item 7.a Resolution approving the GSP for 180/400

On behalf of my clients, none of whom have direct interests in the 180/400 subbasin but look with great interest on the quality of the process, I offer two comments, one of which is for emphasis and the other appears to identify a flaw that may result in rejection of the GSP.

The 7% pumping reduction number is not a prediction of pumping reduction First, the emphasis. Buried in the responses to the written comments is the following articulate explanation at W-142, page 1076 of the agenda packet posted on 3 January 2020 (references are to that numbering unless otherwise noted):

Text has been added to explain that the sustainable yield is a long term management number, not the amount of pumping needed to stop current seawater intrusion. The sustainable yield assumes seawater intrusion has been halted. In other words, the future sustainable yield is the sustainable yield once actions have been taken to reach measureable objectives and avoid undesirable results. Prior to the future sustainable yield there will need to be actions taken to come to sustainability.

This explanation is far more precise and clear than the several references in the GSP text to the far from intuitive definition of "sustainable yield." See e.g., 6.10.5 at 272; 8.7.2 at 328. Unfortunately, the text also appears to falsely state that in order to reach sustainability, only a 7% (approximate) pumping reduction is needed.

This table [6-31] estimates that pumping reductions of between 7.0 % and 7.1 % will be needed to reduce Subbasin pumping to the Sustainable Yield.

Page 272. The sentence is misleading, because the 7% reduction will not <u>reduce</u> pumping to the sustainable yield, which target instead require other magnitudes of reductions, projects, and actions per the explanation above at W-142. To follow the GSA text at note W-142, the above sentence needs to add: "... only after much higher pumping reductions and/or other projects and actions have resulted in actually halting all seawater intrusion."

It is important that the Board, consultants, and GSA staff disabuse the public from a facile assumption that the 7% reduction number reflects the foreseeable level of pumping reductions in the 180/400. That low number is the projection some decades down the road <u>only if and when</u> the much more severe and expensive efforts of projects, actions, and pumping restrictions in the 180/400 finally and firmly halt seawater intrusion.

Historical water budget now fatally flawed as opaque and bereft of justification With this comment is a sheet created from a direct comparison of parts of Appendix 6A from December 2019 and the current one of January 2020. The December 2019 Appendix 6A reported that during the drought years when the River showed little to no water on its surface and the gage at the Bay reflected zero outflow¹, the percolation into the 180/400 was either low or nonexistent. Shockingly, 2020 version of that same table in Appendix 6A finds that in those drought years the percolation is now characterized as quite robust. That one wholesale change in how the River percolates in the 180/400 during severe drought years affects the input and numbers in multiple other tables and analyses, resulting in a much rosier set of historical water budget tables / numbers / conclusions throughout the GSP. See and compare, the following "then (12/19) and now (1/20)" versions of Tables 6-17, 6-18, Figure 6-4 (bar graph), Figure 6-5 (bar graph), Tables 6-19, 6-20, 6-22, and 6-23 (and the parallel Executive Summary versions).²

Current Appendix 6A carries no notes or other explanation of why/how the percolation numbers during drought years rose by great amounts. Recall that the GSP was on the cusp of adoption in December, which would have included the version of Appendix 6A that reflected that zero outflow to the Bay meant little to no percolation from the dray River in the 180/400. What changed less than thirty days later?

Given the twin pillars of the best available science and data, which of the two resulted in the changes? What historic data changed between December 9, 2019 and January 3, 2020 (the release dates of the two versions of Appendix 6A) to so radically result in far greater percolation numbers? If it was not "new" historic data, what new tool was developed in the fewer than 30 days between versions?

The Board is challenged to demand an explanation -- to honor transparency in this concrete situation. If the Board cavalierly accepts a water budget that changed to a far rosier hue in less than 30 days, the DWR will be well justified to

¹ It's not explicit, but one assume the outflow amounts are taken from legacy MCWRA data based on actual gage readings.

It appears that the changes to the percolation amounts may have been triggered by the MCWRA's keen observation that when math was applied to the 2019 water budget numbers (derived from the data reported in the 2019 Appendix 6A), a 37% pumping reduction was the result. W-246.

reject the GSP for failure to meet SGMA standards for the historical water budget, one of the explicit regulatory requirements for a GSP. Involving the State entities may become an advantage in the long-term perspective, because probation may bring with it the expertise and assistance of the DWR and SWRCB.

Final comment:

The purpose of my comments, and one assumes most if not all other comments, is to improve the GSP to the point that it is acceptable to the DWR, fair, reliable, and useful. The GSA has made many, many improvements and correction to it based on the comments. Nevertheless, when a critical part of the historic water budget radically changes at the very last moment with no warning, justification, or hint at explanation, the GSA must stop and demand full daylight be brought on the changes.

Do not accept the GSP -- at least not today, and at least not until both the Board and the public can be assured that the water budget numbers are not goal oriented, but are based exclusively on the best data and science. In the alternative if the Board is too fearful of a missed deadline, it can approve the GSP contingent on its commitment to present to the public and for adoption within the expected public comment period (i.e., sixty days or less) an amendment to Appendix 6A and the tables, figures, and calculations that arise therefrom based on transparent data and science. SGMA Reg. § 355.10 (re amending a GSP after submission).

Very truly yours,

Thomas S. Virsik
Thomas S. Virsik

Salinas River Direct Diversions (AFryr.)	Salinas River Outflow to Monterey Bay (AF/yr.)	Other Outflows to Monterey Bay (AF/yr.)	Net Percolation of Streamflow to Groundwater (AF/yr.)	Total Outflow (AF/yr.)
8,000	817,500	10,000	90,000	925,500
8,000	274,400	10,000	80,000	372,400
000,8	622,400	10,000	90,000	730,500
8,000	1,251,400	10,000	90,000	1,359,400
8,000	68,500	10,000	68,500	155,100
8,000	209,700	10,000	80,000	307,700
8,000	119,900	10,000	80,000	217,900
8,000	0	10,000	D	18,000
8,000	6,000	7,800	6,000	27,800
8,000	3,300	9,100	3,300	23,700
8,000	477,500	16,400	90.000	591,900
8,000	338,000	14,900	90,000	450,900
8,000	0	7,100	D	15,100
8,000	57,600	8,200	57,600	131,400
8,000	0	8,600	0	16,600
8,000	181,500	13,400	80,000	282,900
6,500	384,500	14,300	90,000	495,300
7,200	0	7,300	0	14,500
9,200	4,500	8,000	4,500	26,100
8,900	0	5,000	0	13,900
8,300	0	8,700	0	17,000
7,600	0	14,400	0	22,000
7,600	310,300	30,800	90,000	438,900
8,000	240,800	10,800	50,000	308,800
7,500	103,408	18,000	30,000	159,300

SURFACE WATER OUTFLOW				
Salinas River Direct Diversions (AF/yr.)	Salinas River Outflow to Monterey Bay (AF/yr.)	Other Outflows to Monterey Bay (AF/yr.)	Net Percolation of Streamflow to Groundwater (AF/yr.)	Total Outflow (AFIyr.)
8,000	817,500	10,000	90,000	925,500
8,000	274,400	10,000	90,000	382,400
8,000	622,400	10,000	90,000	730,500
8,000	1,251,400	10,000	90,000	1,359,40
8,000	68,500	10,000	80,000	166,500
8,000	209,700	10,000	80,000	307,700
8,000	119,900	10,000	80,000	217,900
8,000	0	10,000	80,000	98,000
8,000	6,000	7,800	80,000	101,800
8,000	3,300	9,100	76,400	96,800
8,000	477,500	16,400	90,000	591,900
8,000	338,000	14,900	90,000	450,900
8,000	0	7,100	62,000	77,100
8,000	57,600	8,200	80,000	153,800
8,000	0	8,600	52,100	68,700
8,000	181,500	13,400	80,000	282,900
6,500	384,500	14,300	90,000	495,300
7,200	0	7,300	70,500	85,100
9,200	4,500	8,000	79,600	101,200
8,900	0	5,000	5,000	18,900
8,300	O	8,700	3,300	20,300
7,600	0	14,400	10,000	32,000
7,800	310,300	30,800	90,000	438,900
8,000	240,800	10,000	76,800	335,60
7,900	103,400	18,000	34,400	163,700



January 8, 2020

By Hand Delivery and E-Mail

Board of Directors
Salinas Valley Basin Groundwater
Sustainability Agency
1411 Schilling Place
Salinas, California 93901
board@svbgsa.org
camela@svbgsa.org

Re: Finalizing Groundwater Sustainability Plan and Adopting Cooperation Agreement with the County of Monterey-SVBGSA Board of Directors January 9, 2020 Meeting, Agenda Items # 7a and # 7b

Dear Salinas Valley Basin Groundwater Sustainability Agency Board of Directors:

On behalf of the City of Marina ("City" or "Marina") and the Marina Groundwater Sustainability Agency ("MGSA"), we submit these comments opposing the adoption of two proposed resolutions on the Agenda for the Salinas Valley Basin Groundwater Sustainability Agency ("SVBGSA") Board of Directors' January 9, 2020 meeting: (1) the resolution adopting SVBGSA's final groundwater sustainability plan ("GSP") for the 180/400 Foot Aquifer Subbasin ("Subbasin"); and (2) the resolution adopting a cooperation agreement between SVBGSA and the County of Monterey ("County") for management of an approximately 400-acre parcel within the Subbasin.

INTRODUCTION

The City and MGSA previously opposed both resolutions when the SVBGSA Board of Directors first considered them on December 12, 2019. A copy of the City/MGSA letter in opposition to those resolutions is enclosed as Exhibit 1 and incorporated herein by reference. After considering the resolutions, the SVBGSA Board of Directors continued them to its January 9, 2020 meeting. However, in the intervening time, SVBGSA has failed to address the concerns of the City and MGSA regarding both resolutions. As a result, the City and MGSA continue to oppose the resolutions for the reasons set forth in our December 12, 2019 opposition letter and for the further reasons set forth herein.

Board of Directors January 8, 2020 Page 2



The City and MGSA oppose both of SVBGSA's proposed resolutions as impermissible interference with the City and MGSA's sustainable management of groundwater in MGSA's jurisdictional area ("MGSA Area") and MGSA's performance of its obligations as a groundwater sustainability agency ("GSA") under the Sustainable Groundwater Management Act ("SGMA"). On December 11, 2019, the Monterey County Board of Supervisors adopted Resolution 19-171, which attempts to utilize Water Code Section 10724 to become the "exclusive" GSA for the MGSA Area. County staff then filed a GSA notification with the California Department of Water Resources ("DWR") to become the GSA for the MGSA Area, and on December 18, 2019, DWR posted the County's notification and designated the County as the "exclusive" GSA for the MGSA Area.

On December 30, 2019, the City and MGSA filed a Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief in Monterey County Superior Court against Monterey County and DWR, with SVBGSA and its Board of Directors named as Real Parties in Interest (Case No. 19CV005270). This Petition was served on the SVBGSA parties on January 2, 2020. The City and MGSA allege that SVBGSA is participating in an unlawful scheme to conduct a hostile takeover of MGSA's jurisdiction for the purpose of divesting MGSA of its SGMA jurisdiction and substituting SVBGSA management and the SVBGSA GSP for the MGSA Area. Since adoption of this proposed cooperation agreement with the County would represent a further step to consummate this unlawful scheme, the City and MGSA strongly advise SVBGSA not to take this action.

Together, SVBGSA's two proposed resolutions purport to deny the City and MGSA the opportunity to contribute to the sustainable management of the portions of the Subbasin within the City's jurisdiction either as a local entity or as a SGMA GSA. First, SVBGSA's proposed resolution to adopt its Final GSP without fully considering or incorporating the City and MGSA's public comments would deny the City its right to contribute to the management of the entire 180/400 Foot Aquifer Subbasin as a local government entity under Water Code Section 10728.4. That section mandates that a GSA "shall review and consider comments from any city or county" within its GSP's area. Cal. Water Code § 10728.4; see also Cal. Code Regs. tit. 23, § 354.10(c) (requiring a GSP to include the public comments on the GSP "and a summary of any responses by the [GSA]"). SVBGSA's decision to almost completely ignore the City and MGSA's comments not only leaves critical gaps in SVBGSA's GSP, but it also leaves MGSA's role as a GSA with its own GSP as the only way for the City and MGSA to shape groundwater management in the MGSA Area.

Second, SVBGSA's resolution proposing to adopt a cooperation agreement with the County further attempts to quash the City and MGSA's right to contribute to groundwater management in the Subbasin through MGSA's GSP. This cooperation agreement would effectively install SVBGSA as the exclusive GSA for the MGSA Area by assigning SVBGSA the responsibility of complying with SGMA, including reviewing, adopting, and implementing the GSP for the Marina Area. As a result, the cooperation agreement improperly attempts to cement the County's efforts to strip the City and MGSA of their groundwater management authority under SGMA.

Board of Directors January 8, 2020 Page 3



Accordingly, SVBGSA's proposed resolutions would collectively deprive the City and MGSA of their ability to ensure sustainable management of the Subbasin and protect the beneficial groundwater uses and users in the City's coastal areas. Therefore, the City and MGSA strongly urge SVBGSA to (1) immediately revise its Final GSP to incorporate the comments of the City and MGSA, and (2) decline to adopt the cooperation agreement.

I. SVBGSA's Failure To Address The City And MGSA's Public Comments In Its Final GSP Results In A Deficient Final GSP.

The City and MGSA oppose SVBGSA's resolution to adopt its Final GSP. SVBGSA's staff report for the January 9, 2020 Board of Directors' meeting maintains that SVBGSA will not respond to all of the timely comments it received on its Draft GSP before its November 25, 2019¹ comment deadline. Unfortunately, SVBGSA has only considered and responded to a fraction of the City and MGSA's public comments.² Instead, SVBGSA's proposed resolution still seeks to approve its Final GSP without fully considering these comments or addressing them through changes to its GSP. This approach violates SGMA, essentially nullifies the important public comment process, and impairs the due process rights of all commenters whose comments SVBGSA did not choose to consider. Accordingly, SVBGSA's Board cannot legally approve the Final GSP without first completing the comment review, response, and GSP revision processes.

SVBGSA's Final GSP fails to address the critical gaps in SVBGSA's GSP previously identified by the City and MGSA in their public comments on the Draft GSP.³ In particular, SVBGSA's GSP still does not correctly characterize, monitor, or manage the groundwater resources in the coastal region south of the Salinas River or recognize the critical municipal,

¹ See SVBGSA, Public Notice Release of Groundwater Sustainability Plan 180-400 Foot Aquifer Subbasin, available at https://svbgsa.org/groundwater-sustainability-plan/180-400-ft-aquifer/.

² SVBGSA's comment response matrix indicates that SVBGSA has considered and responded to only seven of the City and MGSA's public comments. In addition to a cover letter and four attachments, the City and MGSA submitted a table outlining 39 separate comments on SVBGSA's Draft GSP. SVBGSA's Staff Report notes that it will not consider or respond to "[c]omments that are not individually addressed in this matrix." SVBGSA Board Agenda, *Staff Report on Agenda Item 7a* at p. 15. Instead, those comments "will be addressed as the GSP is implemented and refined." *Id.* This means SVBGSA has not considered or addressed the vast majority of the City and MGSA's public comments. A copy of SVBGSA's comment response matrix is available at https://svbgsa.org/wp-content/uploads/2020/01/Master_Review_Comments 20191231- CF.pdf.

³ The City and MGSA submitted comments on the SVBGSA's Draft GSP including a cover letter, four attachments, and a comment table on November 25, 2019. Those comments are available at https://svbgsa.org/wp-content/uploads/2019/12/WholeGSP_Comment_letters compiled reduced.pdf and are incorporated by reference herein.

Board of Directors January 8, 2020 Page 4



domestic, groundwater-dependent ecosystems ("GDEs"), and other beneficial uses or users in that area. SVBGSA also fails to utilize the newest and best available science for its GSP, including state-of-the-art airborne electromagnetic investigations performed by Stanford University researchers and others that have generated three-dimensional groundwater maps and cross-sections of the Subbasin. These studies reveal critical characteristics and complexities in the Subbasin that SVBGSA must consider to manage and protect groundwater resources in the Subbasin.

SVBGSA's failure to consider these studies also contributes to the Final GSP's inadequate protections against ongoing and worsening seawater intrusion. This failure puts the City's water supply and coastal beneficial groundwater users at risk. Furthermore, and without limitation, SVBGSA's Final GSP also fails to (1) designate, protect, and manage the Dune Sand Aquifer as a principal aquifer; (2) meaningfully recognize, address, monitor, and manage GDEs as a beneficial groundwater use; (3) consider state and federal protections for habitats and species in and near the MGSA Area; and (4) include an adequate monitoring network in the coastal portion of the Subbasin. The Final GSP is thus deficient in its current form.

Adopting SVBGSA's GSP without addressing the deficiencies delineated in the City and MGSA's comments will result in a GSP that lacks the necessary protections for the Subbasin's coastal areas as well as local beneficial uses and users of groundwater. SVBGSA's failure to address the crucial factual, technical, and scientific issues that MGSA and the City raised in their comments undermines the integrity and validity of SVBGSA's Final GSP. Further, SVBGSA's failure to revise its GSP in response to the City and MGSA's valid comments denies the City of its right to contribute to groundwater management in its jurisdiction in violation of SGMA. It also leaves the City and MGSA with only a future undefined "implemented and refined" GSP process to voice and address local concerns regarding groundwater management in the MGSA Area.⁴

II. The Proposed Cooperation Agreement Unlawfully Attempts To Eliminate The City And MGSA's Groundwater Management Authority.

The City and MGSA oppose SVBGSA's proposed resolution to approve a cooperation agreement between SVBGSA and the County of Monterey GSA. SVBGSA failed to negotiate in good faith with MGSA over the terms of a coordination agreement for four months and instead requested that the County take over MGSA's jurisdictional area. The proposed cooperation agreement would further the County's hostile takeover of the MGSA Area by attempting to

⁴ In correspondence with MGSA, SVBGSA confirmed that it would only agree to meet with MGSA to coordinate on a GSP if MGSA "agrees to give up its GSA." Relinquishing its GSA status would leave the City with only the public comment process to influence groundwater management in its jurisdiction. Therefore, SVBGSA's improper refusal to fully consider MGSA's comments and revise its GSP to address the gaps identified by MGSA further illustrates why SVBGSA's negotiation demand that MGSA give up its valid GSA status was a complete non-starter.



legitimize the illegal efforts of the County and SVBGSA to deprive MGSA of any groundwater management authority and circumvent SGMA's coordination requirements.

The cooperation agreement seeks to bar the City and MGSA from exercising any groundwater management authority in the MGSA Area. In the proposed agreement, the County purports to delegate complete management authority for the MGSA Area to SVBGSA, including the responsibility of "comply[ing] with SGMA at the CEMEX Site," as well as "taking actions to review, adopt and implement the GSP." SVBGSA and Monterey County Cooperation Agreement at p. 4. The agreement further provides that the "County GSA authorizes SVBGSA to exercise any and all legal authorities in compliance with applicable law for the CEMEX Site." *Id.*

These provisions effectively eliminate any voice that the City or MGSA has in the management of the MGSA Area. They also demonstrate that the County has no interest in acting as the GSA for the MGSA Area. The County instead only seeks to become a GSA to remove MGSA, so its agency partner SVBGSA, can manage the site. Indeed, through the cooperation agreement, the County and SVBGSA aim to do what SVBGSA cannot do under the SGMA on its own—adopt SVBGSA's GSP for the MGSA area without coordinating with MGSA and its GSP. Accordingly, the proposed cooperation agreement functions as a key part of the unlawful scheme to circumvent the local voices and local concerns contained in MGSA's GSP.

CONCLUSION

For all of these reasons, the City and MGSA oppose SVBGSA's proposed resolutions. Together, SVBGSA's resolutions threaten to silence MGSA both as a local agency participating in the public comment process and as a validly formed GSA. The City and MGSA therefore strongly urge SVBGSA to (1) immediately revise its Final GSP to incorporate the comments of the City and MGSA, and (2) decline to adopt the cooperation agreement.

Sincerely,

Paul P. "Skip" Spaulding, III

PPS:jla Enclosures

cc: Layne Long, Marina City Manager

(via e-mail llong@cityofmarina.org)

Marina City Council (via e-mail)

Robert Wellington, Marina City Attorney

(via e-mail rob@wellingtonlaw.com)

Deborah Mall, Marina Assistant City Attorney

(via e-mail deb@wellingtonlaw.com)

Robert Rathie, Marina City Attorney

Board of Directors January 8, 2020 Page 6



(via e-mail <u>attys@wellingtonlaw.com</u>)
Keith Van Der Maaten, Marina Coast Water District GSA
(via e-mail <u>kvandermaaten@mcwd.org</u>)

EXHIBIT 1



December 12, 2019

By Hand Delivery

Board of Directors
Salinas Valley Basin Groundwater
Sustainability Agency
1411 Schilling Place
Salinas, California 93901

Re: Finalizing Groundwater Sustainability Plan and Adopting Cooperation Agreement with the County of Monterey–SVBGSA Board of Directors December 12, 2019 Meeting, Agenda Items # 7.a and # 7.b

Dear Salinas Valley Basin Groundwater Sustainability Agency Board of Directors:

On behalf of the City of Marina ("City" or "Marina") and the Marina Groundwater Sustainability Agency ("MGSA"), we submit these comments opposing the adoption of two proposed resolutions on the Salinas Valley Basin Groundwater Sustainability Agency ("SVBGSA") Board of Directors' December 12, 2019 Agenda: (1) the resolution adopting SVBGSA's final groundwater sustainability plan ("GSP") for the 180/400 Foot Aquifer Subbasin ("Subbasin"); and (2) the resolution adopting a cooperation agreement between SVBGSA and the County of Monterey ("County") for management of an approximately 400-acre parcel within the Subbasin.

INTRODUCTION

The City and MGSA oppose both resolutions before the SVBGSA Board of Directors' for different reasons. First, the City recognizes the hard work that has gone into the preparation of SVBGSA's GSP. As required by the Sustainable Groundwater Management Act ("SGMA"), SVBGSA circulated its Draft GSP for a 45-day public comment period, and we understand that SVBGSA received a considerable volume of comments. However, according to the Staff Report, SVBGSA has no intention to respond to the timely comments it received after mid-November or to make any changes to its Draft GSP based on those comments. Rather, SVBGSA's proposed resolution seeks to approve its Final GSP without taking these comments into account.

SVBGSA's approach violates SGMA and essentially nullifies the important public comment process. The City and MGSA submitted comments on November 25, 2019 (within the public comment period), but SVBGSA is disregarding these comments and making no changes

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to its GSP based on them. This procedural misstep by SVBGSA fundamentally impairs the due process rights of all commenters who filed comments after mid-November. It also undermines the integrity and validity of SVBGSA's Final GSP because it does not address the crucial factual, technical, and scientific issues that MGSA and the City raised in their comments. Accordingly, SVBGSA's Board cannot legally approve the Final GSP without first completing the comment review, response, and GSP revision processes. The Final GSP is thus deficient in its current form.

Second, the City and MGSA oppose the resolution approving a cooperation agreement between SVBGSA and the County of Monterey. SVBGSA failed to negotiate in good faith with MGSA over the terms of a coordination agreement for four months and instead requested that the County take over MGSA's jurisdictional area. This is no less than a "hostile takeover" of MGSA's entire groundwater area. Pursuant to this plan, on December 11, 2019, the County adopted a resolution to utilize Water Code Section 10724 to pursue becoming the groundwater sustainability agency ("GSA") for the approximately 400-acre parcel within the Subbasin where MGSA and SVBGSA have filed overlapping GSA notifications.

However, the County cannot lawfully invoke Section 10724, in part because as a member, majority funder, and architect of SVBGSA and its GSP, the County "is creating or contributing to the [GSA] overlap" it allegedly seeks to solve by becoming a GSA. State Water Resources Control Board, *Frequently Asked Questions on GSAs*, at 3 (Nov. 22, 2017). The County thus has no legal basis for disregarding MGSA, a properly-formed GSA with jurisdiction over the MGSA area. Furthermore, the County's efforts to install SVBGSA's GSP and to delegate management of the overlapping area expose the County's real motive. Together, SVBGSA and the County seek to contravene SGMA's GSA coordination requirements and effectively designate SVBGSA as the exclusive GSA for the Subbasin through a prohibited "backdoor" maneuver. These actions violate SGMA and attempt to unlawfully block the City of Marina and MGSA from exercising their rights under SGMA.¹

Both of these resolutions would undermine the efforts of the City and MGSA to contribute to the sustainable management of the Subbasin and protect the critical coastal areas in the City's jurisdiction. Accordingly, the City strongly urges SVBGSA not to adopt either proposed resolution and instead begin coordinating with MGSA to develop a GSP or set of GSPs to sustainably manage the Subbasin.

I. SVBGSA's Proposed Resolution To Finalize Its GSP Unlawfully Disregards Timely Filed Public Comments And Has Resulted In A Deficient Final GSP.

The City and MGSA oppose SVBGSA's proposed resolution to adopt its Final GSP after only considering and addressing a portion of the public comments on it. The deadline to submit

¹ The City and MGSA provided a detailed description of these issues in their December 10, 2019 joint opposition letter to the County's GSA Resolution, which is enclosed herewith as Attachment 1 and incorporated herein by reference.

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public comments on SVBGSA's GSP was November 25, 2019.² Now, after that deadline has passed, SVBGSA seeks to impose an earlier comment deadline by failing to consider and address public comments received "[b]etween mid-November and prior to the closing comment date of November 25, 2019." SVBGSA Board Agenda, *Staff Report on Agenda Item 7a* at 63.

SVBGSA openly admits that "not all" public comments "will be initially addressed individually in the comment matrix." *Id.* SVBGSA plans instead to wait until after it approves and submits its Final GSP before addressing all of the comments. It tries to justify this deferral by stating that it can take the comments into account "as the GSP is implemented and refined." *Id.* Because of SVBGSA's newly announced mid-November comment cutoff, the unaddressed comments include the City and MGSA's November 25, 2019 comment letter and matrix.³

SVBGSA's failure to consider the City and MGSA's comments violates SGMA, which mandates that a GSA "shall review and consider comments from any city or county" within its GSP's area. Cal. Water Code § 10728.4; *see also* Cal. Code Regs. tit. 23, § 354.10(c) (requiring a GSP to include the public comments on the GSP "and a summary of any responses by the [GSA]"). SVBGSA's failure to consider and address these comments undermines the purpose of the public comment process and potentially deprives local governments, beneficial users, and interested parties of the opportunity to provide input on the GSP. *See* Cal. Water Code § 10727.8. Accordingly, SVBGSA's efforts to adopt its GSP without considering or addressing the City and MGSA's comments present a clear violation of SGMA.

Failing to consider the City and MGSA's comments also leaves critical gaps in SVBGSA's GSP unaddressed. These gaps include the GSP's failure to (1) utilize the newest and best available science; (2) designate, protect, and manage the Dune Sand Aquifer as a principal aquifer; (3) provide sufficient protections against ongoing or worsening seawater intrusion; (4) meaningfully recognize, address, monitor, and manage groundwater-dependent ecosystems as a beneficial groundwater use; (5) consider state and federal protections for habitats and species in and near the MGSA area; and (6) include an adequate monitoring network in the coastal portion of the Subbasin. These and the other deficiencies delineated in the City and MGSA's comments only heighten the harm from SVBGSA's refusal to consider them. Adopting SVBGSA's GSP without addressing these issues will fail to protect the Subbasin's coastal areas as well as local beneficial uses and users of groundwater.

When taken together, SVBGSA's instigation of the County's new effort to become a GSA and failure to consider the City's public comments would deny the City of its right to contribute to the management of the MGSA area as either a DWR-recognized GSA or a local government entity. In correspondence with MGSA, SVBGSA has confirmed that it will only

² See SVBGSA, Public Notice Release of Groundwater Sustainability Plan 180-400 Foot Aquifer Subbasin, available at https://svbgsa.org/groundwater-sustainability-plan/180-400-ft-aquifer/.

³ City of Marina and MGSA, Comments on SVBGSA Draft Groundwater Sustainability Plan (Nov. 25, 2019).

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agree to meet with MGSA to coordinate on a GSP if MGSA "agrees to give up its GSA." Relinquishing its GSA status would leave the City with only the public comment process to influence groundwater management in its jurisdiction. However, SVBGSA has thus far failed to consider MGSA's public comments before finalizing its GSP. These efforts collectively would deprive the City and MGSA of their ability to ensure sustainable management of the Subbasin and protect the City's coastal areas.

II. The County And SVBGSA's Proposed Cooperation Agreement Confirms SVBGSA's Role As The County's Affiliate In The County's GSA Takeover.

SVBGSA's proposed resolution adopting a cooperation agreement with the County to install SVBGSA's GSP and manage the overlap area demonstrates SVGBSA's role in the County's proposed unlawful GSA takeover. Indeed, both SVBGSA's proposed resolution and the cooperation agreement provide further proof of the unlawful nature of the County's efforts and SVBGSA's status as the County's affiliate. The City and MGSA oppose the adoption of this proposed cooperation agreement because it formalizes the County and SVBGSA's joint effort to exclude MGSA from the management of the MGSA area.

First, the cooperation agreement evidences the County's and SVBGSA's shared intent to deny MGSA the opportunity to collaborate on groundwater management issues in the Subbasin and circumvent SGMA's coordination requirements. SVBGSA's Staff Report demonstrates that SVBGSA had no intention of coordinating with MGSA and instead has sought ways to work with the County to implement its GSP. Only two days after MGSA released its Draft GSP on October 8, 2019, the SVBGSA Board voted to "request[] that Monterey County take all necessary steps to become the GSA for either the entire 180/400 Foot Aquifer Subbasin or the CEMEX site." SVBGSA Board Agenda, *Staff Report on Agenda Item 7b* at 502. This motion included a request that the County also adopt SVBGSA's GSP. *Id.* Thus, before MGSA and SVBGSA even submitted comments on each other's GSPs, SVBGSA already solicited the unlawful intervention of its member and majority funder to override MGSA and implement its GSP.

Second, SVBGSA and the County's proposed cooperation agreement also confirms their plan to have the County become a GSA, not to manage the overlap area, but instead to effectively install SVBGSA as the exclusive GSA for the MGSA area. In particular, Section 5.2 assigns SVBGSA the responsibility of "comply[ing] with SGMA at the CEMEX Site, including taking actions to review, adopt and implement the GSP." SVBGSA and Monterey County Cooperation Agreement at 4. Section 5.3 then provides that the "County GSA authorizes SVBGSA to exercise any and all legal authorities in compliance with applicable law for the CEMEX Site." *Id.* These provisions demonstrate that the County has no interest in acting as the GSA for the overlap area. The County instead only seeks to use Section 10724 to remove MGSA, so its affiliate, SVBGSA, can manage the site. In other words, the County's resolution

⁴ See Letter from Layne Long to Gary Petersen (Nov. 21, 2019) (stating SVBGSA's position) (enclosed as Attachment 2).



and the cooperation agreement aim to use Section 10724 to do what SVBGSA cannot on its own—adopt SVBGSA's GSP for the MGSA area without coordinating with MGSA and its GSP.

Third, as explained in the City and MGSA's letter opposing the County's GSA resolution, the County is indisputably creating and contributing to the overlap situation, as a member, majority funder, and driving force in the SVBGSA. The proposed cooperation agreement further links the County and SVBGSA through provisions like Section 14.13's joint defense provision. It provides that SVBGSA and the County may "further coordinate and cooperate by undertaking joint defense, including utilizing a common interest/joint defense agreement" to defend against "any challenge to the Subbasin GSP as it relates to the CEMEX Site." *Id.* at 10. The County created and contributed to the overlap with MGSA through SVBGSA. Now, the two affiliates seek to jointly defend their bad faith takeover of the MGSA area against a potential legal challenge from the City and MGSA. This confirms the County and SVBGSA's affiliation as joint actors and further cements the County's status as a creator and contributor to the overlap area.

CONCLUSION

For the reasons outlined above, the City and MGSA oppose SVBGSA's proposed resolutions. Together, SVBGSA's resolutions threaten to silence MGSA both as a local agency participating in the public comment process and as a DWR-recognized GSA. Accordingly, the City and MGSA strongly urge SVBGSA not to adopt either resolution and instead begin working with MGSA to coordinate on a GSP or set of GSPs to sustainably manage the Subbasin.

Sincerely,

Paul P. "Skip" Spaulding, III

PPS:jla Enclosures

cc: Layne Long, Marina City Manager

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ATTACHMENT 1



December 10, 2019

Via Hand Delivery

Monterey County Board of Supervisors 168 West Alisal Street, First Floor Salinas, California 93901

Re: Formation of Groundwater Sustainability Agency and Related Actions
County Board of Supervisors December 11, 2019 Meeting, Agenda Item #4

Dear Chair Phillips and Honorable Monterey County Supervisors:

On behalf of the City of Marina ("City" or "Marina") and the Marina Groundwater Sustainability Agency ("MGSA"), we submit these comments opposing the adoption of a resolution by Monterey County ("County") to become the Groundwater Sustainability Agency ("GSA") for a portion of the 180/400 Foot Aquifer Subbasin ("Subbasin") and to take related actions.

INTRODUCTION

The City of Marina and MGSA strongly object to Monterey County's unlawful effort to subvert the intent and explicit text of the Sustainable Groundwater Management Act ("SGMA"). The County proposes to undertake a "hostile takeover" of MGSA's entire groundwater area and then turn over the management of this groundwater to its affiliate, the Salinas Valley Basin Groundwater Sustainability Agency ("SVBGSA").

The County is hopelessly conflicted and therefore disqualified from taking these actions. It was the moving force in founding SVBGSA, has provided 60% of its funding so far and, until only two months ago, provided all legal services for SVBGSA's SGMA activities and management, including the preparation of SVBGSA's draft groundwater sustainability plan ("GSP"). The County is masquerading as a "neutral" agency coming in to resolve a local agency "overlap" in jurisdiction, but in fact, its sole motivation is to eliminate MGSA and supplant MGSA's GSP in favor of the SVBGSA GSP that it supervised and approved as the most prominent SVBGSA member.

Notably, the County's proposed resolution fails to consider MGSA's GSP, recognize the need for sustainable groundwater management in and near the MGA Area, or make any findings on the merits of SVBGSA's GSP to address these needs. Instead, the proposed resolution demonstrates that the County's true motivation is not collaborative management of the Subbasin,

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but rather is to strip the City of Marina of any voice in the management of groundwater within its own jurisdiction.

MGSA is a validly formed SGMA GSA. It took all required SGMA steps and filed all appropriate notices with the Department of Water Resources ("DWR") for MGSA's formation and GSP preparation, and DWR accepted these notices and posted them on its website. MGSA authorized a \$275,000 contract for preparation of the GSP and continues to expend these funds as its GSP preparation proceeds. MGSA issued a draft GSP on October 8, 2019, and accepted comments on it until November 25, 2019. Responses to comments and any necessary revisions to the GSP will be completed in the next few weeks, and the GSP is scheduled for MGSA consideration in January 2020. Thus, it is "on track" to be submitted to DWR by the January 31, 2020 deadline prescribed in SGMA.

These actions by the County have been orchestrated by California-American Water Company ("CalAm"), which has encouraged the SVBGSA Board and Committees to eliminate the City of Marina and the MGSA by requesting that the County attempt to "take over" MGSA's groundwater area. CalAm, of course, has no interest in sustainable groundwater management — rather, its sole goal is to eliminate any potential impediments to its foundering Monterey Peninsula Water Supply Project ("MPWSP" or "Project"). CalAm does not want the City of Marina to have any groundwater management role in this area, primarily because they prefer the "hands off" approach of SVBGSA. Once SVBGSA made this request to the County, the County immediately notified DWR of its "takeover" plans in a letter and has now published the proposed resolution.

This proposed County action has no precedent under SGMA. The statutory sections which the County relies on are intended to apply only to areas that are "unmanaged" because *no* GSA has filed to manage the groundwater in that area (rather than the situation here where two agencies have filed for the same area). In the only other case where a County has stepped in to

¹ The County and SVBGSA have tried to create the incorrect impression that MGSA is not a valid GSA because it supposedly did not file to be a GSA by a deadline in SGMA. However, this contention has been completely debunked and has never been supported by DWR. We enclose as Exhibit "1" hereto and incorporate herein a copy of a letter dated August 28, 2019 sent to DWR on behalf of MGSA that explains why this contention lacks any merit.

² CalAm has suffered severe, and potentially fatal, setbacks in its efforts to obtain agency permits and authorizations for the MPWSP. After the City of Marina (the certified local coastal agency) denied the primary Coastal Development Permit ("CDP") for the Project, California Coastal Commission Staff recommended that both the appealed CDP application and the CDP application within its original jurisdiction be denied. The Coastal Commission will not consider these permits until March 2020 or later. In the meantime, as the result of a lawsuit brought by Marina Coast Water District, a Monterey County Superior Court Judge has entered an Order enjoining any construction of the Project's desalination plant until at least March 2020. CalAm has also failed to apply for or pursue other key federal and state permits necessary for the Project. If the Project is ever fully approved and constructed, it will be many years behind schedule.

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resolve an overlap in jurisdiction, the local agencies *supported* the county action. According to DWR: "No county has yet sought to use Section 10724 [the SGMA section relied on by the County] to form a GSA against the wishes of agencies within their jurisdiction."

Monterey County appears to be adopting the simplistic position that DWR has supposedly blessed this action through a letter dated November 5, 2019 ("DWR Letter"). However, the County is making a serious mistake. DWR actually said that the County might be able to do so if certain conditions are satisfied. Ultimately, a court will determine whether SGMA allows the County to take this action in the current context. And under California administrative law, courts give no deference to inconsistent agency statutory interpretations. See, e.g., Yamaha Corp. of Am. v. State Bd. of Equalization, 19 Cal. 4th 1, 13 (1998)("Yamaha"). DWR has taken inconsistent positions over time on this issue, and the County's current position directly contradicts its position only two months ago. Indeed, on the crucial "creating or contributing" test discussed below, the County's action would violate the published guidance of the State Water Resources Control Board ("State Board") on this issue. Moreover, the latest DWR advice runs directly counter to SGMA's text and purpose. Given the lack of case precedent and the shifting DWR positions, it would be extremely risky for the County to adopt this resolution.

This dispute must be viewed against the larger backdrop of the MGSA and SVBGSA GSPs. The SVBGSA GSP is a regional approach to the management of the Subbasin which is primarily oriented to protecting the interests of the agricultural producers north of the Salinas River and inland from the coastal region. The GSP ignores or disregards the recent site-specific studies by a Stanford University research team and others, based on state-of-the-art airborne electromagnetic ("AEM") techniques, that have resulted in three-dimensional maps and cross-sections of the Subbasin groundwater, which forms the best scientific information on Subbasin groundwater conditions.

The SVBGSA GSP contains a wholly deficient monitoring network south of the Salinas River. No meaningful monitoring of any kind is proposed within several miles of the coast, leaving the area effectively unmanaged under SGMA. The SVBGSA GSP also fails to consider and manage groundwater resources in the Dune Sand Aquifer that are designated by the State Board to be protected, and fails to acknowledge or protect the interconnected surface water features such as the vernal pools and wetlands in and near the City of Marina. Thus, the County's proposed takeover of the MGSA as an "unmanaged area" will have exactly the opposite effect – it will perpetuate a lack of management of groundwater resources in this area by failing to protect local beneficial uses and users of groundwater in favor of the policy preferences of a select group of inland beneficial users.

In contrast, MGSA has prepared a locally-focused GSP that uses the best available science and information to ensure sustainable groundwater management in the MGSA Area, to protect local beneficial users and property, and to support regional efforts to address seawater intrusion and other undesirable results. Unlike the SVBGSA GSP, the MGSA GSP characterizes, monitors and manages the Subbasin groundwater resources south of the Salinas



River in the coastal region and recognizes the important municipal, domestic, groundwater dependent ecosystem, and other beneficial uses and users in this area, including the urban and other users who depend on this drinking water source in the Subbasin and the adjacent Monterey Subbasin.

Five independent reasons, discussed below, prevent Monterey County from invoking Section 10724 in attempt to become the new GSA for the overlap portion of the Subbasin:³

- Because Monterey County is creating and/or contributing to the overlap, it cannot invoke Section 10724;
- Section 10724 does not authorize a county to file a GSA notice for areas covered by multiple GSA notices;
- Monterey County's decision to invoke Section 10724 is premature and would unlawfully circumvent SGMA's explicit local agency coordination requirements and GSP resolution provisions;
- Monterey County's resolution to become the GSA for the overlapping area cannot nullify MGSA's GSA notice or solve the underlying coordination problem; and
- Monterey County cannot become the GSA for the overlap portion in time to submit a GSP before SGMA's January 31, 2020 deadline.

The County should be clear that the City of Marina and MGSA view this proposed action and resolution as a direct and unlawful attempt to eliminate the City's SGMA rights and responsibilities and that the City and MGSA will take all necessary steps to protect their SGMA jurisdiction. The City strongly advises Monterey County not to undertake this misguided action.

SGMA CONTEXT

Both MGSA and SVBGSA filed notices of their GSA formation and of their intent to prepare GSPs for the Subbasin. While SVBGSA's notice covers the entire Subbasin, MGSA's notice applies only to an approximately 400-acre portion of the Subbasin within the City of Marina's jurisdictional boundaries that is not under the jurisdiction of a local water agency. Thus, MGSA and SVBGSA have overlapping claims to this portion of the Subbasin.

When competing GSA notices cause overlapping boundaries, SGMA prevents a GSA decision from "tak[ing] effect unless the other notification is withdrawn or modified to eliminate any overlap in the areas proposed to be managed." Cal. Water Code § 10723.8(c). Here, DWR has not recognized an exclusive GSA for the Subbasin. *See* DWR SGMA Portal, *All Posted GSA*

³ We enclose as Exhibit "2" hereto and incorporate herein a copy of a October 21, 2019 letter on behalf of MGSA to DWR explaining these factual and legal issues.



Notices. SGMA instructs the local agencies to "seek to reach agreement to allow prompt designation of a groundwater sustainability agency." Cal. Water Code § 10723.8(c). SGMA further requires GSAs "intending to develop and implement multiple groundwater sustainability plans" to "coordinate with other agencies preparing a groundwater sustainability plan within the basin." Id. § 10727.6. The GSAs must "jointly submit" their GSPs with a coordination agreement "to ensure the coordinated implementation of the groundwater sustainability plans for the entire basin." Id. § 10733.4(b); see also Cal. Code Regs. tit. 23, § 357. 2.

Accordingly, when GSAs file overlapping claims, SGMA envisions a process where those agencies negotiate in good faith to reach a compromise and enter into a coordination agreement which they submit with their GSPs. MGSA and SVBGSA must file their GSPs and coordination agreement for the Subbasin by January 31, 2020.

LEGAL AND FACTUAL ANALYSIS

I. Monterey County Cannot Invoke Section 10724 Because It Is A Creator And Contributor To This GSA Overlap.

A county cannot invoke Section 10724 if it "is creating or contributing to the [GSA] overlap." State Board, *Frequently Asked Questions on GSAs*, at 3 (Nov. 22, 2017) ("SWRCB FAQs"). The State Board's limitation on Section 10724 prevents counties that contribute to overlapping areas from circumventing SGMA's GSA collaboration requirements.

Here, the County is indisputably creating and contributing to the GSA overlap as a member, majority funder, and architect of SVBGSA and its GSP. As a result, the State Board's limitation precludes the County's proposed resolution, which weaponizes Section 10724 in an attempt to install its affiliate's GSP and disregard a properly-formed GSA with jurisdiction over the MGSA Subbasin area. The necessary implications of SGMA's GSA coordination requirements mandate that the County cannot override MGSA's GSP and deny MGSA the opportunity to collaborate with SVBGSA on the management of groundwater within Marina's jurisdiction.

A. Based On Its Close Affiliation with SVBGSA, The County Is Creating Or Contributing To The Overlap Area.

As discussed in Section II, the Legislature intended counties to use Section 10724 as a backstop to protect groundwater users from facing Water Code Section 5202(a)(2)'s reporting requirements. The County's proposed resolution would attempt to improperly exploit this backstop to install a GSP commissioned by the County as a member of SVBGSA.

The County was the moving force behind SVBGSA's formation and even "pushed for the establishment of the Joint Powers Authority" ("JPA"). SVBGSA Minutes at 2 (Sept. 19, 2019). Section 10.4 of the JPA Agreement for SVBGSA shows that the County has provided almost

⁴ Available at https://sgma.water.ca.gov/portal/gsa/all.



60% of all initial funding for SVBGSA during the 2017–19 period, totaling \$1.34 million. Monterey County remains a member of SVBGSA, and the County Administrative Officer position (who authored the County's October 9, 2019 letter to DWR) is designated as the official County representative to SVBGSA. *See* Exhibit A to SVBGSA's JPA Agreement. Further, the County played an integral role in the development of SVBGSA's GSP. The Monterey County Counsel's office has served as the attorney for SVBGSA as it filed GSA and GSP notices and prepared the GSP that the County's resolution seeks to adopt after it overrides MGSA.

In short, contrary to the resolution's purported findings, the County, as a member, majority funder, and driving force in the SVBGSA, is indisputably creating and contributing to the overlap situation. The County therefore cannot credibly pose as a disinterested county coming in under a ministerial application of Section 10724 to resolve a dispute among two local GSA agencies. This is precisely the kind of conflict situation that disqualifies a county from attempting to invoke Section 10724 under the "creating or contributing" limitation.

B. The County's Proposed Resolution Would Represent A Bad Faith Attempt To Circumvent SGMA's Coordination Requirements And Implement The GSP Of Its Close Affiliate.

Monterey County's proposed resolution vividly illustrates the dangers of a county misusing Section 10724 to override a local agency instead of cooperating with it. The County's proposed resolution responds to a request by an affiliated entity (SVBGSA) to prevent the City of Marina from exercising its GSA authority. Monterey County then seeks to adopt the same GSP that the County helped design as a member of SVBGSA. Notably, Monterey County fails to even consider adopting any part of MGSA's GSP, addressing SGMA management gaps identified by MGSA, or providing any justification for adopting SVBGSA's GSP. The County likewise fails to present any groundwater management justification for asserting control over the overlap area.

It is striking that the County actually has no intention of managing the overlap area, which is exactly what it would be required to do under Section 10724. Rather, the County blatantly announces its intention to instead delegate management authority to SVBGSA, whose GSP provides no framework for sustainable groundwater management in or near the MGSA Area, and does not consider the needs and rights of coastal beneficial groundwater users and uses. These County actions lead to only one conclusion. The County's resolution seeks to use Section 10724 to do what the County's affiliate SVBGSA cannot: adopt only the SVBGSA GSP for the MGSA jurisdictional area without coordinating with MGSA and its GSP. Indeed, the intent appears to be retain the area as essentially unmanaged under SGMA, leaving CalAm to implement the MPWSP unhindered by any requirements for sustainable groundwater management for the benefit of beneficial users in inland portions of the Subbasin. The State Board's guidance aims to quash these exact types of bad-faith maneuvers.

While the County's proposed resolution blames the overlap on Marina's GSA notice, the County and SVBGSA continue to contribute to the overlap by refusing to collaborate with MGSA. The County and SVBGSA are engaging in this waiting game at the behest of CalAm,



which has encouraged these actions to promote its Project. In its October 9, 2019 letter to SVBGSA, copied to the Monterey County Administrative Officer, CalAm requests both entities to "defer any action on a coordination agreement" with MGSA and instead advocates that the County should become the GSA for the overlap area. CalAm takes the ridiculous position that MGSA is only preparing a GSP to stop its Project and attempts to enlist the County's help so that it can build the Project. CalAm is not a GSA, and, as a private corporation intent on profit, it has no interest in ensuring sustainable groundwater management in the Subbasin. Rather, it is a third party with no official role in this SGMA process, attempting to pressure public agencies to achieve its corporate goals. By advocating to stop any coordination agreement discussions, CalAm wanted to artificially create an impasse in hopes of a County takeover. And by acquiescing to CalAm's demands, the County and SVBGSA have needlessly created this situation.

We note that the MGSA has been working in good faith to negotiate a Coordination Agreement with SVBGSA and, in August 2019, prepared, approved and transmitted to SVBGSA a draft agreement based on a template provided by SVBGSA. Since that time, SVBGSA staff has not negotiated in good faith with MGSA to reach agreement. In contrast, in the last month, SVBGSA has developed a Coordination Agreement with the County, which is being considering for adoption at the SVBGSA Board meeting on December 12, 2019. This backroom Coordination Agreement effort with the County vividly illustrates that SVBGSA knows how to negotiate such an Agreement when it really wants to.

SGMA, in contrast, "requires the agencies to resolve" boundary disputes. SWRCB FAQs at 3. The State Board only deems an area unmanaged until the GSAs resolve their conflict. *Id.* This limitation aligns with the intended purpose of Section 10724 to function as a backstop, allowing a county to assume the role of a GSA in a ministerial manner as a last resort or as a temporary solution before a local agency can take control. Instead of serving that purpose, Monterey County's proposed resolution uses Section 10724 to target only the City of Marina and block it from exercising its GSA authority and implementing its GSP. This bad-faith effort contravenes SGMA's emphasis on and processes for local agency cooperation and basin management.

C. DWR's Latest Inconsistent Interpretation Of Section 10724 Does Not Apply.

DWR has articulated inconsistent standards for when a county is disqualified from invoking Section 10724. First, DWR guidance authored in May 2019 prohibits a county who "is responsible for creating the overlap" from becoming a GSA under Section 10724. DWR, GSA Frequently Asked Questions, at 4 (May 10, 2019) ("DWR FAQs"). A DWR representative (Tom Berg) expanded on DWR's position at the September 19, 2019 SVBGSA Advisory Committee meeting, stating to SVBGSA that:

Monterey County can remove itself from the SVBGSA and become the GSA for the unmanaged area and enter into a coordination agreement. The cleaner approach is if Monterey County decides there is an overlap and becomes the GSA for the



entire 180/400 Subbasin. They can become the GSA for only Marina if they do not create the GSA with the intent to take over Marina's portion. You can resolve the overlap and trust Marina will timely submit their Plan. If the Plan is determined to be insufficient during the two-year review, the Water Board could determine the entire Subbasin to be insufficient. He expects legal fights if Monterey County takes over the Subbasin. Mr. Berg referenced the determination that Kern County had created their overlap conflict, and they were prevented from becoming the GSA as a result.

Tom Berg stated that during the telephone conversation with Mr. Nordberg, DWR, it was suggested that the cleaner approach is for Monterey County to become the GSA for the entire basin. If the County becomes the GSA only for Marina, it is no longer ministerial in terms of taking out Marina instead of just trying to clear the overlap.⁵

*

Id. at 3–4 (emphasis added).

As you can see, the requirements for County use of Section 10724 articulated by DWR at this meeting contains several important elements. First, the County would need to remove itself as a member of the SVBGSA before undertaking any action under Section 10724 to eliminate the conflict of interest and associated County contribution to the overlap. Second, the County is barred from creating the GSA "with the intent to take over Marina's portion." Third, if the County does not take over management of the entire Subbasin, it would contravene SGMA because it is clearly only trying to take out Marina. The County's resolution fails to address and follow these DWR requirements. It plans to remain a member of the SVBGSA, its transparent intent is to take over Marina's portion, and it is not installing itself as the GSA for the entire Subbasin.

Despite recently articulating these positions, DWR's November 5, 2019 letter attempts to constrict the standard for precluding a county from invoking Section 10724. The DWR Letter states, "that it would be inappropriate to accept a Section 10724 notice from a county that had deliberately created the overlap that led to the existence of an unmanaged area with the purpose of doing so, and simply waited out other actual or potentially overlapping agencies." DWR

⁵ The minutes reflect that a representative of Monterey County (Charles McKee) attended this meeting.

⁶ Even under its narrower test, DWR also appears to share concerns about Monterey County's contribution to the overlap. In particular, the DWR Letter requests further "information related to the decision-making role of the County as part of the SBVGSA, and the intent of the SBVGSA in filing the notice that resulted in overlap" if the County decides to submit a GSA notification. DWR Letter at 2.

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Letter at 2. This standard purports to narrow and change the exception that DWR previously recognized in its own guidance and articulated to SVBGSA. And unlike the State Board's "creating or contributing" standard (SWRCB FAQs at 3), DWR's new standard potentially only guards against situations where a county files a GSA notice after another GSA. However, as the County's current actions demonstrate, a county can act in bad faith even if it or its affiliate filed its GSA notice first by refusing to coordinate with the other GSP and invoking Section 10724 to install its affiliate's GSP.

DWR's failure to consistently articulate its standard for precluding bad-faith actions under Section 10724 undermines the weight a reviewing court will grant it. Although California courts consider an agency's interpretation of a statute, "the binding power of an agency's interpretation of a statute or regulation is contextual . . . and depend[s] on the presence or absence of factors that support the merit of the interpretation." *Yamaha*, 19 Cal. 4th at 7. When applying this standard, courts further recognize that an agency's "vacillating position . . . is entitled to no deference." *United Artists Theatre Circuit, Inc. v. Reg'l Water Quality Control Bd.*, No. A152988, 2019 WL 6337763, at *18 (Cal. Ct. App. Nov. 27, 2019) (quoting *Yamaha*, 19 Cal. 4th at 13) (internal quotation marks omitted).

Here, the DWR Letter attempts to change its previous standard and limit its Section 10724 exception to situations where a county or its affiliate files its GSP notice after another GSA. This limitation contradicts DWR's previously issued guidance and statements to SVBGSA. Further, the DWR's Letter fails to explain or even acknowledge this switch. DWR likewise offers no justification for the fact that its new standard potentially only covers one of many scenarios in which a county could use Section 10724 in bad faith to override an overlapping GSA and circumvent SGMA's coordination requirements. DWR's interpretation warrants even less deference given the unprecedented nature of the County's actions. DWR Letter at 2 (noting that "[n]o county has yet sought to use Section 10724 to form a GSA against the wishes of agencies within their jurisdiction"). Accordingly, a Court will likely disregard DWR's latest articulated standard, and that standard cannot serve as the basis for the County's proposed resolution.

D. The County's Bad Faith Intentions Also Preclude It From Invoking Section 10724.

As described in Section I(A), the County's failure to (1) offer a groundwater management justification for invoking Section 10724, (2) consider adopting any part of MGSA's GSP, or (3) support its decision to adopt SVBGSA's GSP, demonstrate that the County's intention in adopting the proposed resolution is only to adopt its affiliate's GSP without coordinating with MGSA. The County's plan to delegate management of the overlap area to SVBGSA provides further evidence of its bad faith intentions. Indeed, the County's plan to adopt the SVBGSA GSP will leave the coastal area south of the Salinas River without a monitoring and management framework for sustainable groundwater management in violation of SGMA and its own General Plan policies. These intentions contravene SGMA's purpose of promoting collaborative groundwater basin management, and as result, they cannot be permitted.



As DWR's representative stated to SVBGSA, the County "can become the GSA for only Marina if they do not create the GSA with the intent to take over Marina's portion." SVBGSA Minutes at 3 (Sept. 19, 2019). For example, a determination that Kern County created its overlap conflict prevented it from becoming the GSA. *Id.* Only one county has successfully relied on Section 10724 to become a GSA for an area with overlapping GSAs. DWR Letter at 2. And unlike the current situation, the overlapping GSAs there *supported* the county's decision. *Id.* Indeed, no county has ever attempted to form a GSA using Section 10724 "against the wishes of agencies within their jurisdiction." DWR Letter at 2. Therefore, Monterey County is the first county to invoke Section 10724 as part of a strategy to veto the GSP of a valid GSA within its jurisdiction. Moreover, the proposed resolution creates a dangerous precedent, not intended by SGMA, that enables counties to ignore and override the actions of GSAs within their county area.

II. SGMA Section 10724 Does Not Apply To This Situation Because Multiple GSAs Have Asserted SGMA Jurisdiction Over The Overlap Area.

The County relies primarily on Water Code Section 10724(a) for its potential plan to eliminate MGSA and take over its SGMA jurisdictional area. This provision states:

In the event that there is an area within a high- or medium-priority basin that is not within the management area of a groundwater sustainability agency, the county within which that unmanaged area lies will be presumed to be the groundwater sustainability agency for that area.

Cal. Water Code § 10724(a) (emphasis added).

The County is mistaken in asserting that this provision applies here. As SGMA's legislative history reflects, the Legislature intended Section 10724 to cover situations where *no* GSA asserts jurisdiction over an area within a basin, not where multiple GSAs assert jurisdiction and prepare GSPs for a particular area. Indeed, the DWR Letter characterizes Section 10724 as a "backstop" to prevent Section 5202(a)(2)'s reporting requirements from applying. DWR Letter at 2. Section § 5202(a)(2) requires persons who extract groundwater within a high- or mediumpriority basin on or after July 1, 2017, to file a report of groundwater extraction if (1) the area "is not within the management area of a groundwater sustainability agency" and (2) "the county does not assume responsibility to be the groundwater sustainability agency" for that area. This implicitly provides that the overlapping GSA notices did not render the area unmanaged under

⁷ The Legislature intended Section 10724 to apply "in the case of an area where no local agency has *assumed* management." S. Rules Comm., Floor Analysis on S.B. 11168 at 4 (Aug. 29, 2014) (emphasis added). In particular, the Legislature linked this provision to whether a local agency has acted to assume management over an area—not whether the local agency has become the exclusive GSA.

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Section 5202(a)(2). The overlapping GSA notices likewise do not render the Subbasin unmanaged under Section 10724. Indeed, because no reporting requirements currently apply to the Subbasin, no need exists for the County to intervene to prevent the triggering of Section 5202(a)(2)'s reporting requirements.

The County's interpretation of Section 10724 inaccurately conflates the provisions for establishing an exclusive GSA under SGMA Section 10723.8 with Section 10724 to reach a faulty conclusion that, because of the overlapping area in MGSA's and SVBGSA's GSA notices, SGMA deems the areas "unmanaged." Section 10724(a) does not address disputes arising under the process for determining an exclusive GSA under Section 10723.8, and the purpose of Section 10724 weighs against reading Sections 10723.8 and 10724 together in this manner. Rather, these GSA and GSP provisions are best understood as operating at the same time on parallel tracks. Consistent with this interpretation, the plain language of Section 10724(a) does not require that a basin be within the management area of an exclusive GSA. Therefore, where multiple GSAs file to manage the same basin area, Section 10724(a)'s text cuts against the County's ability to claim the area is unmanaged. This is especially true when, as here, both of the GSAs are on track to submit their GSPs, and a coordination agreement is not due for any overlapping areas until the January 31, 2020 GSP submittal deadline.

Accordingly, when multiple GSAs adopt GSPs to manage a basin, that area falls within the management area of several GSAs, and Section 10724 does not apply. No DWR regulations or any judicial decisions interpret this section or alter its plain meaning.⁹

III. Monterey County's Resolution Is Premature And Would Fatally Undermine SGMA's Required GSA Collaboration Process.

SGMA establishes a specific process for GSAs who file overlapping notices to coordinate and submit a joint GSP or set of GSPs. See Cal. Water Code §§ 10727.6 and 10733.4(b). The Water Code likewise provides a process for resolving disputes if GSAs fail to coordinate and submit joint GSPs for a critically overdrafted basin by the January 31, 2020 deadline. In that situation, the State Board can designate that basin as probationary. Id. §§ 10735.2(a)(2) and 10735.2(a)(3) (providing that the State Board can also make a probationary designation after finding that a GSP is inadequate). The State Board must give the local agencies or GSAs "180 days to remedy the deficiency," and "[t]he board may appoint a mediator or other facilitator . . . to assist in resolving disputes, and identifying and implementing actions that will remedy the

⁸ Although State Board guidance suggests that overlapping GSA notices would trigger Section 5202(a)(2)'s reporting requirements, this has not been the case in practice. State Board, Frequently Asked Questions on GSAs, at 5 (Nov. 22, 2017) ("SWRCB FAQs").

⁹ MGSA acknowledges that one guidance document from the State Board opines that "[i]f two or more local agencies overlap, the combined area will be deemed unmanaged" and asserts that a county potentially could become a GSA in this situation. SWRCB FAQs at 3. However, this interpretation is not consistent with the intent, legislative history, and text of Section 10724 and is unsupported by any official regulation or case law.

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deficiency." *Id.* § 10735.4(a). This provision covers disagreements over overlapping portions of the basin.

The County's resolution seeks to strip MGSA of its authority over the overlap area and to intervene as the exclusive GSA. In doing so, the County is misusing Section 10724 to implement the GSP of its affiliated GSA entity, violating State Board and DWR guidance directly on point, and undermining SGMA's dispute resolution processes. This action would set a dangerous precedent that could incentivize the misuse of Section 10724 by counties.

IV. Monterey County Cannot Use Section 10724 To Nullify MGSA's GSA Notice Or The Need For MGSA And SVBGSA To Resolve The Overlap.

The County appears to assume that by invoking Section 10724 and becoming the GSA for the overlap area, the County will nullify MGSA's GSA notice. However, nothing in SGMA or its regulations provides that a county or other local agency can nullify the GSA notice of another. Indeed, SGMA specifically provides that to resolve an overlapping area, a GSA "notification [must be] withdrawn or modified to eliminate any overlap in the areas proposed to be managed"—not overridden by another local agency. Cal. Water Code § 10723.8(c). Similarly, Section 10724 does not change this fundamental premise or grant a county the power to nullify a GSA notification. Accordingly, even if the County attempts to become the GSA for the overlap area, MGSA's GSA notification will remain valid.

Section 10724 also does not give the County the power to designate another local agency as an exclusive GSA. Instead, DWR has responsibility for posting GSA notifications. *See* § 10723.8(b). On the SGMA portal, DWR currently does not list either MGSA or SVBGSA as the exclusive GSA for any portion of the Subbasin. See DWR SGMA Portal, All Posted GSA Notices; DWR SGMA Portal, Salinas Valley Basin GSA - 180/400 Foot Aquifer Map. DWR instead identifies the GSA notices of both MGSA and SVBGSA as overlapping. *Id.* DWR will not recognize MGSA's and SVBGSA's notices until they resolve their conflict, and the County's intervention under Section 10724 for the overlapping portion will not change this. Both MGSA's and SVBGSA's notices will remain valid, but non-exclusive, GSA notifications. Accordingly, the only way for SVBGSA to become the exclusive GSA for any part of the Subbasin is for MGSA and SVBGSA to reach a coordination agreement.

The fact that SVBGSA and MGSA will remain nonexclusive GSAs even if the County invokes Section 10624 raises additional logistical issues. Under SGMA, a GSP or set of GSPs must "cover[] the entire basin." Cal. Water Code § 10727(b); see also Cal. Code Regs. tit. 23,

¹⁰ This map is available at https://sgma.water.ca.gov/portal/gsa/print/461.P

Indeed, State Board guidance provides that "[i]f two local agencies file notices with DWR to be a GSA for the basin, and all or a portion of their proposed management areas overlap as of June 30, 2017, neither of the local agencies will become a GSA. As a result, the proposed management areas of both local agencies will be unmanaged." SWRCB FAQs at 4; *see also* DWR FAQs at 4 ("If overlap exists, the decision to become a GSA will not take effect unless the overlap is eliminated.").



§ 355.4(a)(3); Cal. Water Code § 10733.4(b)) ("If groundwater sustainability agencies develop multiple groundwater sustainability plans for a basin, the submission" of a GSP "shall not occur until the entire basin is covered by groundwater sustainability plans"). Thus, if the County maintains that only GSAs who DWR has designated as exclusive GSAs may file a GSP, then SVBGSA and MGSA will not be able to file GSPs. The County likewise will not be able to file a GSP for the overlapping area because the GSP would not cover the entire basin. As a result, the County would instead have to become the GSA and submit a GSP for SVBGSA's entire jurisdiction in the Subbasin. The County would then have to manage the entire Subbasin until MGSA and SVBGSA resolve the overlap. This would cause needless and extensive organizational and financial harm to all the parties involved and would completely undercut SGMA's goals. Therefore, the County's attempt to become the GSA for only the overlap area will not result in efficient or effective management of the Subbasin or relieve SVBGSA of the need to coordinate with MGSA to resolve the overlap.

V. The County Must Wait 90 Days For Its GSA Notice To Take Effect, So It Cannot Meet SGMA's January 31, 2020 Deadline.

Although the DWR Letter asserts that the County would immediately become the exclusive GSA when DWR posts the County's GSA notice, DWR fails to cite any legal authority for instantly granting a county exclusive GSA status. DWR Letter at 3. Instead, DWR states that its "practice has been to immediately declare the GSA exclusive." DWR Letter at 3. However, this statement contradicts DWR's statement earlier in the letter that no other county has attempted to use Section 10724 despite opposition from a GSA within its jurisdiction – so, in fact, DWR has *never* immediately posted a county notice letter in this situation. *Id.* at 2.

The DWR Letter also states that it "adopted that practice on the assumption that counties would be taking responsibility for areas in which no other agency had any interest," and that "same logic applies for notices filed in areas that are unmanaged as a result of the overlapping GSA notices of other entities." *Id.* at 3. However, the same logic does not apply because SGMA provides a specific process for GSAs who file overlapping notices to coordinate and submit a joint GSP or set of GSPs. *See* Cal. Water Code §§ 10727.6 and 10733.4(b).

Further, in an overlap situation, multiple GSA's have an "interest" in an area and applying the 90-day notice period allows the overlapping GSAs to engage in the coordination process before the county's GSA notice takes effect. This interpretation promotes SGMA's collaboration process. It also recognizes the fact that given the opportunity, GSAs may resolve an overlap situation without the need for county intervention, which aligns with Section 10724's purpose of serving as a backstop for when SGMA's other processes fail. As a result, the County must wait 90 days before becoming a GSA for the overlapping area to allow SVBGSA and MGSA to resolve the overlap and collaborate on a GSP or set of GSPs. The County therefore could not submit a GSP before the January 31, 2020 deadline.

¹² MGSA acknowledges that State Board guidance also states that "[t]here is no 90-day waiting period for the county's intent to become the GSA to take effect" in this scenario. SWRCB FAQs at 4.



CONCLUSION

For the foregoing reasons, the County cannot lawfully invoke Section 10724 to become the GSA for the overlap portion of the Subbasin. Bending to the will of CalAm and its reluctance to be governed and monitored by the government entity with the overlying interest (or to be subject to negotiation under sustainable management criteria at all), is fatally inconsistent with SGMA and the intention of the Legislature to sustainably manage groundwater. The City of Marina formed MGSA to prepare its own GSP to govern critical groundwater resources within its jurisdiction in this Subbasin and is completely consistent with the spirit and language of SGMA.

MGSA is complying in all respects with SGMA and MGSA is prepared to take the necessary steps to protect its jurisdiction over the CEMEX site. In the first instance, this means continuing its efforts to finalize and submit its GSP for the overlapping area by the January 31, 2020 deadline. By committing significant financial resources and following the prescribed SGMA process, MGSA has been doing exactly what the law requires and is entitled to complete the process.

The proposed resolution by which the County would attempt to take over MGSA's jurisdictional area and to install its affiliate SVBGSA as the manager of this area using SVBGSA's GSP is a bad faith attempt to misuse SGMA to eliminate MGSA and achieve a hostile takeover of its area. This action, which was conceived and encouraged by CalAm and SVBGSA, would violate SGMA and deprive the City of Marina and MGSA of their SGMA rights, leaving the area effectively unmanaged under SGMA. The City and MGSA strongly oppose this resolution and encourage the County not to pursue this misguided course of action.

Sincerely,

Paul P. "Skip" Spaulding, III

PPS:jla

cc: Layne Long, Marina City Manager

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Marina City Council (via e-mail)

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(via e-mail kvandermaaten@mcwd.org)

EXHIBIT 1



August 28, 2019

Via SGMA Portal and E-Mail

Ms. Taryn Ravazzini (taryn.ravazzini@water.ca.gov)
Deputy Director of Statewide Groundwater Management
Department of Water Resources
P.O. Box 942836
Sacramento, California 94236-0001

Re: City of Marina GSA Groundwater Sustainability Plan
Response to California-American Water Company Comment Letter

Dear Ms. Ravazzini:

We submit this letter on behalf of the City of Marina Groundwater Sustainability Agency ("MGSA"), which recently filed an initial notification of its intent to prepare a Groundwater Sustainability Plan ("GSP") for a portion of the 180/400 Foot Aquifer Subbasin ("Subbasin") as authorized by the Sustainable Groundwater Management Act ("SGMA"). This letter responds to the August 12, 2019 comment letter submitted by the Ellison Schneider law firm on behalf of California-American Water Company ("CalAm").

In this "comment letter," CalAm requests that the Department of Water Resources ("DWR") "reject" MGSA's Groundwater Sustainability Agency ("GSA") formation notice and its GSP initial notification. However, CalAm has no legal standing under SGMA to make the request and lacks any legal authority or precedent to obtain the relief it seeks. In fact, CalAm's letter is no more than a misguided attempt by a third party to short-circuit the processes prescribed by SGMA for resolution of local groundwater management issues. Moreover, CalAm has mischaracterized the underlying facts and invented non-existent policy reasons to support its unprecedented request. DWR is not required to respond to or to take any action in response to this letter. See 23 C.C.R. § 353.8(f). However, if DWR does respond, it must deny CalAm's request in all respects.

BACKGROUND FACTS

The MGSA was validly formed in full compliance with SGMA. On March 20, 2018, the Marina City Council adopted a resolution forming the MGSA to "undertake sustainable groundwater management within the portion of the Salinas Valley Ground Water Basin 180/400

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Foot Aquifer Subbasin within the City and outside of the Marina Coast Water District service area." On April 16, 2018, MGSA properly filed a notice of its GSA formation with DWR pursuant to Water Code Section 10723.8. DWR duly accepted and posted MGSA's notice of GSA formation on its SGMA Portal.

On July 31, 2019, pursuant to Water Code Section 10727.8(a), the City filed an initial notification of intent to prepare a GSP for its jurisdictional area. This notice provides a written statement describing the manner in which interested parties may participate in the development and implementation of the GSP and contains the other required elements for this initial notice. MGSA also provided the notice to all required persons. MGSA is proceeding forward rapidly with preparation of the GSP and, in its initial notice, specifically identified the MGSA meeting dates and other opportunities for the public to provide comments and other input on the GSP. MGSA's GSP is expected to be completed and submitted to DWR by January 31, 2020.

CALAM'S COMMENT LETTER LACKS ANY LEGAL, FACTUAL OR POLICY BASES TO SUPPORT ITS "REJECTION" REQUESTS.

CalAm's comment letter makes a series of unsupported legal contentions in which it attempts to question the validity of MGSA's formation and to argue that the Salinas Valley Basin Groundwater Sustainability Agency ("SVBGSA") must or should be the exclusive GSA for the entire Subbasin. However, not only do these arguments lack any factual and legal support, but they improperly attempt to undermine decisions already made by DWR and to thwart the ongoing collaborative local processes that are embedded in SGMA.

For the reasons explained below, CalAm's arguments should be disregarded in their entirety. Instead, the processes contemplated by SGMA should continue without the partisan interference reflected in CalAm's letter. We will address each CalAm argument in turn.

A. The MGSA Was Validly Formed In A Timely Manner And There Is No Factual Or Legal Basis For Attempting To "Reject" Its GSA Formation Notice.

CalAm contends that the MGSA should not be recognized as a valid GSA because it was not formed before June 30, 2017. However, CalAm has made several fundamental analytical errors that have led to this spurious contention.

First, SGMA does not contain a mandatory final deadline for the formation of all GSAs, even for medium and high priority basins. The only SGMA mention of the June 30, 2017 date in this context is in Water Code Section 10735.2 (a)(1), which relates to the circumstances under which the State Water Resources Control Board ("State Board") can designate a basin as a probationary basin and thereafter take steps to develop its own interim groundwater sustainability plan for that basin. *See* Water Code §§ 10735.4-10736.6. The June 30, 2017 date is only the trigger date for a potential probationary basin finding if one or more GSAs, or a local agency "alternative" plan, has not been noticed for an entire basin. Contrary to CalAm's contention, it is not a drop-dead date for all GSAs to have been formed and it is not true that no additional GSAs can form in a basin after that date.



Second, CalAm attempts to buttress its erroneous analysis with a quotation, taken out of context from DWR's website, that supposedly stands for the proposition that June 30, 2017 is the absolute deadline for forming a GSA. To the contrary, DWR characterizes the June 30, 2017 date on its website as only an "initial planning milestone" and recognizes that new GSAs can, will and have been formed thereafter as SGMA implementation continues. This portion of the DWR website states in full (emphasis added):

SGMA required Groundwater Sustainability Agencies (GSAs) to form in the State's high- and medium- priority basins and subbasins by June 30, 2017. Over 260 GSAs in over 140 basins were formed by SGMA's initial planning milestone. However, as SGMA continues to be implemented and the priorities and boundaries of some basins change, new GSAs will be formed, and existing GSAs may want to reorganize, consolidate, or withdraw from managing in all of part of a basin. All GSA notifications are managed on DWR's SGMA Portal.¹

Thus, the GSA formation process was expected to and has in fact continued after June 30, 2017 as SGMA continues to be implemented. Indeed, after June 30, 2017, at least ten other new GSA formation notices were posted, including those for the Fresno County Pleasant Valley GSA Area, City of Coalinga GSA, Vina GSA, Montecito Groundwater Basin GSA, Owens Valley Groundwater Authority GSA (for two different basin areas), Castaic Basin GSA, Triangle T Water District GSA, Santa Barbara County Water Agency GSA – Goleta Fringe Areas, and Corning Subbasin GSA. It appears that all but one of these post-June 30, 2017 GSA formations cover high or medium priority basins.

In sum, CalAm's assertion that MGSA's GSA formation notice should be rejected because it was filed after June 30, 2017 has no factual or SGMA legal basis. There was not an absolute June 30, 2017 deadline for forming GSAs because this process is intended to be fluid and not frozen in time. Rather, it was an initial planning milestone for determining what basins may qualify for probationary status. Indeed, this has consistently been DWR's position. Although CalAm would like to override both SGMA and DWR's judgment on this point for its own private financial purposes, it cannot do so here.

B. The SVBGSA Never Became The Exclusive GSA For The 180/400 Foot Subbasin.

CalAm makes a tortured and wholly frivolous argument that SVBGSA became the exclusive GSA for the 180/400 Foot Aquifer Subbasin on July 26, 2017, thereby supposedly preventing the City of Marina from forming a GSA or preparing a GSP for any portion of the Subbasin. However, once again, this argument defies the considered judgment of DWR and

¹ This website page is found at https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Groundwater-Sustainable-Agencies.



lacks any factual or legal basis.

CalAm's line of reasoning is that, on April 27, 2017, DWR posted the notice of SVBGSA to become the GSA for the entire Subbasin and that, in its view, no other GSA filed a valid GSA notice for this Subbasin within 90 days, thereby essentially resulting in SVBGSA becoming the exclusive GSA for this Subbasin.²

In making this argument, CalAm relies on Water Code Section 10723.8, which provides that a local agency notice to become a GSA for a particular basin/subbasin "shall take effect" 90 days after posting if no other local agency has filed a notification of its intent to undertake groundwater management in all or a portion of the same area prior to expiration of this 90-day period. If another agency has such a notice posted before the expiration of this period, the GSA notice shall *not* take effect.

CalAm's first critical error in making this argument is that another local agency – Marina Coast Water District ("MCWD") – did file a GSA formation notice for a portion of the 180/400 Foot Aquifer Subbasin area that SVBGSA claimed in its GSA notice. It is undisputed that, on February 6, 2017, MCWD formed a GSA for the Fort Ord portion of this Subbasin and, on March 14, 2017, DWR posted the notice of this formation (even before SVBGSA filed its notice). Thus, since MCWD filed a GSA formation notice for a portion of the same Subbasin area that SVBGSA's later notice covered, SGMA Section 10723.8 prescribes that SVBGSA's notice did not take effect and SVBGSA never became the exclusive GSA for the Subbasin area it claimed.

CalAm attempts to explain away this complete roadblock to its Section 10723.8 contention by making a convoluted set of arguments that MCWD GSA's notice supposedly was not valid or effective and therefore should be completely ignored for SGMA purposes. It cites to a November 2, 2017 letter authored by a State Board attorney (attached as Exhibit G to its comment letter) that supposedly supports this argument. However, CalAm is mistaken and its citation is misleading.

At the outset, CalAm misrepresents the nature of the State Board letter by implying that it is somehow a dispositive determination by the State Board regarding the status of MCWD's GSA March 14, 2017 formation notice. To the contrary, the letter explicitly states that it is "merely advisory" and that "[t]hese opinions [in the letter] are not a declaratory decision and do not bind the State Water Board in any future determination." Moreover, CalAm also attempts to create the erroneous impression that the letter found that MCWD's GSA notice was void and must be disregarded by DWR. However, in so arguing, CalAm has entirely missed the central point of the letter. Rather than attempting to void MCWD's notice, the State Board letter was

² MCWD also formed a separate GSA for another portion of the 180/400 Foot Aquifer Subbasin (Marina Coast Water District GSA – Marina) at the same time and DWR posted notice of this GSA formation on February 24, 2017. This area was excluded from the area SVBGSA claimed in its own GSA formation notice.



explicitly intended to encourage SVBGSA and MCWD GSA to meet and work out their differences: "By way of this letter, I would like to encourage local resolution of the conflicts over groundwater management in Salinas Valley."

Indeed, that is exactly what occurred here. MCWD GSA and SVBGSA negotiated an agreement that resolved most of their various conflicting issues regarding the 180/400 Foot Aquifer Subbasin and Monterey Subbasin. In addition, in the advisory letter, the State Board attorney suggested that, if MCWD could expand its jurisdictional boundaries by annexation to include Fort Ord, it could become the "exclusive GSA" for the Fort Ord area. MCWD thereafter did annex this area with the final approval occurring in or about July 2019. Thus, rather than the MCWD GSA – Fort Ord notice being void (as CalAm contends), this notice eventually led to MCWD establishing its SGMA jurisdiction for the area covered by the GSA formation notice in the 180/400 Foot Aquifer Subbasin.

Notably, DWR does not agree with CalAm's argument regarding SVBGSA's alleged Subbasin exclusivity. To the contrary, DWR has consistently informed all parties that SVBGSA never achieved exclusive GSA status for the Subbasin under Section 10723.8 because of the timely filings of MCWD GSA for this Subbasin. Consistent with the local and collaborative policies contained in SGMA, DWR has encouraged the various GSAs in the Subbasin to work together to resolve any GSP conflicts. And, as prescribed by SGMA, DWR has clearly stated to all parties that no GSPs for Subbasin overlap areas will be accepted until such a resolution has occurred.

Thus, in light of this law and factual context, CalAm's demand that DWR "reject" MGSA's GSA formation and GSP preparation notices based on SVBGSA's alleged "exclusivity" is baseless. CalAm is not trying to further the purposes of SGMA or promote more effective groundwater management. Rather, it is only trying to promote is own narrow corporate agenda.

C. Contrary To CalAm's Innuendos, There Is Every Reason To Believe That MGSA's Sustainable Management of Groundwater In Its Subbasin Area Can And Will Be Effective.

CalAm attempts to create the erroneous impression that MGSA will not be successful in meeting the requirements of SGMA for its jurisdictional area. CalAm states that the covered area is "extremely small," that some of the technical information MGSA may rely on in forming its GSP is supposedly discredited, and that it is unlikely that MGSA will meet the January 31, 2020 deadline for completing the GSP. However, this is no more than the SGMA equivalent of throwing spaghetti against the wall to see if any will stick.

First, SGMA does not contain any minimum or maximum basin size for sustainable groundwater management. Rather, it implicitly recognizes that these sizes may vary substantially. Indeed, some of the GSA formation notices cover very small areas of larger basins. *See*, *e.g.*, Santa Barbara County Water Agency GSA -- Fringe Areas notice, posted on the SGMA Portal on September 22, 2017. Rather, one of the hallmarks of SGMA is its



recognition that local agencies will be in the best position to determine initially who should manage basins, to analyze local conditions, and to apply SGMA's sustainability criteria to these conditions. SGMA envisions local flexibility and has not mandated any artificial GSA jurisdictional area size requirements.

Second, CalAm complains (incorrectly) that some of the technical data and reports that MGSA may rely on in preparing its GSP "conflicts with the weight of the modeling and science supporting the MPWSP and has been repeatedly rejected by regulatory bodies and courts...." Although CalAm does not identify what reports it means, MGSA assumes that it refers to the Stanford University research studies regarding groundwater basin conditions that cover this exact area of the Subbasin. Unfortunately, CalAm misleads DWR regarding this technical information.

The Stanford University studies used well-accepted scientific methodologies (including state-of-the-art electrical resistance tomography ("ERT") and airborne electromagnetic ("AEM") techniques) to create two- and three-dimensional images of the actual hydrostratigraphic and groundwater quality conditions, and seawater intrusion characteristics, in portions of the 180/400 Foot Aquifer Subbasin, including the MGSA jurisdictional area. In brief, the studies found that there are significant areas of higher quality groundwater in areas of some seawater intrusion, identified an existing freshwater wedge that was retarding seawater intrusion, and identified gaps in the soil layers (aquitards) that are allowing vertical migration of saline water to the deeper aquifers. This is valuable data, gathered by one of our country's leading educational institutions, that should be utilized, along with all other available data, to prepare a GSP for this area.

It is significant that the northward extension of the same datasets are being used by other agencies for SGMA groundwater sustainability planning purposes. For example, in its recent draft GSP for the Santa Cruz Mid-County Subbasin, the Santa Cruz Mid-County Groundwater Agency (MGA) notes the following:

In May 2017, the MGA successfully completed an offshore Airborne Electromagnetic (AEM) geophysical survey to assess groundwater salinity levels and map the approximate location of the saltwater/freshwater interface in the offshore groundwater aquifers. This important data will inform the assessment of the extent and progress of seawater intrusion into the Basin and the management responses. The MGA anticipates repeating the AEM survey on a five-year interval (2022) to identify movement of the interface and assess seawater intrusion.

This is only one example of the use of this state-of-the-art technology for sustainable groundwater management planning in California.

CalAm appears to be making a ridiculous argument that this Stanford data must be ignored in preparation of the GSP. However, a GSA is not a court of law. Rather, it is a groundwater management agency that has an obligation to gather and evaluate all water basin



data potentially relevant to SGMA's sustainability criteria. By trying to inject an issue regarding what data supposedly supports or contravenes "the weight of the modeling and science" for CalAm's particular project, CalAm is misperceiving the purpose and function of a GSA that is in the midst of preparing a GSP. Further, CalAm's has misled DWR by stating that this technical information "has been repeatedly rejected by . . . courts." In fact, no court has rejected this technical information. Indeed, the one regulatory agency that even considered a small early subset of this data – the California Public Utilities Commission – did not "reject" it.

Third, CalAm asserts that one "practical" ground for rejecting MGSA's GSP preparation notice is that MGSA supposedly will not be able to meet SGMA's January 31, 2020 deadline for submitting a GSP. To the contrary, MGSA has a schedule in place that meets all of SGMA's requirements for public notice and comment, MGSA consideration and decision on the GSP, and timely submittal of the GSP to DWR. Even so, CalAm's uninformed speculation about completion of the GSP is not, of course, a credible ground for rejecting a GSP preparation notice. SGMA does not prescribe any minimum time period for the actual preparation of a GSP. Indeed, given the focused nature of the GSP here, there is every reason to believe that it will be completed in a timely manner.

Finally, CalAm's letter displays a dismissive attitude toward the City of Marina³ and questions the legitimacy of its interest in managing the groundwater in this Subbasin. In so doing, CalAm ignores the City's long-standing track record in protecting groundwater at the property (sometimes referred to as the "CEMEX" property) that is the subject of the MGSA notices. For example, in 1996, the City entered into an extensive Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands ("Annexation Agreement") with several other parties, including the CEMEX property owner. The expressed purpose of the Annexation Agreement is "to help reduce seawater intrusion and protect the groundwater resource and preserve the environment of the Salinas River Groundwater Basin through voluntary commitments by the Parties to limit, conserve and manage the use of groundwater from the Salinas River groundwater basin. . . ." The groundwater conditions on the CEMEX property were one main focus of the Annexation Agreement.

The City also worked closely with the California Coastal Commission and the State Lands Commission in a series of combined enforcement actions in 2016-17 to end the current sand mining operation on the CEMEX site by December 31, 2020. After decades of efforts to end this environmentally destructive use, this termination was achieved through a settlement approved by all three agencies. In addition to terminating this mining use at the end of next year and gaining full restoration of the site, the settlement requires CEMEX to transfer the entire site at a reduced purchase price to a non-profit organization or government entity approved by the Coastal Commission and the City. As part of this conveyance, a deed restriction will be put in

³ The City of Marina has a working class, ethnically diverse population, many of whom do not speak English. Marina is a recognized "disadvantaged community" at state, federal and local government levels. The groundwater under the City is an important and valuable community resource because it is provides a clean, local and affordable groundwater source for City residents.



place to protect the CEMEX property and limit its potential uses to public access, conservation, low-impact passive recreation, and public education.

In sum, the City has a demonstrated interest and a 25-year track record in taking action to identify and protect this groundwater under MGSA's jurisdiction. MGSA expects to file a GSP with DWR by January 31, 2020 that fully complies with the groundwater sustainability requirements of SGMA and results in effective and sustainable groundwater management for many years.

D. CalAm's Articulated "Policy" Reasons For Rejecting MGSA's GSP Notice Are Contrived And Unpersuasive.

CalAm argues that rejection of MGSA's GSP notice is required to eliminate "uncertainty" about SVBGSA's GSA and GSP status and that MGSA's notice of GSP preparation supposedly could cause "significant damage" (unspecified) to the work that SVBGSA has undertaken. This is no more than empty rhetoric. The "uncertainty" that CalAm refers to is inherent in the structure of SGMA and has not been created by MGSA, SVBGSA or DWR. SGMA contemplates that there will be overlapping GSA jurisdictional claims and GSP notices and it contains built-in incentives and provisions for the involved parties to resolve these claims on the local level and, if these are unsuccessful, a resolution process at the State level. At this point, these processes are just beginning and they will be concluded in the manner SGMA contemplates.

Contrary to CalAm's rhetoric, MGSA's notices are not causing any damage, much less "significant damage," to SVBGSA's work. By all appearances, SVBGSA is moving forward in preparing and completing its GSP. Regardless of the outcome of the overlap in the jurisdictional area, SVBGSA's work will be valuable and important to completing its GSP. There is no indication that SVBGSA has violated or will violate the terms of the grants it has received, so CalAm's assertion that SVBGSA could potentially lose or need to return such funds is wholly unsupported and unrealistic.

In contrast, the action that CalAm seeks in its letter (DWR rejection of MGSA's GSA and GSP notices) would be catastrophic to MGSA. MGSA has properly formed, begun preparation of a GSP and committed all of the funds necessary to complete and file its GSP by January 31, 2020. CalAm's request is no more than an unlawful attempt to disenfranchise MGSA of its SGMA rights and would plainly thwart the goals of SGMA.

CALAM'S ATTEMPTED INTERVENTION INTO THE GSA/GSP PROCESS WOULD UNDERMINE SGMA'S LOCAL COLLABORATIVE GSP PROCESSES.

CalAm is a private party with its own narrow corporate interest in promoting a project that it would like to build in Monterey County. It is not a GSA and it is not preparing a GSP to sustainably manage groundwater in the 180/400 Foot Aquifer Subbasin. Rather, it is a member of the public that has been and will be provided with many opportunities under SGMA (which is



notable for its robust public participation provisions) to participate in the preparation of GSPs for the Subbasin and to participate in other ways as the SGMA process proceeds. Apparently not content with this role, CalAm is trying to interfere in and short-circuit the SGMA process. However, this interference is unauthorized and cannot be allowed.

One bedrock set of principles in SGMA is its structural recognition of local control and cooperative local management of groundwater. Its overall goal is to "enhance local management of groundwater." Water Code § 10720.1(b). SGMA also contemplates that state intervention only occur when absolutely necessary. SGMA articulates the Legislature's intent to "manage groundwater basins through the actions of local government agencies to the greatest extent feasible, while minimizing state intervention to only when necessary to ensure that local agencies manage groundwater in a sustainable manner." Id., § 10720.1(h)(emphasis added). Moreover, "[i]t is the intent of the Legislature to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdiction." Id., § 10750(a).

These themes of local management, minimization of state intervention, and local agency cooperation run throughout SGMA. This is especially the case with regard to formation of GSAs and to basin management through GSPs. SGMA recognizes that multiple GSAs can be formed and multiple GSPs can be prepared to manage a single groundwater basin or subbasin. *See*, *e.g.*, *id.*, § 10720.7(a)(1)(recognizing that subbasins can be managed by "coordinated groundwater sustainability plans"); *id.*, § 10727(b)(recognizing that multiple GSP's can be used to manage a basin pursuant to a "single coordination agreement"). The SGMA mechanism for achieving this coordination is a coordination agreement, which means "a legal agreement adopted between two or more GSAs that provides the basis for coordinating multiple agencies or groundwater sustainability plans within a basin." *Id.* § 10721(d).

SGMA envisions that, when there are jurisdictional overlaps in a basin, the GSAs first negotiate in good faith with one another to resolve the overlap. If these overlaps are not resolved and both GSAs submit a GSP for the overlap area, the GSPs will not be accepted (as DWR has confirmed). MGSA staff has met with SVBGSA staff and is working in good faith to negotiate a coordination agreement and will continue to do so.

CalAm is attempting to precipitate premature state action to undermine the SGMA collaborative local GSP processes. This would violate the legislative directive to minimize State intervention "to only when necessary to ensure that local agencies manage groundwater in a sustainable manner." *Id.*, § 10720.1(h). At this stage of the process, the MGSA and SVBGSA GSPs have not been prepared and submitted to DWR, and no determination can yet be made as to whether they ensure sustainable groundwater management. CalAm cannot be allowed to subvert these important, ongoing SGMA processes.

CONCLUSION

For all of the reasons set forth above, MGSA respectfully requests that DWR take no action in response to the CalAm August 12, 2019 comment letter. As DWR's regulations state, DWR "is not required to respond to comments, but shall consider comments as part of its



evaluation of a Plan." 23 C.C.R. § 353.8(f). However, if DWR believes that any response is necessary, it should deny in its entirety CalAm's request to "reject" MGSA's GSA formation notice and/or GSP preparation notice.

Very truly yours,

Paul P. "Skip" Spaulding, III

PPS:jla

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EXHIBIT 2



October 21, 2019

Via E-mail and Mail

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Re:

Monterey County's October 9, 2019 SGMA Letter

Marina Sustainable Groundwater Agency Jurisdictional Area

Dear Ms. Ravazzini and Ms. Sobeck:

On behalf of the City of Marina Groundwater Sustainability Agency ("MGSA"), we are responding to Monterey County's October 9, 2019 letter informing the Department of Water Resources ("DWR") and the State Water Resources Control Board ("State Board") of its intent to consider becoming the Groundwater Sustainability Agency ("GSA") for a portion of the 180/400 Foot Aquifer Subbasin ("Subbasin").

INTRODUCTION

In brief, Monterey County ("County") apparently plans to supplant MGSA and become the exclusive GSA for MGSA's jurisdictional area because MGSA and the Salinas Valley Basin GSA ("SVBGSA") have filed overlapping GSA notices for the approximate 400-acre portion of the Subbasin within the City of Marina. DWR and the State Board should firmly reject any County effort to usurp MGSA's GSA authority. The Sustainable Groundwater Management Act ("SGMA") provides for a local agency resolution process to resolve overlapping GSA notices and uncoordinated Groundwater Sustainability Plans ("GSPs"). MGSA and SVBGSA have until January 31, 2020 to negotiate and submit a coordination agreement. Then, if an overlap has not been resolved, SGMA specifies a resolution process implemented by the State Board, which includes a mandatory 180-day negotiation/mediation provision.

¹ In its letter, the County states in several places that it "will consider" taking actions to become the GSA for this property. However, at the end of the letter, the County requests that the agencies let them know if they "have concerns about **the County's plans** to become a GSA for the CEMEX property, as outlined above." (Emphasis added.)



Four independent reasons compel cessation of any Monterey County efforts to become the GSA for this overlap portion of the Subbasin:

- SGMA Section 10724 does not provide a platform for Monterey County to replace MGSA for this area;
- Since it is creating and/or contributing to the overlap, Monterey County cannot invoke Section 10724;
- If it tried to invoke Section 10724, Monterey County would be unlawfully circumventing the explicit local agency coordination requirements and GSP resolution provisions in SGMA; and
- Intervention by DWR or the State Board in support of Monterey County would be premature and inappropriate.

SGMA CONTEXT

Both MGSA and SVBGSA filed notices of their GSA formation and of their intent to prepare GSPs for the Subbasin. While SVBGSA's notice covers the entire Subbasin, MGSA's notice applies only to an approximate 400-acre portion of the Subbasin within the City of Marina's jurisdictional boundaries. Thus, MGSA and SVBGSA have overlapping claims to this portion of the Subbasin.

When competing GSA notices cause overlapping boundaries, SGMA prevents a GSA decision from "tak[ing] effect unless the other notification is withdrawn or modified to eliminate any overlap in the areas proposed to be managed." Cal. Water Code § 10723.8(c). SGMA instructs the local agencies to "seek to reach agreement to allow prompt designation of a groundwater sustainability agency." *Id.* SGMA further requires GSAs "intending to develop and implement multiple groundwater sustainability plans" to "coordinate with other agencies preparing a groundwater sustainability plan within the basin." *Id.* § 10727.6. The GSAs must "jointly submit" their GSPs with a coordination agreement "to ensure the coordinated implementation of the groundwater sustainability plans for the entire basin." *Id.* § 10733.4(b); see also Cal. Code Regs. tit. 23, § 357.

Accordingly, when GSAs file overlapping claims, SGMA envisions a process where those agencies negotiate in good faith to reach a compromise and enter into a coordination agreement which they submit with their GSPs. The GSPs and coordination agreement between MGSA and SVBGSA for the Subbasin must be filed by January 31, 2020.

MGSA is complying in all respects with SGMA. It properly formed its GSA, provided the requisite notice of its intent to prepare a GSP, issued a draft GSP on October 8, 2019 and is on schedule to file an approved GSP with DWR by the January 31, 2020 deadline. By



committing the necessary (and significant) financial resources and following the prescribed SGMA process, MGSA has being doing exactly what the law requires and it is entitled to complete this process.

I. SGMA Section 10724 Does Not Apply To This Situation Because Multiple GSAs Have Asserted SGMA Jurisdiction Over The Overlap Area.

The County relies primarily on Water Code Section 10724(a) for its potential plan to eliminate MGSA and take over its SGMA jurisdictional area. This provision states:

In the event that there is an area within a high- or medium-priority basin that is not within the management area of a groundwater sustainability agency, the county within which that unmanaged area lies will be presumed to be the groundwater sustainability agency for that area.

Cal. Water Code § 10724(a) (emphasis added).

The County is mistaken in asserting that this provision is applicable here. As SGMA's legislative history reflects,² Section 10724 is intended to cover situations where no GSA asserts jurisdiction over an area within a basin, not where multiple GSAs assert jurisdiction and prepare GSPs for a particular area. When multiple GSAs adopt GSPs to manage such an area, the area is within the management area of several GSAs. Section 10724 comes into play when no local agency shows an interest in a particular basin area (thereby making it "unmanaged") and a county is thereafter given the option to become the GSA of that area. If the county declines, the area will instead be managed by the State Board. No DWR regulations or any judicial decisions interpret this section or alter its plain meaning.

The County argues that this provision should also be applied in a multiple GSA situation. The County attempts to conflate the provisions for establishing an exclusive GSA under SGMA Section 10723.8 with Section 10724 to reach a faulty conclusion that, because of the overlapping area in MGSA's and SVBGSA's GSA notices, the areas should be deemed to be "unmanaged." However, the County inaccurately reads Section 10724(a) as addressing disputes arising under the process for determining an exclusive GSA under Section 10723.8 and incorrectly presumes that where overlapping GSAs jurisdictional claims exist, there is no GSA to manage an area.

MGSA acknowledges that one guidance statement from the State Board opines that "[i]f two or more local agencies overlap, the combined area will be deemed unmanaged" and asserts that a county potentially could become a GSA in this situation. State Board, Frequently Asked

² The Legislature intended Section 10724 to apply "in the case of an area where no local agency has *assumed* management." S. Rules Comm., Floor Analysis on S.B. 11168 at 4 (Aug. 29, 2014) (emphasis added). In particular, the Legislature linked this provision to whether a local agency has acted to assume management over an area – not whether the local agency has become the exclusive GSA.



Questions on GSAs, at 3 (Nov. 22, 2017) ("SWRCB FAQs"). However, this interpretation is not consistent with the intent, legislative history, and text of Section 10724 and is unsupported by any official regulation or case law. Even so, the State Board attaches an important caveat to this interpretation: if a county is "creating or contributing to the overlap, the county does not become the presumptive GSA." As explained in the next section, this rule disqualifies Monterey County from taking such an action.

In sum, it is not a reasonable interpretation of SGMA to read Sections 10723.8 and 10724 together in this manner, nor does SGMA define its use of the term "unmanaged." Rather, these GSA and GSP provisions are best read as operating at the same time on parallel tracks. Consistent with this interpretation, Section 10724(a) does not require that a basin be within the management area of an exclusive GSA. Where multiple GSAs file to manage the same basin area, the clear text in Section 10724(a) does not support Monterey County's ability to claim the area is unmanaged. This is especially true when, as here, both of the GSAs are on track to submit their GSPs, and a coordination agreement is not due for any overlap areas until the January 31, 2020 GSP submittal deadline.

II. Since Monterey County Is Creating And/Or Contributing To This GSA Overlap, It Is Disqualified From Invoking Section 10724.

Guidance from the State Board and DWR places a very important limitation on Monterey County's authority to become a GSA for an unmanaged area under Section 10724: "If a county is creating or contributing to the overlap, the county does not become the presumptive GSA." SWRCB FAQs at 3; see also DWR, GSA Frequently Asked Questions, at 4 (May 10, 2019).

The County argues that it is a completely separate entity from SVBGSA and thus could not be creating or contributing to the overlap. However, the facts do not support this claim. Monterey County was a moving force behind SVBGSA's formation and even "pushed for the establishment of the Joint Powers Authority" ("JPA"). SVBGSA Minutes at 2 (Sept. 19, 2019). Monterey County is a member of SVBGSA and the County Administrative Officer position (who authored the County's October 9, 2019 letter) is designated as the official County representative to SVBGSA. (*See* Exhibit A to SVBGSA's JPA Agreement.) Section 10.4 of the JPA Agreement for SVBGSA reflects that the County has provided almost 60% of all initial funding for SVBGSA during the 2017–19 period, totaling \$1.34 million. The Monterey County Counsel's office has served as the attorney for SVBGSA as it filed GSA and GSP notices and even prepared the GSP that the County now proposes to adopt after it eliminates MGSA. Indeed, the law reflects that a JPA agreement allows "two or more public agencies by agreement [to] jointly exercise any power common to the contracting parties." Cal. Gov't Code § 6502.

In short, it is wholly unpersuasive for the County to assert that it is a separate entity from SVBGSA and therefore is not creating or contributing to the overlap situation. In actuality, the County, as a member, majority funder and driving force in the SVBGSA, is indisputably creating and/or contributing to the overlap situation and cannot masquerade as a disinterested county



agency coming in under a ministerial application of Section 10724 to resolve a dispute among two local GSA agencies.

This is exactly the kind of conflict situation envisioned by the DWR/State Board guidance where a county is disqualified from attempting to invoke Section 10724. Monterey County's contemplated actions here vividly illustrate these dangers. The County is responding to a request by an affiliated entity (SVBGSA) of which it is the primary funder, to consider using its powers to prevent the City of Marina from exercising its GSA authority. Monterey County has announced its intention to adopt SVBGSA's GSP for the overlap area – the same GSP that the County helped design as a member of SVBGSA. Notably, Monterey County fails to present any groundwater management justification for asserting control over the overlap area. It is exactly to prevent such county conflicts that the "creating or contributing" limitation was adopted.

SVBGSA and the County are being encouraged by California-American Water Company ("CalAm") to take these actions to promote its Monterey Peninsula Water Supply Project ("Project"). In its October 9, 2019 letter to SVBGSA, copied to the Monterey County Administrative Officer, CalAm requests both entities to "defer any action on a coordination agreement" with MGSA and instead requests that the County become the GSA for the overlap area. CalAm takes the ridiculous position that MGSA is only preparing a GSP to stop its Project and attempts to enlist the County so it can build the Project. CalAm is not a GSA and, as a private corporation intent on profit, it has no interest in ensuring sustainable groundwater management in the Subbasin. Rather, it is a third party with no official role in this SGMA process attempting to pressure public agencies to achieve its corporate goals. By advocating to stop any coordination agreement discussions, it is also trying to artificially create an impasse in hopes of a County takeover or state intervention.

As a DWR representative has already informed SVBGSA, the County would need to withdraw from the SVBGSA if it intends to take any action under Section 10724. According to the minutes of the September 19, 2019 SVBGSA Advisory Committee meeting, a DWR representative (Tom Berg) stated to SVBGSA:

Monterey County can remove itself from the SVBGSA and become the GSA for the unmanaged area and enter into a coordination agreement. The cleaner approach is if Monterey County decides there is an overlap and becomes the GSA for the entire 180/400 Subbasin. They can become the GSA for only Marina if they do not create the GSA with the intent to take over Marina's portion. You can resolve the overlap and trust Marina will timely submit their Plan. If the Plan is determined to be insufficient during the two-year review, the Water Board could determine the entire Subbasin to be insufficient. He expects legal fights if Monterey County takes over the Subbasin. Mr. Berg referenced the determination that Kern County had created



their overlap conflict, and they were prevented from becoming the GSA as a result.

Tom Berg stated that during the telephone conversation with Mr. Nordberg, DWR, it was suggested that the cleaner approach is for Monterey County to become the GSA for the entire basin. If the County becomes the GSA only for Marina, it is no longer ministerial in terms of taking out Marina instead of just trying to clear the overlap.³

Id. at 3–4 (emphasis added).

There are explicit withdrawal provisions in Sections 11.6 and 11.8 of SVBGSA's JPA Agreement that the County could utilize to accomplish this withdrawal. Moreover, after withdrawal, the County would need to assert jurisdiction over all overlap areas in the Subbasin. This would, of course, cause needless and extensive organizational and financial harm to all GSAs with overlapping claims and would completely undercut SGMA's goals.

In actuality, "SGMA requires the agencies to resolve" boundary disputes. SWRCB FAQs at 3. The State Board only deems an area unmanaged until the GSAs resolve their conflict. *Id.* This limitation aligns with the intended purpose of Section 10724 to function as a safety valve, allowing a county to assume the role of a GSA in a ministerial manner as a last resort or as a temporary solution before a local agency can take control. Instead of serving that purpose, Monterey County would be using Section 10724 to target only the City of Marina and block it from exercising its GSA authority and implementing its GSP. This effort would contravene SGMA's emphasis on and processes for local agency cooperation and basin management.

III. Monterey County's Potential Action Would Fatally Undermine SGMA's GSA Collaboration Process.

SGMA specifies a specific process for GSAs who file overlapping notices to coordinate and submit a joint GSP or set of GSPs. *See* Cal. Water Code §§ 10727.6 and 10733.4(b). The Water Code likewise provides a process for resolving disputes, in the event that GSAs fail to coordinate and submit joint GSPs for a critically overdrafted basin by the January 31, 2020 deadline. In that situation, the State Board can designate that basin as probationary. *Id.* §§ 10735.2(a)(2) and 10735.2(a)(3) (providing that the State Board can also make a probationary designation after finding that a GSP is inadequate). The State Board must give the local agencies or GSAs "180 days to remedy the deficiency," and "[t]he board may appoint a mediator or other

³ The minutes reflect that a representative of Monterey County (Charles McKee) attended this meeting.

facilitator . . . to assist in resolving disputes, and identifying and implementing actions that will remedy the deficiency." *Id.* § 10735.4(a). Disagreements over overlapping portions of the basin are covered by this provision.

If it tried to eliminate MGSA's authority over the overlapping area and intervene as the exclusive GSA, the County would be improperly using Section 10724 to implement the GSP of its affiliated GSA entity, violating State Board and DWR guidance directly on point, and undermining SGMA's dispute resolution processes. This action would set a dangerous precedent that could incentivize the misuse of Section 10724 by counties.

IV. DWR And State Board Intervention Is Premature And Legally Unauthorized.

MGSA and SVBGSA are entering a critical time for collaboration to meet the January 31, 2020 GSP submission deadline. Monterey County's potential plan to assert itself as the GSA for the MGSA jurisdictional area threatens to derail this process. Intervention by DWR or the State Board to support Monterey County would similarly quash any possibility of compromise between the two GSAs. Unfortunately, CalAm is urging a strategy to promote its own narrow agenda, likely because it does not want to comply with the GSP of MGSA or with MGSA oversight of its potential groundwater source. However, MGSA and SVBGSA must negotiate in good faith and be given the opportunity to complete the local agency coordination process prescribed by SGMA. The Water Code specifically provides for State Board intervention if MGSA and SVBGSA cannot meet the January 31, 2020 deadline. *See* Cal. Water Code § 10735.2(a)(2). Any actions that interfere with or undermine these SGMA processes are premature and inappropriate.

CONCLUSION

For the foregoing reasons, DWR and the State Board must immediately inform Monterey County that Section 10724 is not applicable in this situation. The County, as the moving force, member, primary funder and general legal advisor to SVBGSA, has created and or contributed to the overlap situation and is therefore disqualified from using this provision. Supporting CalAm's reluctance to be governed and monitored by the government entity with the overlying interest, does not support SGMA and the intention of the Legislature to sustainably manage groundwater. The City of Marina's formation of MGSA to prepare its own GSP to govern critical groundwater resources within its jurisdiction is consistent with the spirit and language of SGMA.

Thank you for giving MGSA the opportunity to provide comments on this important issue. We are certainly available to discuss these issues with you.

Very truly yours,

Paul P. "Skip" Spaulding, III

PPS:jla

cc: Mark Nordberg, Department of Water Resources

(via e-mail Mark.Nordberg@water.ca.gov)

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Layne Long, Marina City Manager

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Marina City Council (via e-mail)

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Deborah Mall, Marina Assistant City Attorney

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ATTACHMENT 2



CITY OF MARINA

211 Hillcrest Avenue Marina, CA 93933 831-884-1278; FAX 831-384-9148 www.cityofmarina.org

November 21, 2019

Gary Petersen General Manager Salinas Valley Basin Groundwater Sustainability Agency

Re: MGSA/SVBGSA Coordination Agreement Discussions

Gary,

I wanted to follow up on our previous discussions regarding a coordination agreement with SVBGSA and next steps to move this forward. I understand from our last telephone conversation that you have received direction that the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) will only agree to meet with the Marina Groundwater Sustainability Agency if MGSA "agrees to give up its GSA." From MGSA's viewpoint, this is not a negotiation on a coordination agreement; rather, it is a request that MGSA go out of existence, which is of course not acceptable.

We continue to be ready to have a discussion on a coordination agreement that will comply with the Sustainable Groundwater Management Act. We strongly encourage SVBGSA to negotiate in good faith to achieve this goal.

Sincerely,

Layne Long

City Manager/Executive Director

City of Marina-Marina Groundwater Sustainability Agency

December 25, 2019

Gary Petersen, General Manager

Members of the Board

Salinas Valley Basin Groundwater Sustainability Agency

We, the signers of this letter, are farmers and landowners in the 180/400, commonly referred to as the Pressure. The 20-year Groundwater Sustainability Plan for the Pressure that your agency is about to submit to the State Department of Water Resources will have a substantial effect on the operations and economics of our companies.

We believe there is an easily correctable problem in the plan.

Project 1, found in section 9.4.3.2, is Invasive Species Eradication (arundo and tamarisk). According to the plan, this project "will reduce evapotranspiration from these invasive plants, leaving more water in the Salinas River and increasing aquifer recharge or reducing the amount of water required to be release from Nacimiento and San Antonio Reservoirs." All vegetative overgrowth in the river, not just invasives, contributes to these problems. Project 1 should be changed so that all vegetative overgrowth is managed, not just invasives, in order to reduce evapotranspiration and leave more water in the river.

Your plan will force us to pay millions of dollars for projects. It will also potentially subject us to management actions such as reduced pumping. These costs and actions are not acceptable if the SVBGSA leaves cheap water on the table from river evapotranspiration.

We ask that you amend Project 1 for the following reasons:

- 1. Evapotranspiration reduction. Brown & Caldwell's 2015 report states that up to 50,000 acre/feet of water are lost every year due to evapotranspiration from river vegetation overgrowth.
- Increase conveyance of water in the river. This will benefit other GSP projects, such as water diversion for the Eastside Canal and operation of the SRDF.
- 3. Increase water available for percolation in the river.
- 4. Operation and re-operation of the reservoirs (9.3.4, #2 "Allow summer flows to better reach the SRDF") directly contribute to vegetation overgrowth in the river. The SVBGS needs to mitigate the negative side-effects of its projects and actions.
- 7. River vegetation management would be cheap in comparison to the plan's other projects. Chapter 9 estimates water cost from Invasive Species Eradication at \$160 AF/year, which is theoretically higher than non-invasive vegetation management, as invasives require pesticides. Other projects' water costs are even higher: CSIP Optimization is \$270 AF/year, CSIP Expansion is \$630 AF/year, SRDF

Maximization is \$220 AF/year, Extraction Barrier is \$590 AF/year and the Chualar Diversion is \$750 AF/year. In context with these expensive water sources, leaving cheaper water on the table is poor fiscal stewardship.

8. The total capital costs of projects 1-9 in the 20-year-plan, according to your draft, total \$385,000,000.00 with an additional \$24,000,000.00 in annual O&M costs. Why should we pay for high cost projects when a relatively inexpensive project like river vegetation maintenance is being ignored?

We ask that you amend Project 1 to include vegetation management before you submit the plan to the State Department of Water Resources.

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THE MUNES COMPANY, INC.

Stephn de Farinin

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Stephen de Lorimier

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BASISO CARIFORNIA

Molym

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